

**Эволюция газовой стратегии России на европейском направлении в контексте изменений на международных газовых рынках и в глобальной конкуренции
(вгляд автора – приглашение к дискуссии)**

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The author's view (and invitation to debate) on evolution of Russia's gas export strategy within changing global economic and gas landscape: European dimension

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Presentation at the conference-seminar "Global & local markets of oil, gas & petroleum products: analysis & forecasting, pricing, trade flows", Moscow, 20 September 2018, Metropol hotel

Presentation structure

- General trends in (evolution of):
 - global macroeconomic competition & changing role of key players
 - international gas markets & role of LNG
 - gas demand vs import gas demand in Europe & role of decarbonisation
 - European gas supplies & role of new Russian gas export strategy

Gas demand vs import gas demand in Europe & role of decarbonisation

- EU mature gas market => stagnation (decline?) of gas demand, but growth of import gas demand
 - Domestic gas production decline (UK/Norway North Sea, Groningen)
 - Coal/nuclear power stations withdrawal
- Gas was long victimized as being a fossil fuel => has been considered as transition fuel to decarbonized EU energy => now CEC vision is changing
- From “RES-based” (digital, electrical, renewable) to “RES plus (decarbonized) gas-based” EU energy future; a stated concept =>
 - New potential for additional Russian gas supplies to the EU
 - Pipeline & LTC cross-border gas supplies to EU are immanently more appropriate for decarbonisation (from economic standpoint) than spot and/or LNG supplies
 - Topical question: at which particular part of the cross-border gas value chain would be mutually beneficial to decarbonize gas: upstream, midstream or downstream; how to balance costs and rewards
 - Topic for Russia-EU inter-government cooperation in gas since decarbonisation is a cross-border issue (topic in the agenda of WS2 GAC)

International gas markets & role of LNG

- From regional (mostly pipeline-based) gas markets to global gas (pipeline + LNG) market => LNG as integrator (*IEA: LNG as “second gas revolution”*)
- Changing institutional structure of LNG market
 - From historical base-load LNG demand (Japan, Korea, Taiwan) to increased flexible demand (SoS)
 - from “economy of scale” with fixed destination - to flexibility (from DES to FOB) & portfolio purchases
 - Floating (FSRU/FSLU) & small-scale LNG
 - contract duration & volumes diminish, company size for entering LNG market as well
 - regional price differences became “spreads” (W.Peters) => price arbitrage deals a driver
- EU sees LNG as competitor to (Russian) pipeline gas (diversity of supplies), but large-scale LNG producers prefer other (non-EU) markets
 - 25% utilization rate of EU regas facilities means EU market is less attractive;
 - Not enough connecting pipelines from regas facilities to inside EU
 - Russian pipeline gas in EU won its dominant niche at EU market in global competition (in fair play) with international LNG (S.Dale) since it is cheaper than (US) LNG (now a given fact)
 - How to fulfil US-EU Summit decision (as of 25 July 2018) on US LNG purchases for EU?
 - EU to co-finance (under PCI) & build 9-11 new regas LNG terminals & connecting North-South pipelines in the “Intermarium” area?
 - US LNG in EU diminishes EU welfare but favours US business (expanding its market share)
 - “Security premium”? But under “LNG flexibility” producer or LNG off-taker decide (even PIGNiG has recently signed FOB, not DES, US LNG contract)
 - Artificial barriers for Russian pipe gas to EU in favour of US LNG? (2017/2018 CEC Quo Vadis project)
- A new market option: Russian small-scale LNG to the EU (Baltic, Black sea, Danube areas)

Global macroeconomic competition & changing role of key players

- Three historic world economic centers (US/NA, WE/EU, Asia-Pacific/SEA)
- But: Growing role of emerging economies (BRICS et al) as additional world economic centers => tightening global economic competition both between “old” and “new”, & within “old” economic centers => threat for US dominance
 - Two ways (policies) to protect one’s competitive niche (to become more competitive yourself, to make another one less competitive)
 - USA (under “America First” & “US Global Energy Dominance” doctrines) is to improve its global competitive niche for the account of the “partners” => of the EU (!)
- EU as a “weakest player” among “old” economic centers:
 - Non-homogenous EU post-2014: expectations (pre-2014) & realities (post-2014) for new EU MSs - a deathblow to hopes on equality & same economic prosperity
 - Two EUs – “old” and “new” EU MSs: “old” EU MSs are EU-oriented, “new” EU MSs are US-oriented;
 - demand for “external threat” for “new” EU MSs in respond to their non-equal (secondary) role in the EU & thus for closer ties with US over the head of Brussels
 - On top of this: refugees, BREXIT, US & EU anti-Russia (means: anti-EU) sanctions, etc., which weakens EU global competitiveness
- Increasing energy costs for EU (proposed US LNG instead of Russian pipeline gas) will further decrease EU global competitiveness & welfare (*Nothing personal. America First. Only business.*) => Russian gas to improve EU global competitive positions

New Russian gas export strategy in European gas supplies (this author's vision)

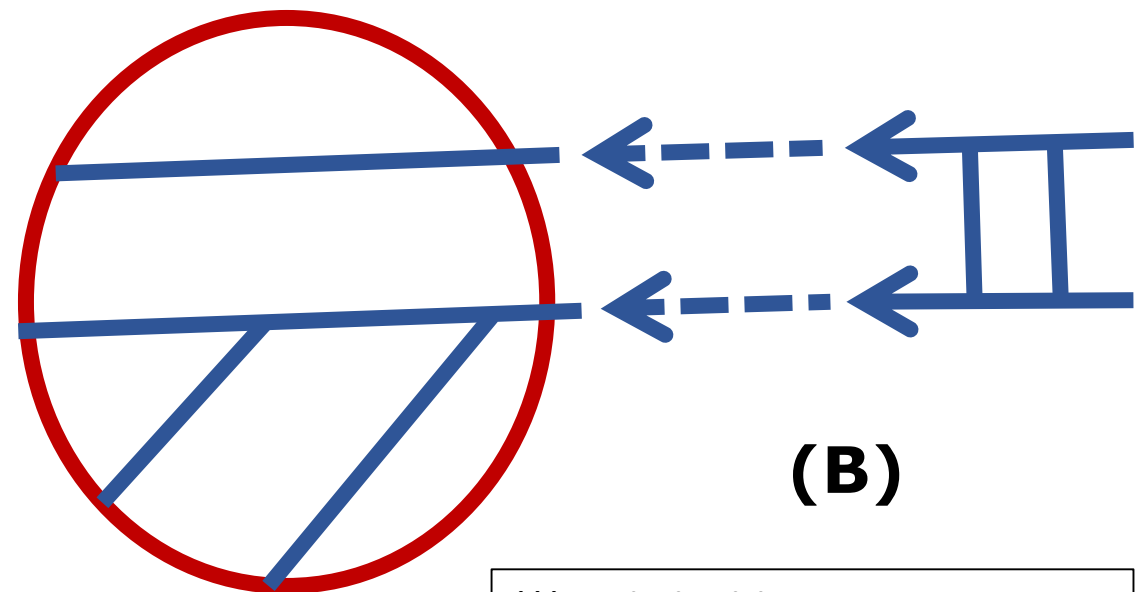
- EU - target gas market for Russia => to cover incremental import demand:
 - in line with EU gas market regulatory rules (further contractual adaptation) +
 - to obtain adequate (best effective) supply infrastructure => from linear/radial (pre-2019) to circle-radial (post-2019) Russian gas supplies to the EU
- Changing role of transit routes: from key export corridors to supporting (back-up) corridors; by-passes are the new key routes
 - By-passing UA pipelines:
 - Not “Putin’s pincers” (acc. to some international media), but diversity of supplies to the mutual benefit (transit risk mitigation) of producer/seller & consumer/buyer (Russia & EU)
 - Economic justification of by-passes (comparative economic task)
 - Access to transit capacities post-2019:
 - under Third EU Energy Package (2017 CAM NC INC) rules (UA a party to Energy Community Treaty): demand for capacity (open season); Entry-Exit tariffs => ring-fenced route/capacity & separate EU-certified TSO => EU TSO; financing capacity modernization with IFIs (escrow accounts as political risk mitigation tool); 1st step: 30 BCM (2 UPU lines into one)

Reserve slides

(A) Moscow metro network – an illustrative example of the circle-radial system;



(B) pre-2019 (radial*) and post-2019 (circle-radial) simplified vision of the Russian gas supplies to the EU**

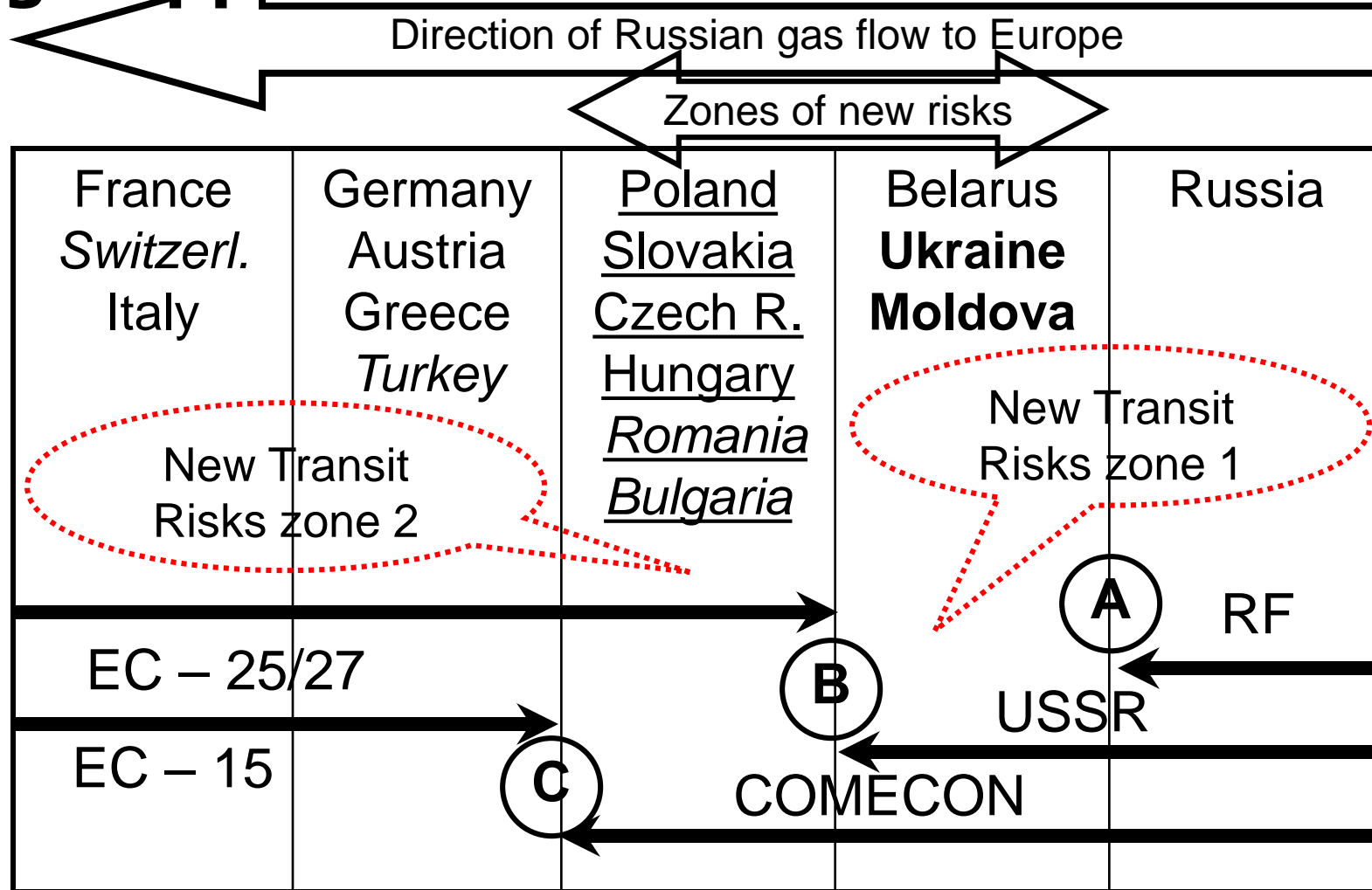


(*) radial = blue
 (**) circle-radial = blue + red

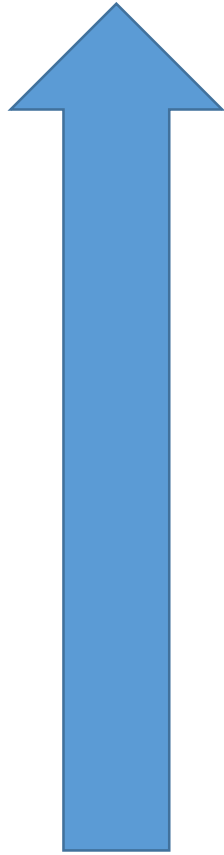
(A)

(B)

Russian Gas Supplies to Europe: Zones of New Risks for Existing Supplies Within Russia's Area of Responsibility



Italic – non-EU countries; New EU accession states: underlined – since 01.05.2004, underlined + italic – since 1.01.2007; **Bold** – FSU states members of ECOMT; A, B, C – points of change of ownership for Russian gas and/or pipeline on its way to Europe



Direction of logical chain in development of transit risks - **bottom-up approach**: *the name of the transit country is the element of last importance in the logical chain*

Change in **political** relations between transit states and its neighbors that can create interruptions of supplies through transit state

Technical component (adequate maintenance of transit system to provide technical stability and reliability of transit)

Legal (third country sovereign law), **regulatory** (adequacy of legal transit regime to fulfillment of supply obligations between parties to LTGEC from third countries), and **contractual** component to exclude appearance of “contractual mismatch” problem

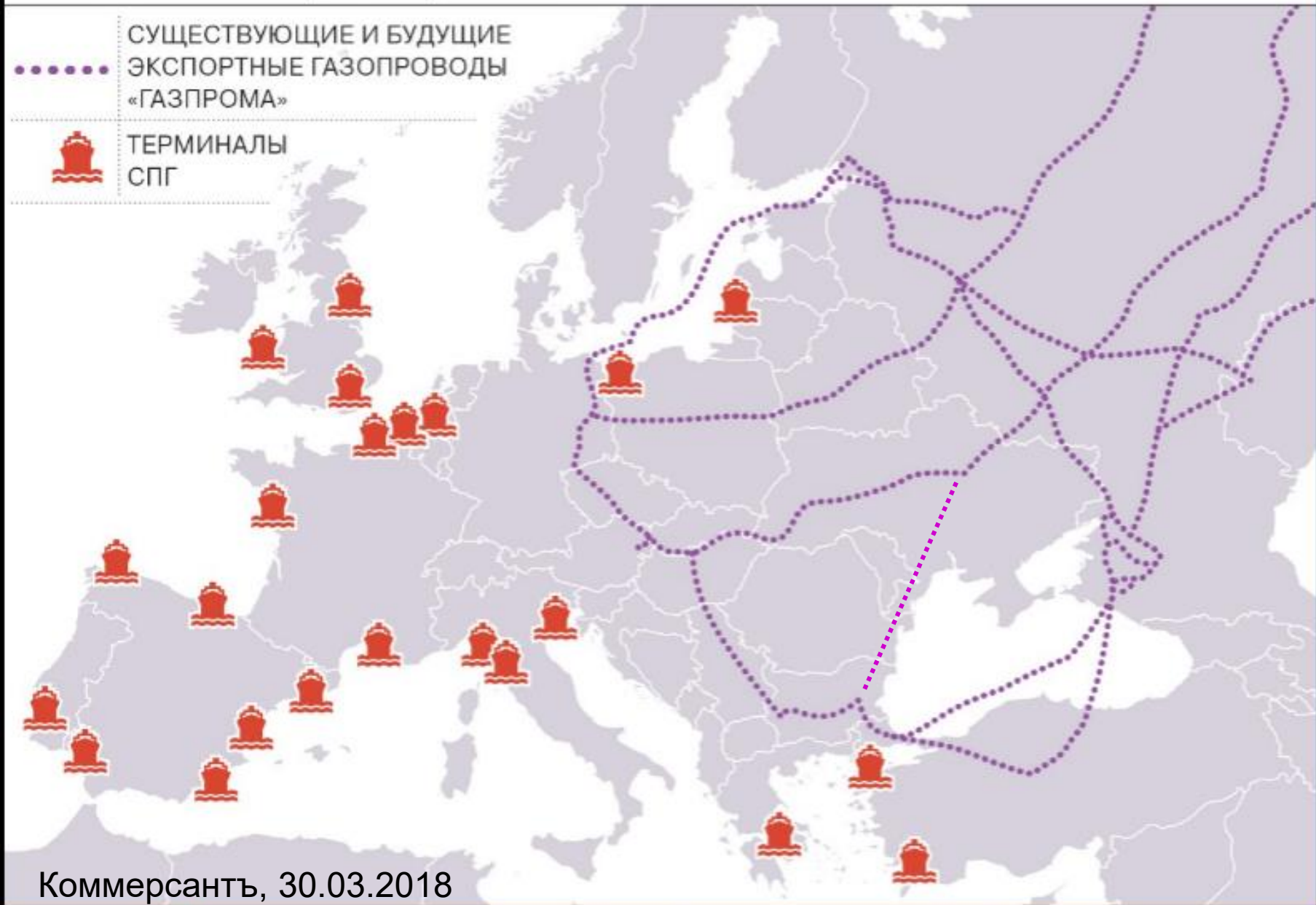
This author’s vision of the nature and three major components of transit risk in the cross-border gas value chain

Russia-EU common interest & mechanisms for minimizing transit risks

- Prior to dissolution of COMECON/USSR:
 - Delivery points at COMECON-EU border, de facto no transit via COMECON, producer/exporter had full operational control on gas value chain from wellhead to delivery point
- After dissolution of COMECON/USSR:
 - New sovereign independent states between producer/exporter (Russia) and EU => producer has lost control on transit part of gas value chain => transit risks
 - To minimize transit risks for importer & exporter = to diversify:
 - For importer: multiple sources of supply, **routes** (+ suppliers)
 - For exporter: multiple markets, **routes** (+ importers)
 - => diversification of routes = common interest for producer/exporter & importer => to exclude transit totally or alternative pipelines (bypasses)

ЭКСПОРТНОЕ КОЛЬЦО «ГАЗПРОМА» И ТЕРМИНАЛЫ СПГ В ЕВРОПЕ

ИСТОЧНИК: «ГАЗПРОМ», ENTSOG, GNIIGNL.



Коммерсантъ, 30.03.2018

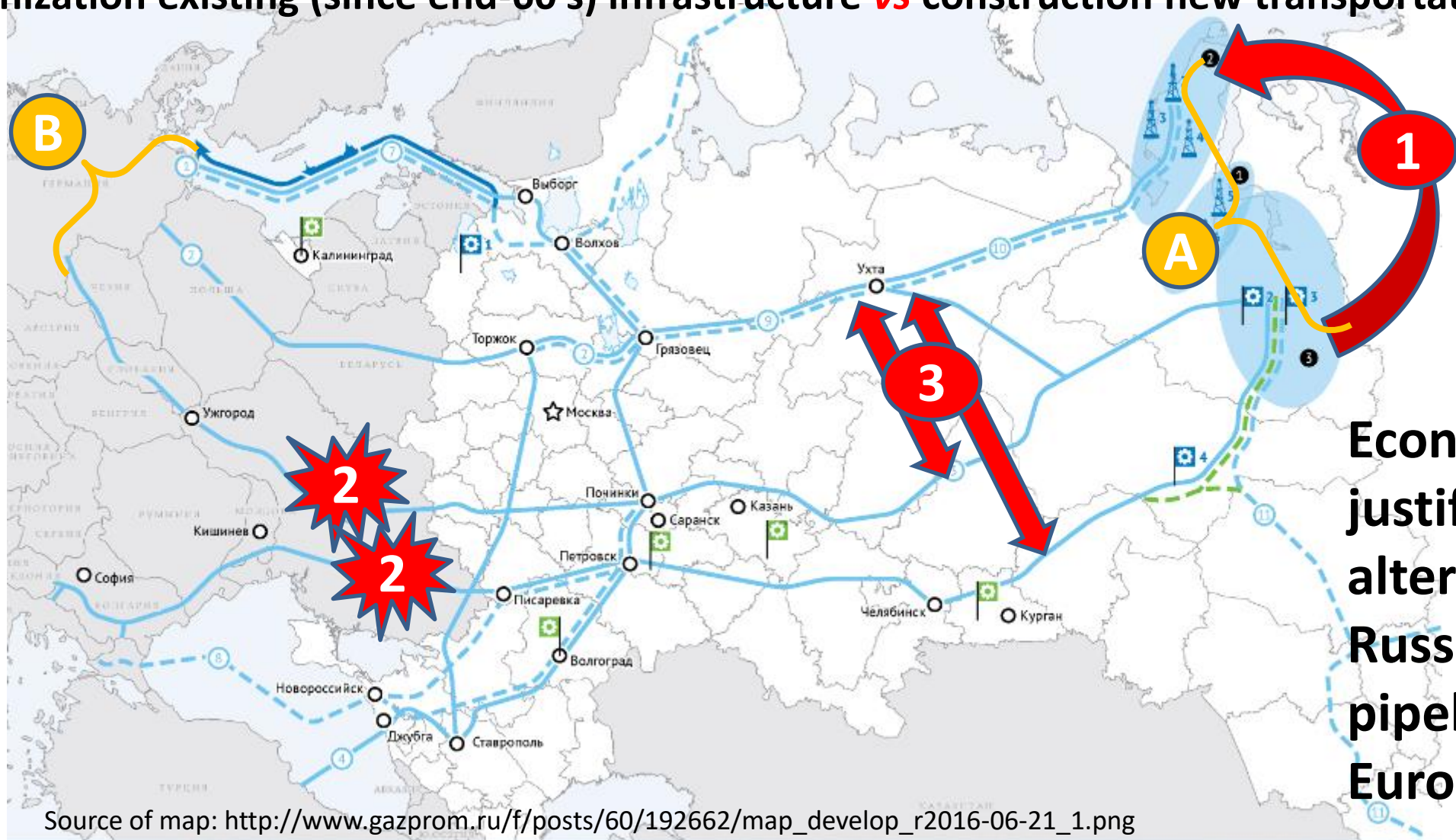
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Moscow, Metropol,
20.09.2018

Russia's existing/new supplies to Europe (to the unbundled EU gas market):

(1) resource base moves from Nadym-Pur-Taz to Yamal,

(2) Ukrainian transit risks & costs increases, =>

(3) modernization existing (since end-60's) infrastructure **vs** construction new transportation route

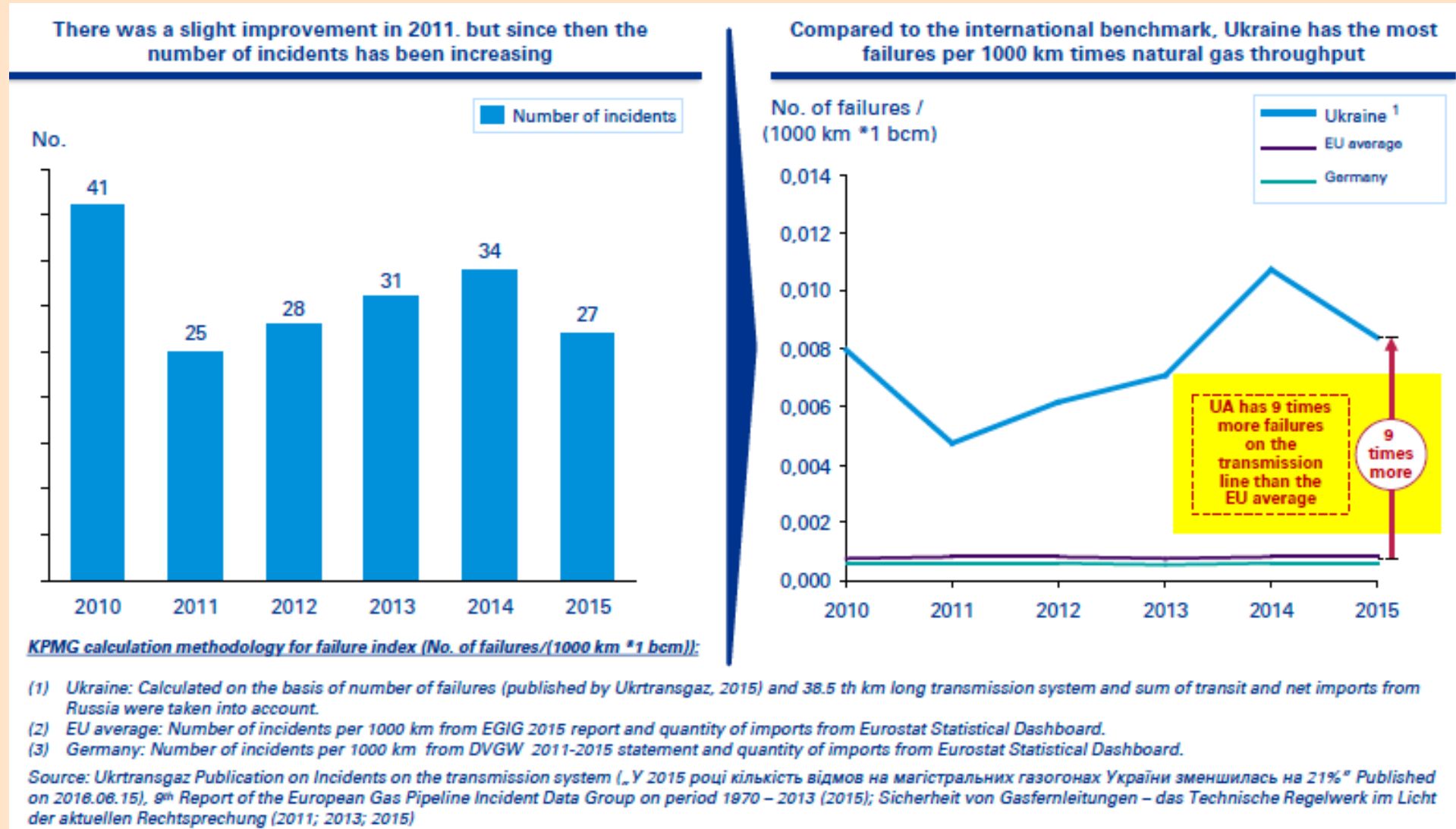


Economic justification of alternative Russian gas pipelines to Europe

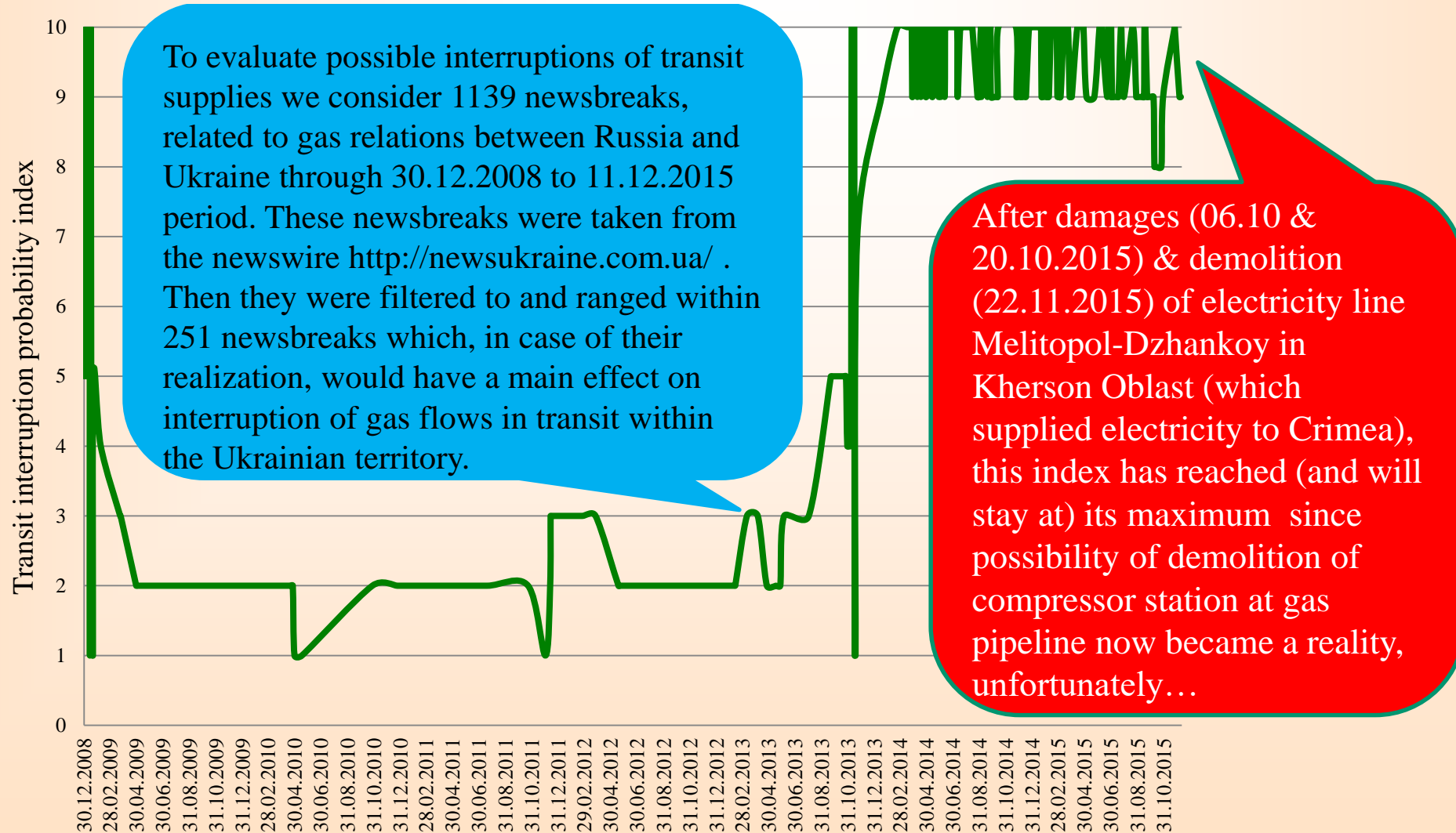
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Source of map: http://www.gazprom.ru/f/posts/60/192662/map_develop_r2016-06-21_1.png

Technical conditions of Ukrainian GTS (acc. to KPMG)



Ukraine: "transit interruption probability" index (2009–2015)



Calculated by M.Larionova, Russian Gubkin State Oil & Gas University, Chair "International Oil & Gas Business", Master's programme 2013-2015, on methodology, jointly developed with A.Konoplyanik, based on principles of credit ratings evaluation by major international credit agencies

A.Konoplyanik, Moscow, Metropol, 20.09.2018

Comparison of length & some other parameters for different gas routes from Yamal to Germany/EU

	Yamal-Greifswald	NPTR-UA-Waidhaus
Pressure, bars	120/90	75/55
Distance between CS, km	240	120
Inner coating	Yes	No
Efficiency GCU	Twice high	18-25%
Gas-compressor units capacity, MWt	32, 25	12, 16 (new/UA)

Compiled from public sources, incl.: С.Правосудов. Почему Газпром не доверяет украинской трубопроводной системе. // «НГ-Энергия», 16.01.2018



Reminder: Since 2nd EU Gas Package supplies to the individual EU MS = supplies to the EU !

	Yamal – Germany routes	km
1	Yamal – Greifswald:	4166
	Yamal – Ust-Luga (within RF)	2977
	Ust-Luga – Greifswald	1189
2	Yamal – NPTR – UA - Waidhaus:	6051
	Yamal – Sudja (within RF)	3987
	Sudja – Waidhaus	2064

Length of the route via Nord Stream is 1885 km shorter than through UA GTS, incl. that within Russian territory the distance is shorter by 1010 km. Route via Ukraine is 45% longer than via Nord Stream.

A.Konoplyanik, Moscow, Metropol, 20.09.2018

Thank you for your attention!

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