

**What structural, political and economic conditions does Russia consider necessary to secure Europe's supply with Russian gas in the future?
The Russian view on the January 2009 crisis.**

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**Presentation at the Alpbach 2009 Economic Symposium –
Working Group: “The future of security of supply –
how does the ‘gas crisis’ affect European energy policy?”,
organised by E-Control, the Federation of Austrian industries
and OMV Gas & Power,
Wednesday, 2 September 2009, Alpbach, Tyrol, Austria**

The crucial question & three yet-to-be-proved assumptions for Europe

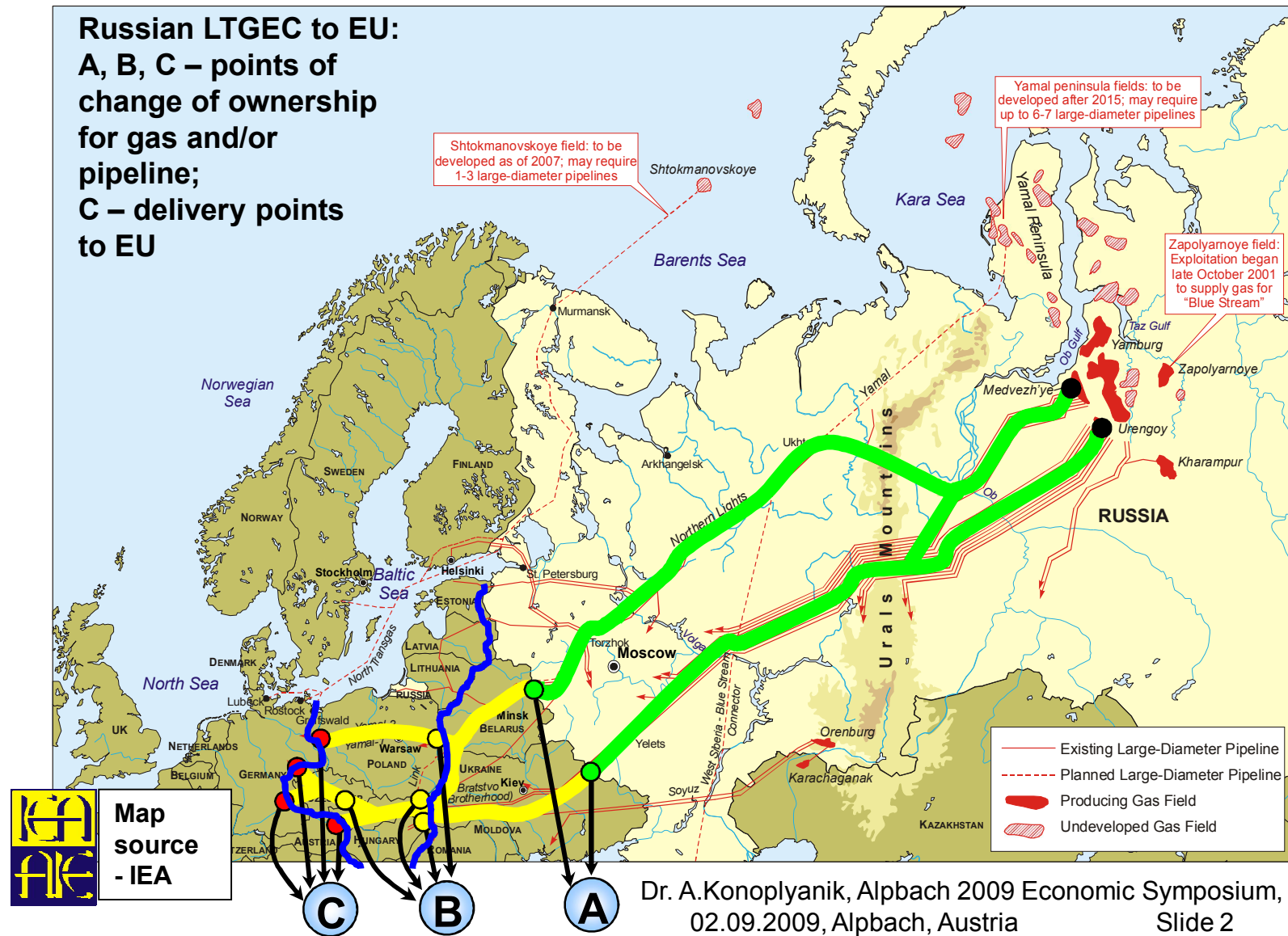
The crucial question:

- Which measures should be taken at EU and national levels to avoid a repetition of the January 2009 situation and to guarantee security of supply for Europe?

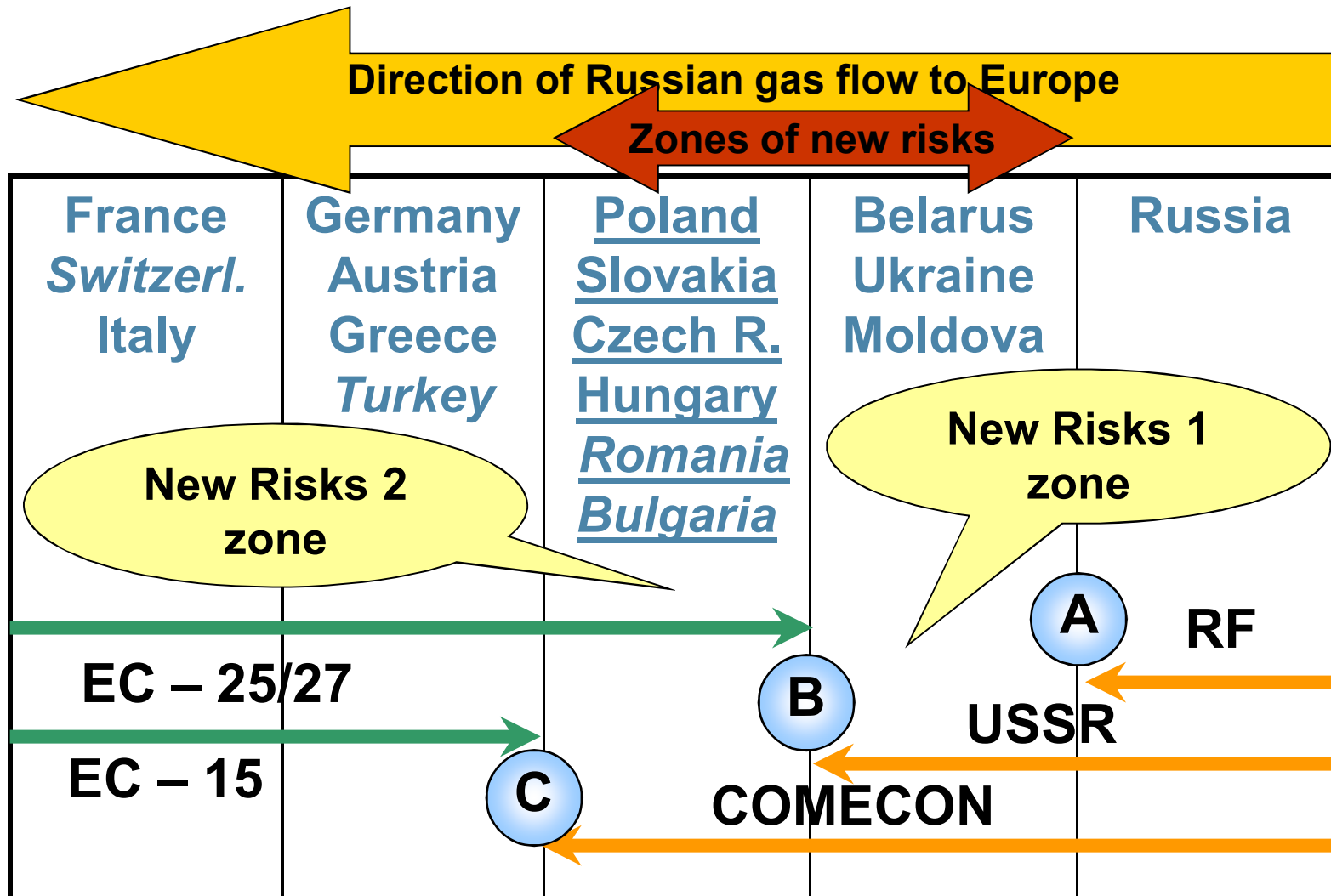
Three yet-to-be-proved assumptions/draft answers:

- **Well-functioning energy markets increase security of supply**
 - But: It is not always the case for external producers/exporters from other jurisdictions: market fluctuations at liberal end-market are short-term and good for traders & speculators, but they are de-stimulating for investors in long-term & capital intensive E&P & infrastructure projects located in other jurisdictions and export-oriented at liberal markets
- **Diversification and infrastructure investments are costly. How can we diversify nevertheless?**
 - But: Increasing stability of existing supplies from existing major suppliers can be less costly & time-consuming than alternative options for consumers, especially if such options do not provide strong economic stimuli for reserve-owners/producers/exporters
- **Should Europe aim at being self-sufficient in energy supply?**
 - But: Era of energy independence is over in global and further globalizing energy world => We need to aim at minimizing risks throughout all segments of cross-border energy value chains within interdependent energy world

Russian Gas Export to Europe: on-border Sales and Transit Legs

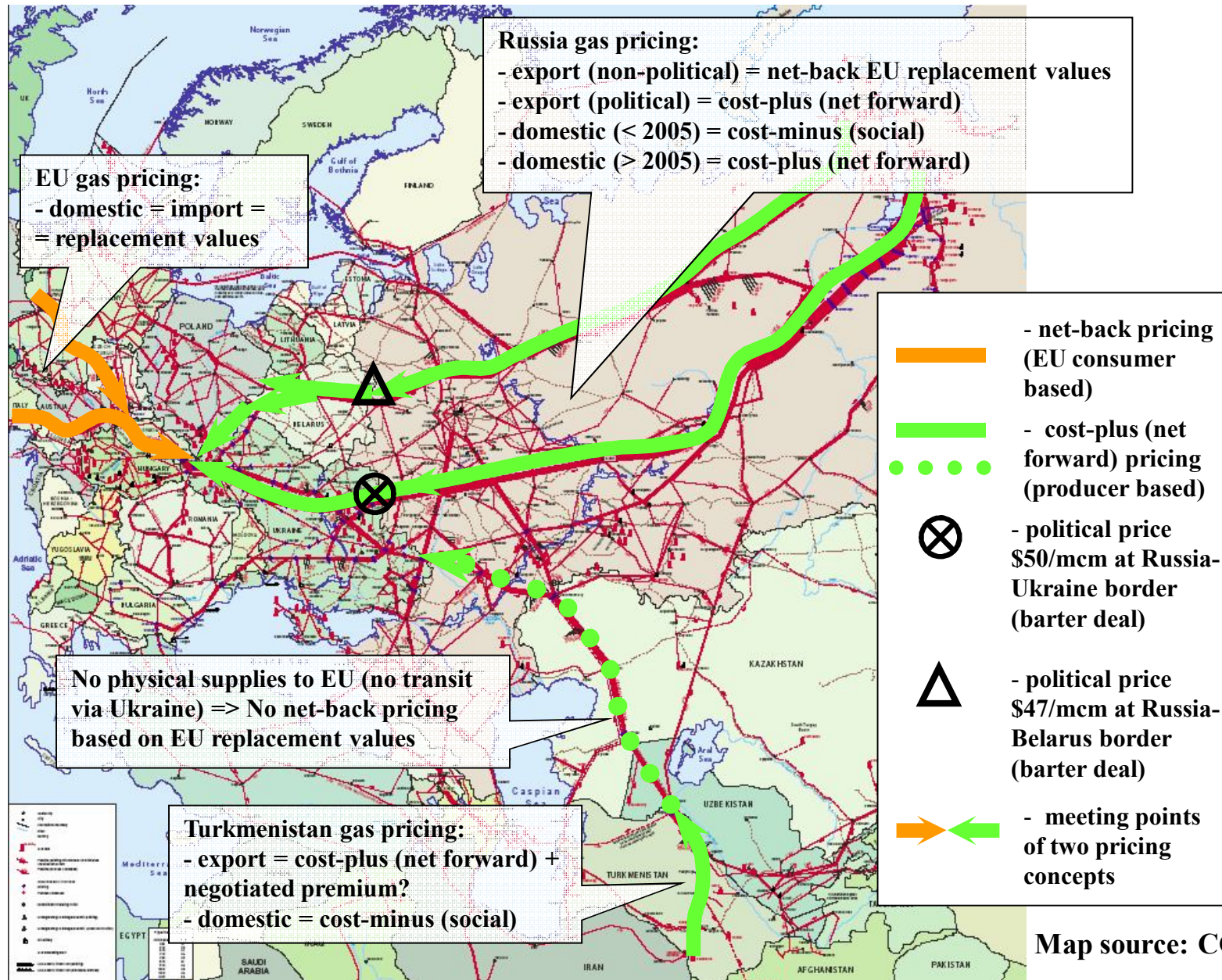


Russian Gas Supplies to Europe: Zones of New Risks for Existing Supplies Within Russia's Area of Responsibility



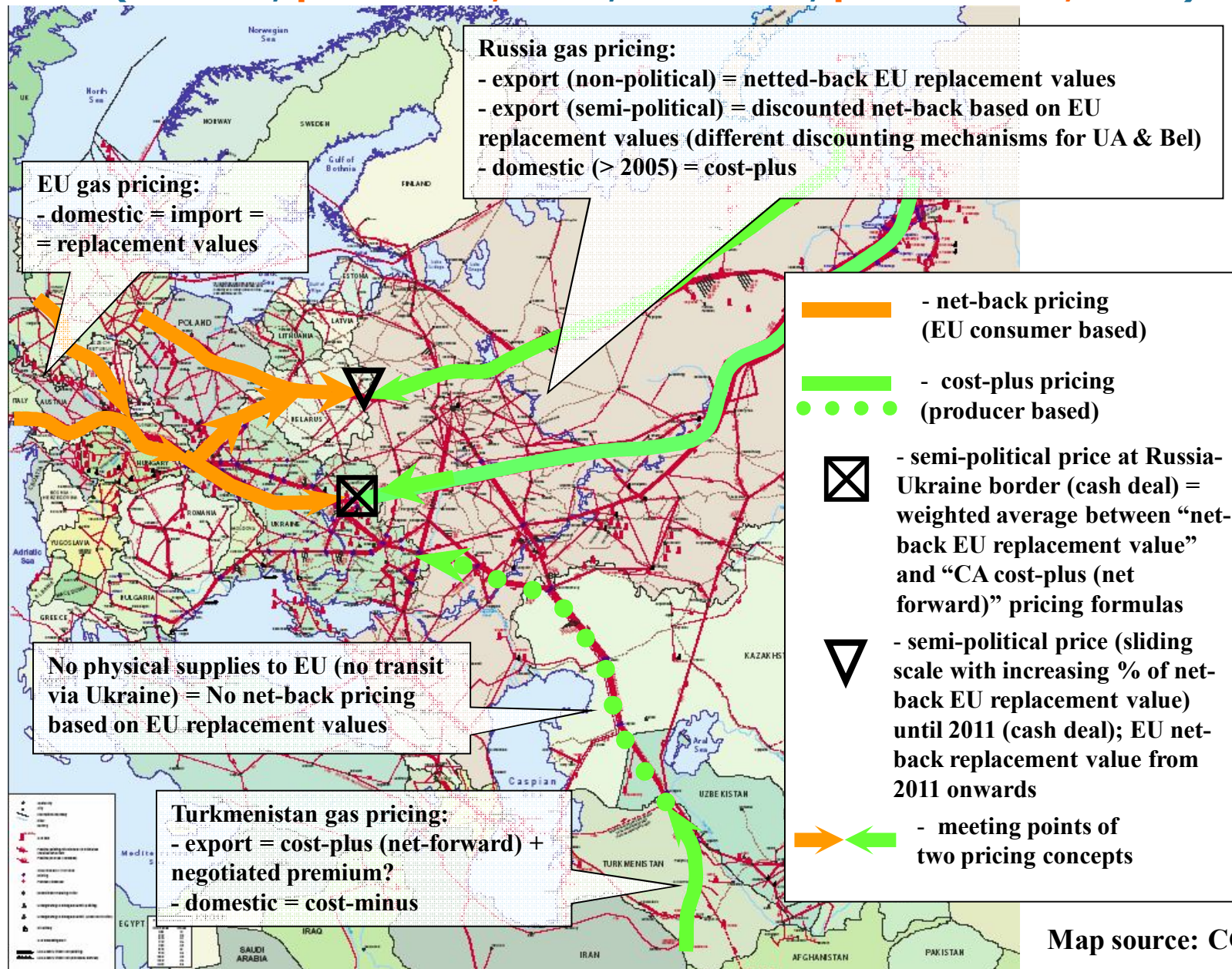
Italic – non-EU countries; New EU accession states: underlined – since 01.05.2004, underlined + italic – since 1.01.2007; A, B, C – points of change of ownership for Russian gas and/or pipeline on its way to Europe

Russian Gas to Europe prior to January 4, 2006: "Political" and "Non-Political" Pricing Zones



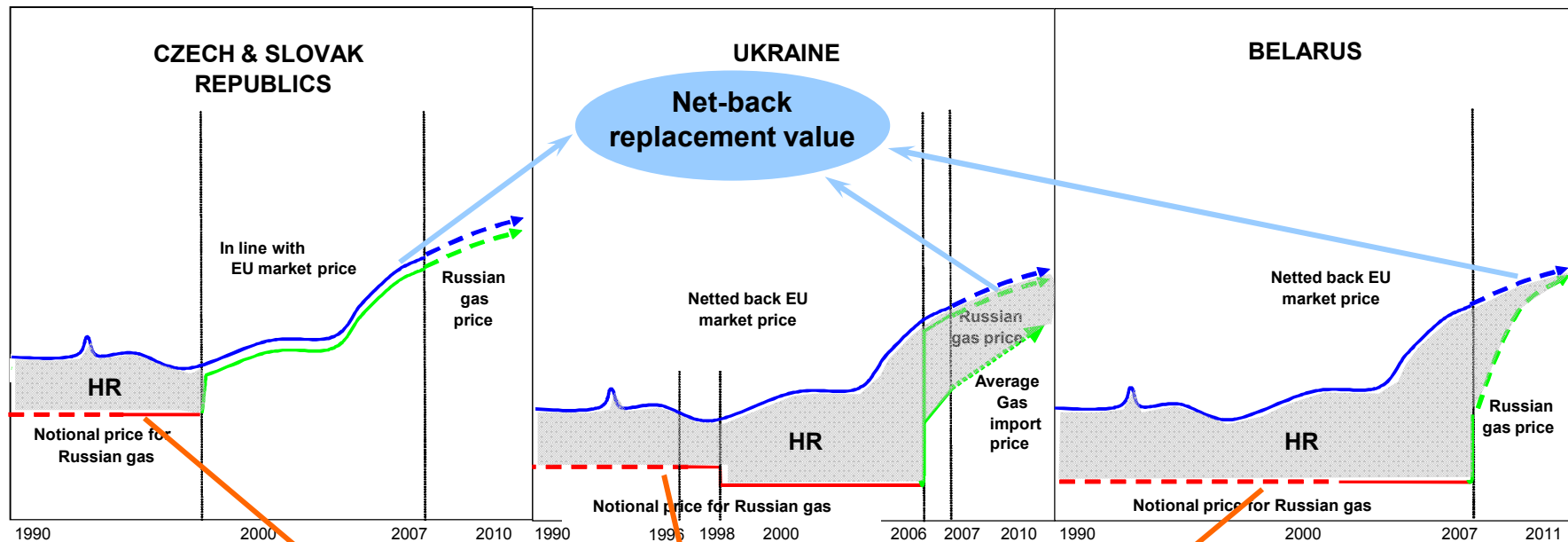
Map source: CGES

Russian Gas to Europe: "Political" and "Non-Political" Pricing Zones 2006-2009 (Ukraine, post-Jan.4, 2006, & Belarus, post-Dec.30, 2006)



Map source: CGES

Russian Gas Prices to the EU and Countries along the Pipe



- Remarks:**
- 1- The figures are entirely for illustration purposes and, therefore, may not fully reflect the actual price levels and movements
 - 2- The illustration for "Netted back EU market prices" are based on the IEA's World Energy Outlook, 2006
 - 3- Estimates for future gas price movements beyond 2007 are entirely illustrative.
 - 4- Recent actual price figures for Ukraine and Belarus, based on information from public sources, are as follows:
 For Ukraine - Russian gas price: 230 \$/mcm (2006) ; Average gas price (for a mixture of Russian / Central Asian gas): 65 and 135 \$/mcm (2006 and 2007, respectively)
 For Belarus - Russian gas price: 100 \$/mcm (2007) It will reach market price level by 2011 in agreed upon steps (67, 80, 90 and 100% from 2008 to 2011)
 - 5- Notinal prices for Russian gas were used to determine volumes of gas as compensation for transit services.
 For Ukraine: 80 \$/mcm until 1998; 50 \$/mcm from 1998 to 2006
 For Belarus: 47 \$/mcm most recently until 2007

■ Hotelling Rent

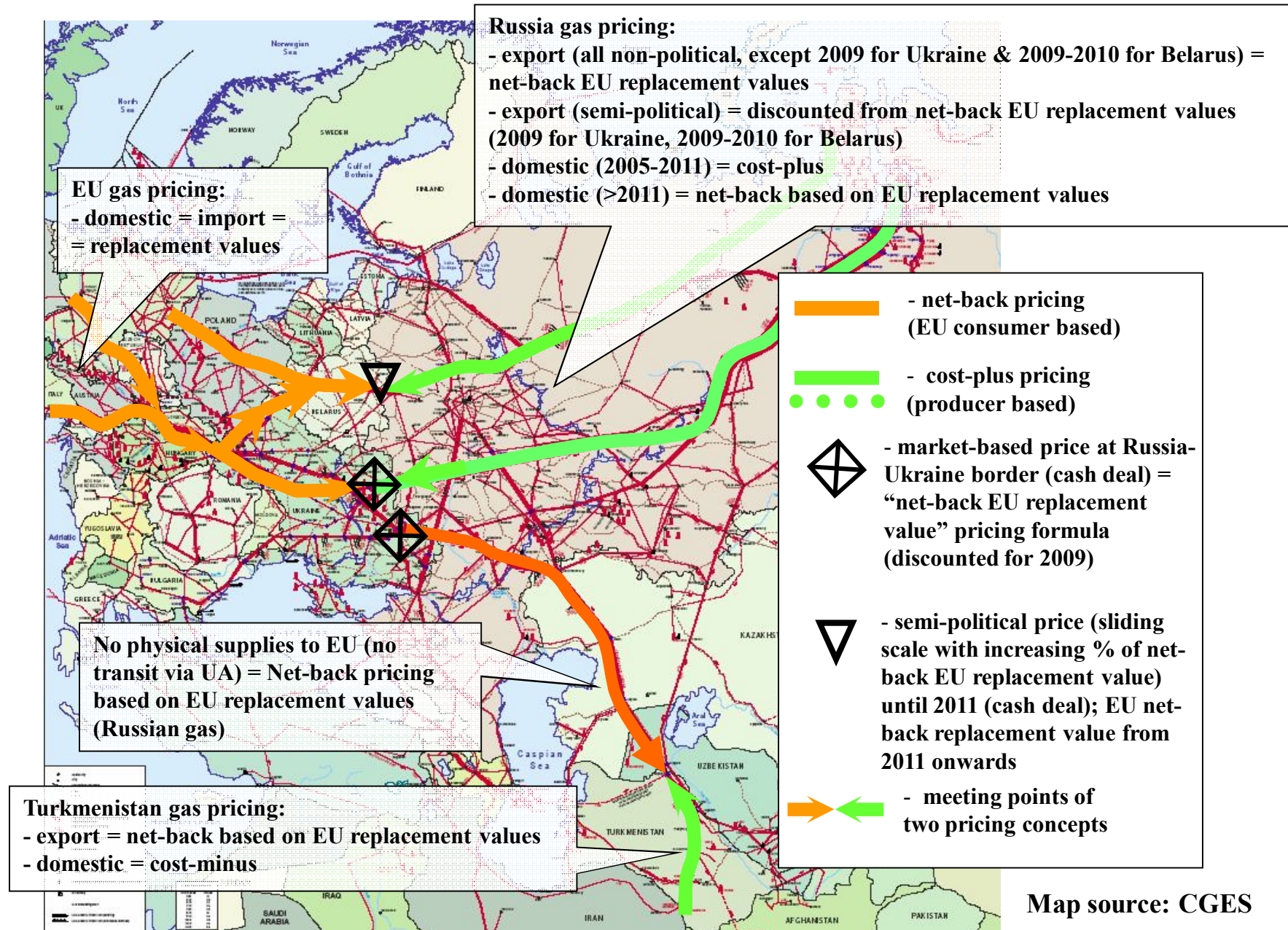
**Cost-plus?
(Net forward)**

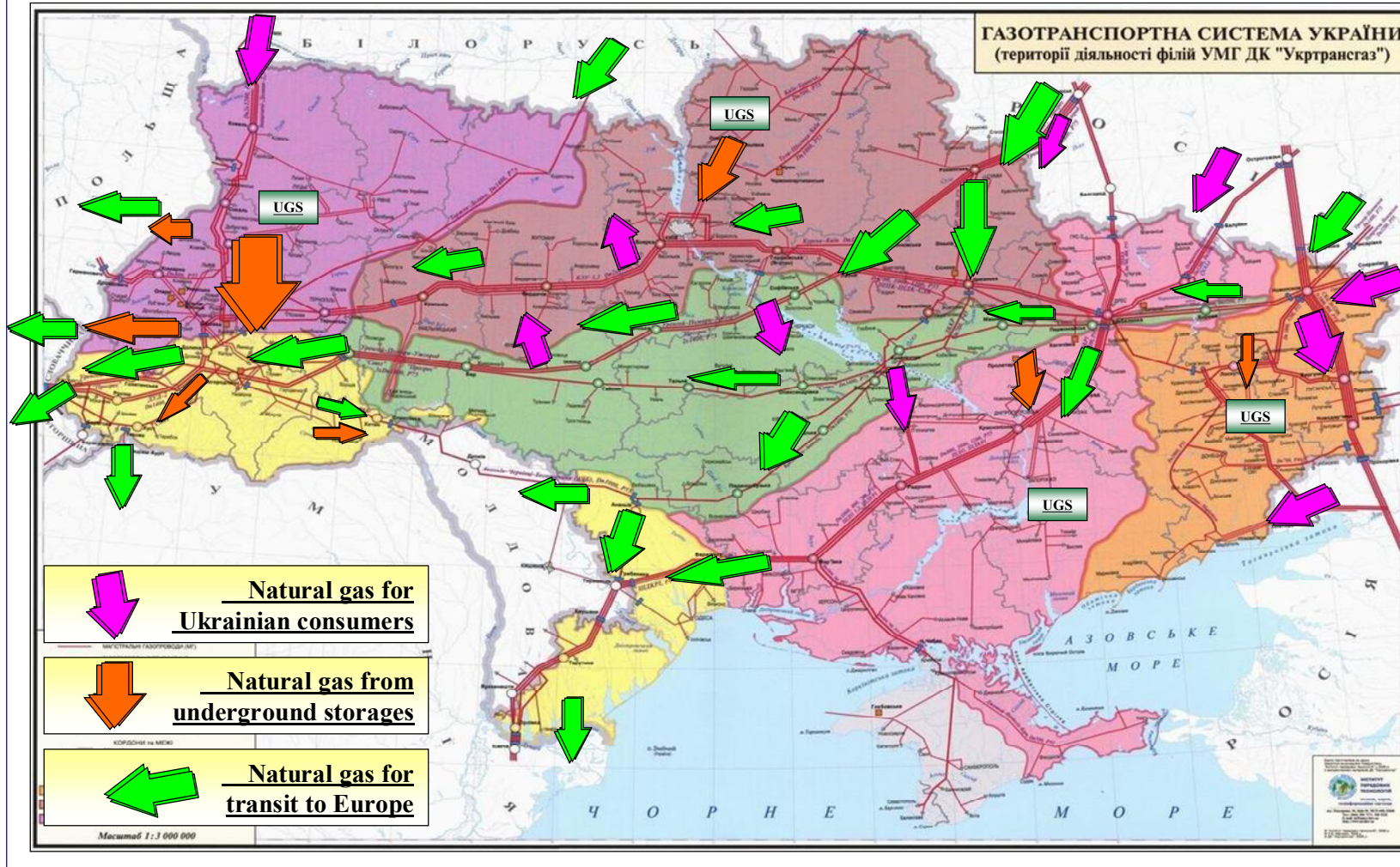
Based on: "Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas". Energy Charter Secretariat, 2007.

Russia & Former COMECON/USSR states: Different Sensitivity of Transition to Market-based Gas Pricing/Prices

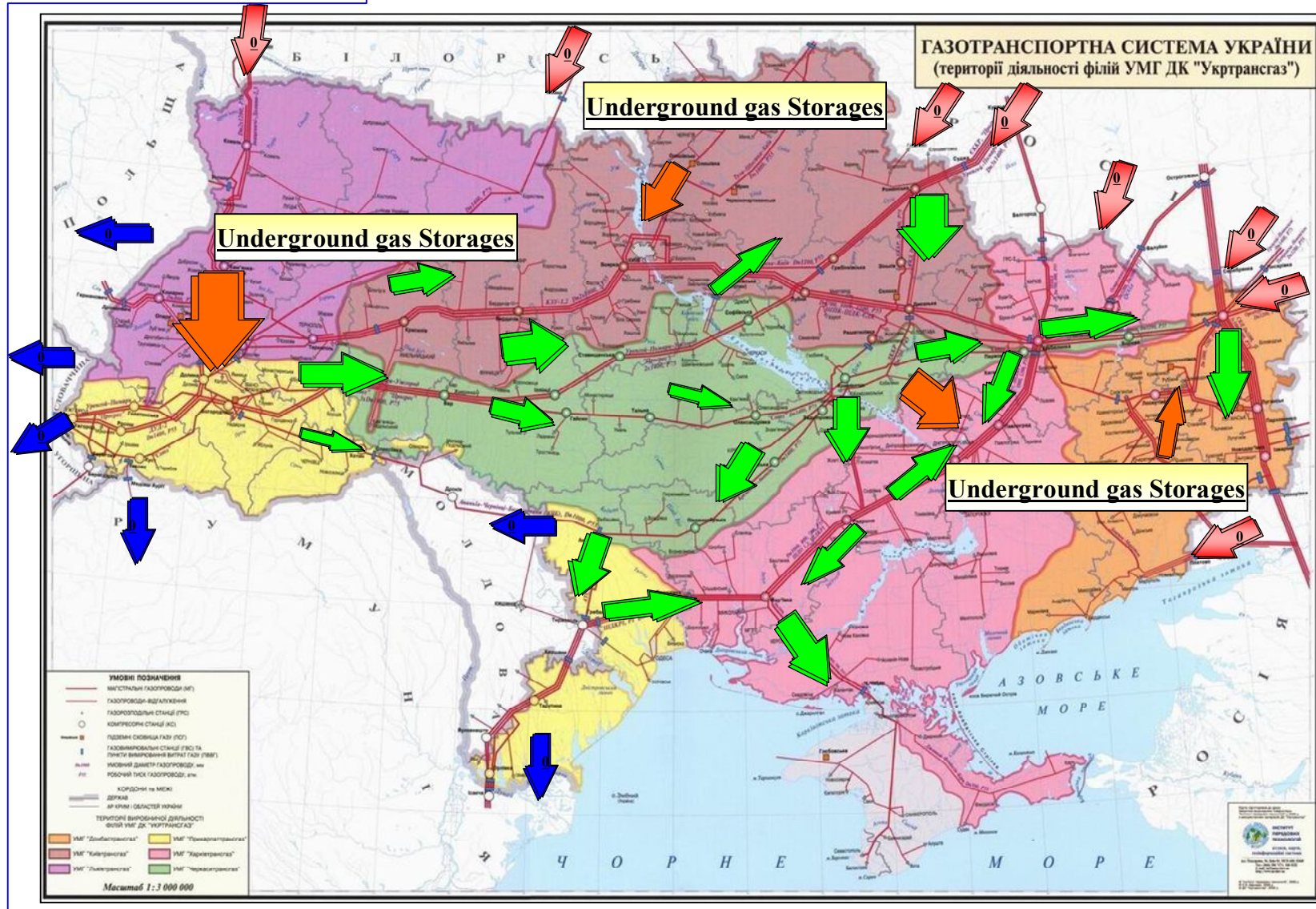
	Czech & Slovak Republics	Ukraine	Belarus
Internal motivation vs. external political obligations to move to market pricing / prices	(No?) / Yes (accession to EU)	No / No	No / No
Price gap (market vs. political price): value (USD/mcm) & trend prior to transition	10- (1998); diminishing	15 (1998), 160 (2005); growing	25 (1998), 170+ (2006); growing
Relative economic value / political sensitivity	Low	High	Highest (Union state)

Russian Gas Export to Europe: Pricing Zones since Jan 1, 2009





Source: UkrTransGas presentation at the Energy Charter meeting of the Trade & Transit Group, Brussels, 12 February 2009



Source: UkrTransGas presentation at the Energy Charter meeting of the Trade & Transit Group, Brussels, 12 February 2009

Naftogaz & Naftogaz Gas Transit

