

# ***THE BULGARIAN NATURAL GAS SECTOR AND NEW GAS INFRASTRUCTURE***

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## BEGINNING OF NATURAL GAS ACTIVITIES IN BULGARIA



- 1963 - Start up of natural gas use in Bulgaria
- 1974 - Start up of gas transmission and supply in Bulgaria
- **1987 - Start up of gas transit to neighboring countries**

# MAIN DRIVERS IN BULGARIAN GAS SECTOR

## Bulgarian Gas Transmission Network (Includes National and Transit Networks)

- High pressure gas pipelines > 2 700 km
- Compressor stations – 9 (installed capacity – 264 MW)
- National Gas Transmission Network with length of >1 700 km (3 compressor stations with total capacity 49 MW)
- Capacity of the national gas transportation network ~7 bcm/year
- **Transit gas network with length 945 km (6 compressor stations with total capacity 214 MW)**
- **Contracted capacity of the transit gas pipelines – 17.8 bcm/year**, however the overall capacity is slightly bigger.

## Natural Gas Volumes:

- **Indigenous production: 2008 - 0.22 bcm (6.5%) 2009 - 0.02 bcm**
- **Consumption: 2008 - 3.4 bcm; 2009 – 2.5 bcm**
- **Gas import dependence: 2008 - 93.5 % 2009 – 99 %**
- **Transit: 2008 - 16.7 bcm; 2009 – 12.3 bcm**

## Energy Balance Share

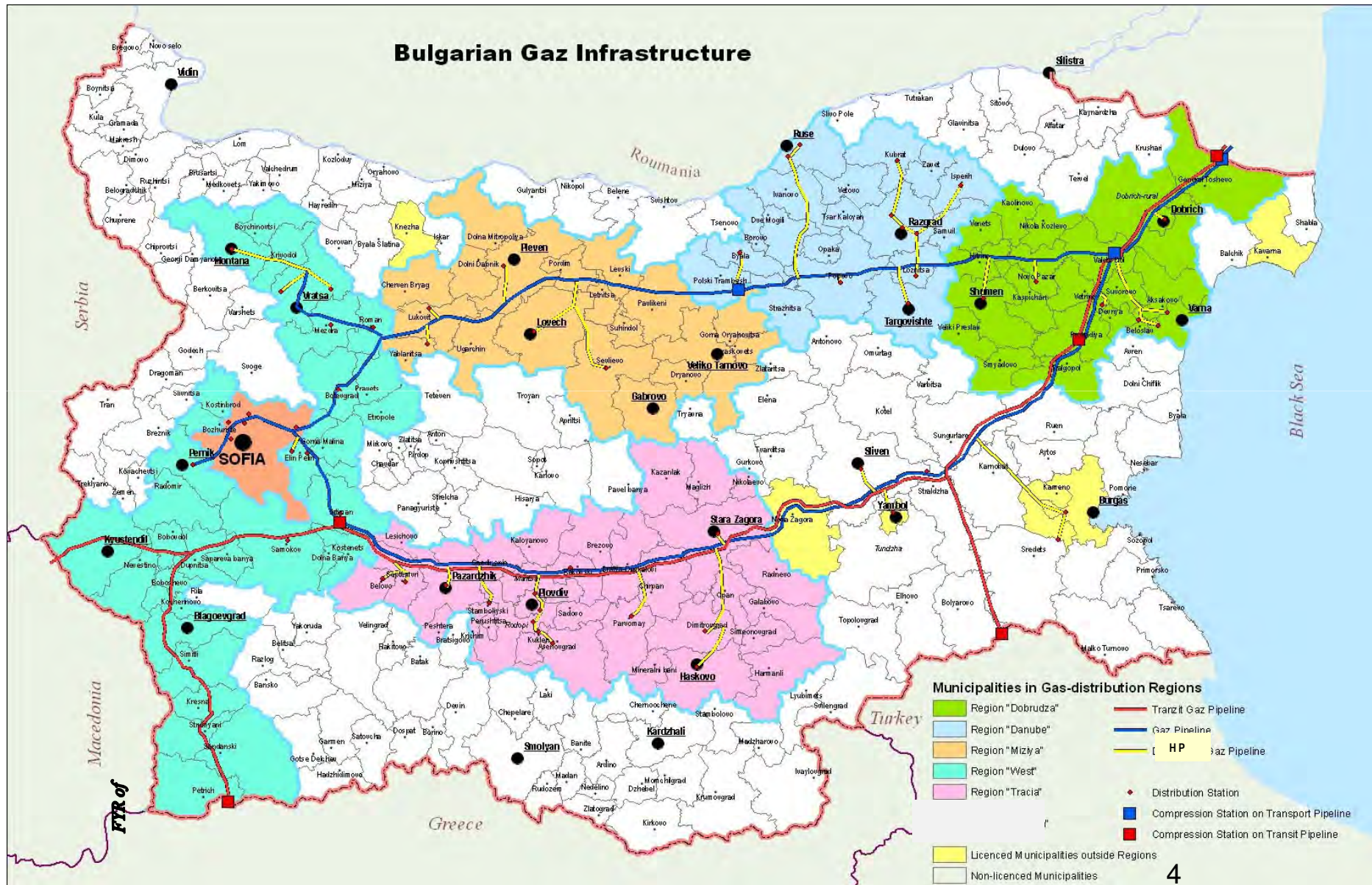
- Gas in the energy mix: 11% (2007)
- Gas in the mix of electricity production: 4 % (2007)
- Gas in the mix of heat production: 49.9 % (2007)
- Gas in the mix of electricity and heat production: 10.5% (2007)

## UGS “Chiren” (incl. compressor station with capacity 9 MW):

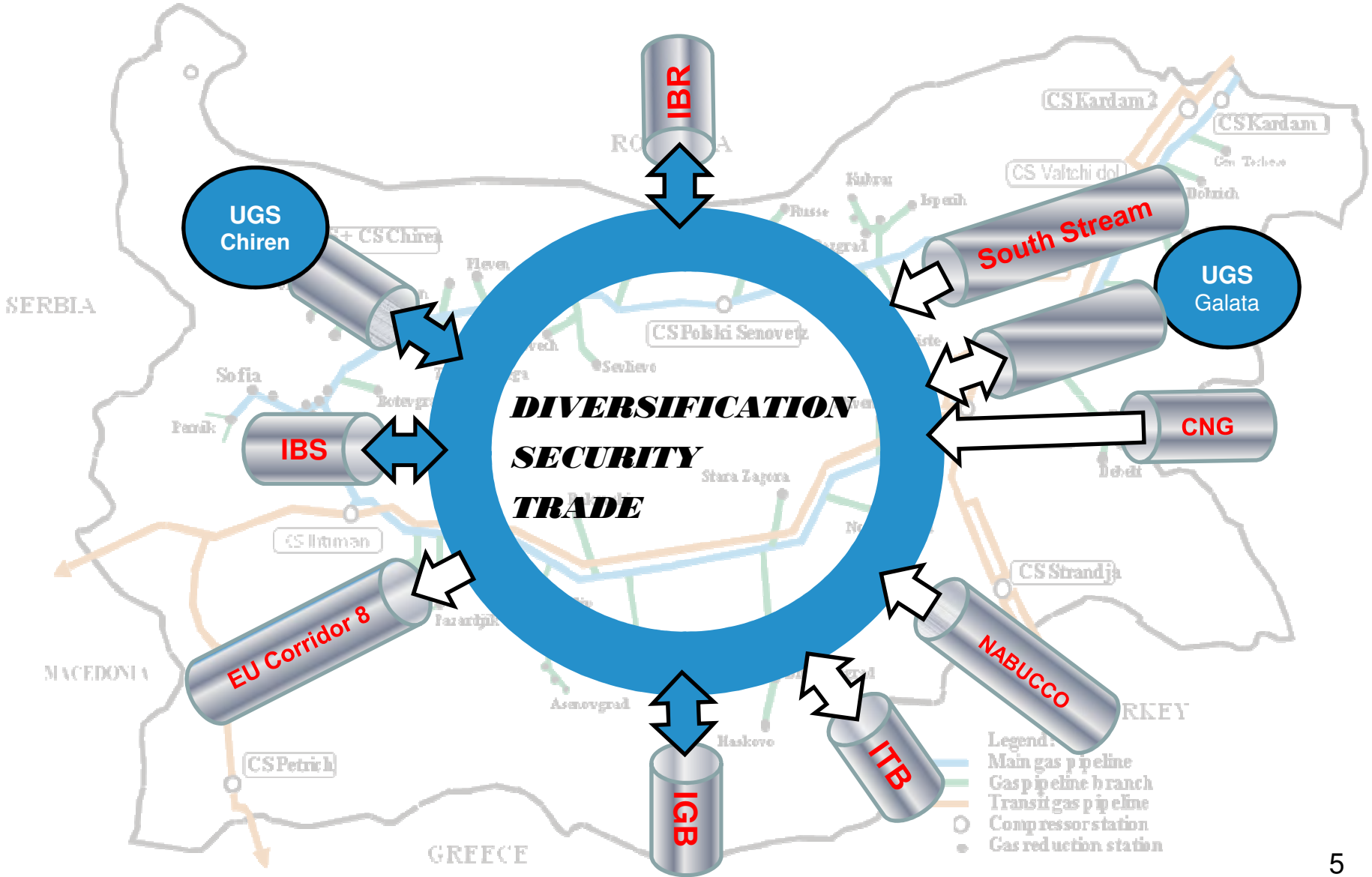
- Working gas capacity – **0.65 bcm** (planned to be increased to **0.85 bcm**)
- Max. daily withdrawal capacity – **4.3 mcm** (planned to be increased to **10 mcm/day**).

# BULGARIAN GAS TRANSMISSION NETWORK

## Gas Distribution Regions (Colored)

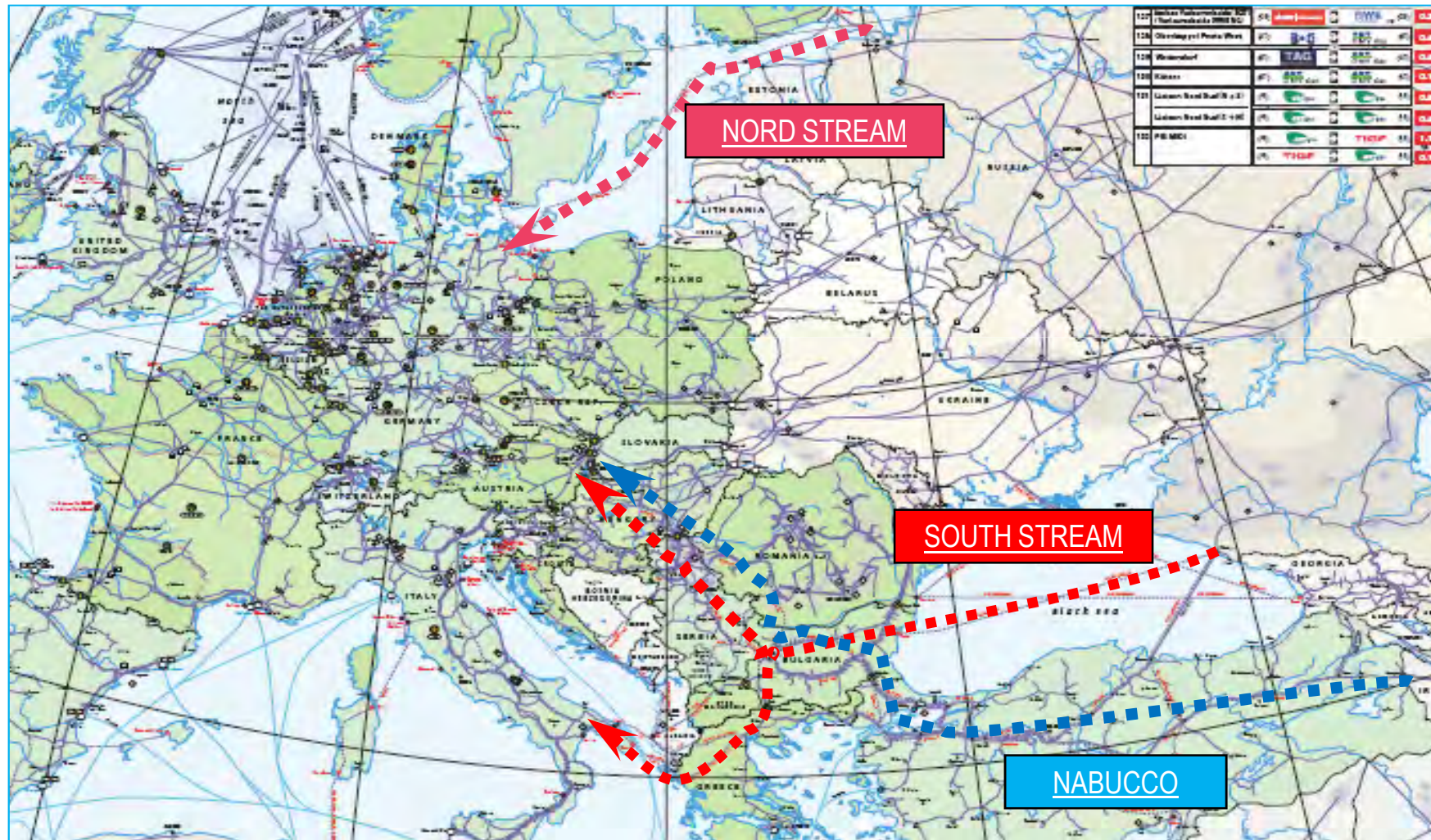


# GAS INFRASTRUCTURE DEVELOPMENT STRATEGY



# 3 MAJOR NEW PIPELINE PROJECTS IN EUROPE

**SEE and Black Sea Regions – Key Regions for the energy security of the EU**



## GAS PROJECTS FOR DIVERSIFICATION OF SOURCES & ROUTES

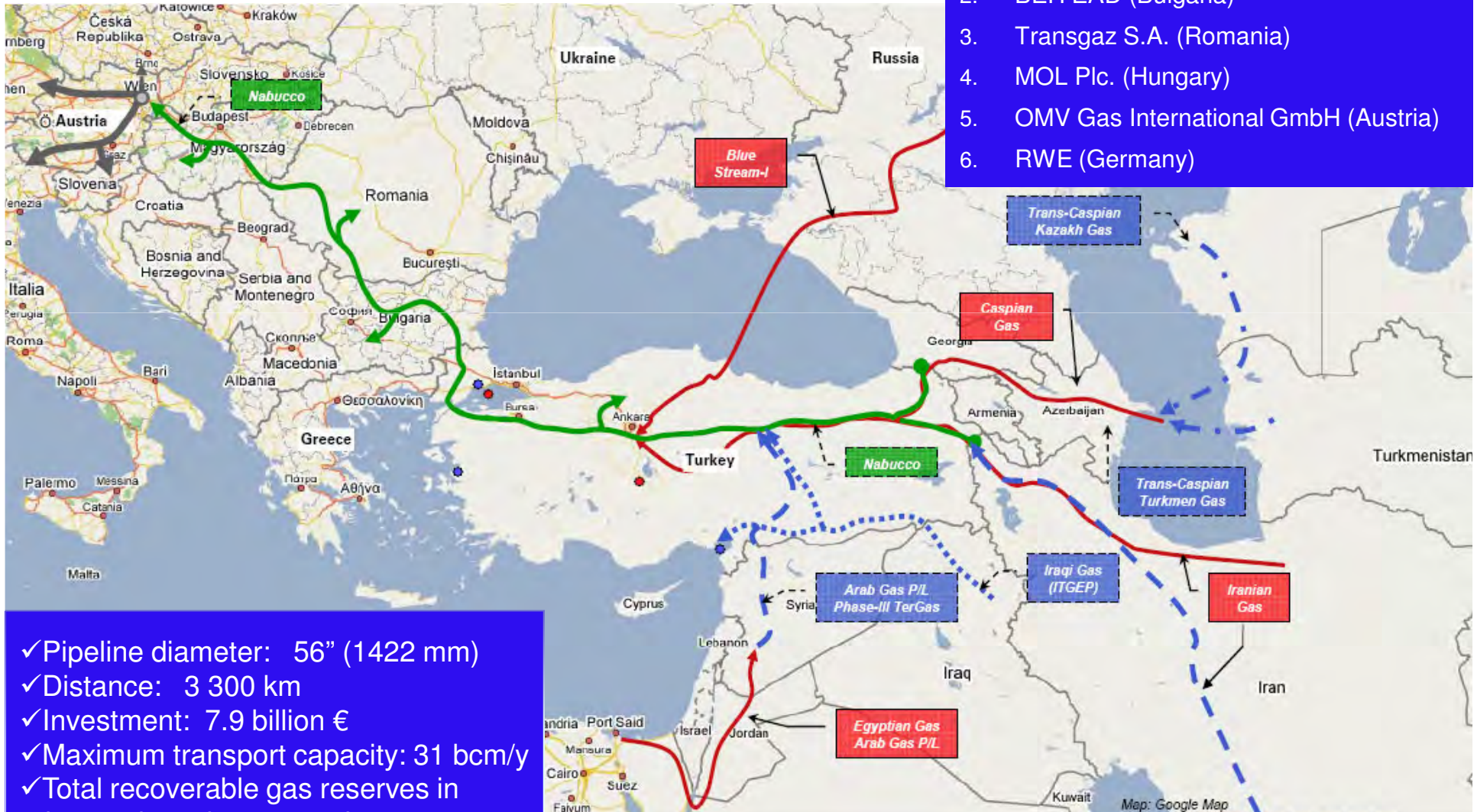
1. NABUCCO
2. South Stream
3. Interconnection Greece - Bulgaria IGB (Komotini GR–  
Dimitrovgrad BG - Stara Zagora BG);
4. Interconnection Turkey - Bulgaria ITB (Malkoclar TR -  
Lozenetz BG);
5. Interconnection Bulgaria - Romania IBR (Russe-Giurgiu);
6. Interconnection Bulgaria - Serbia IBS (Sofia – Nish);
7. Regional SEE LNG re-gasification terminal (Greek North  
Aegean Coast);
8. 8<sup>th</sup> European Corridor Gas Pipeline (Bulgaria - FYR of  
Macedonia – Albania – Italy with possible branches to  
Kosovo and Montenegro)

# NABUCCO

## Gas Project of the Highest Priority of the EU

### PARTNERS:

1. Botas (Turkey)
2. BEH EAD (Bulgaria)
3. Transgaz S.A. (Romania)
4. MOL Plc. (Hungary)
5. OMV Gas International GmbH (Austria)
6. RWE (Germany)

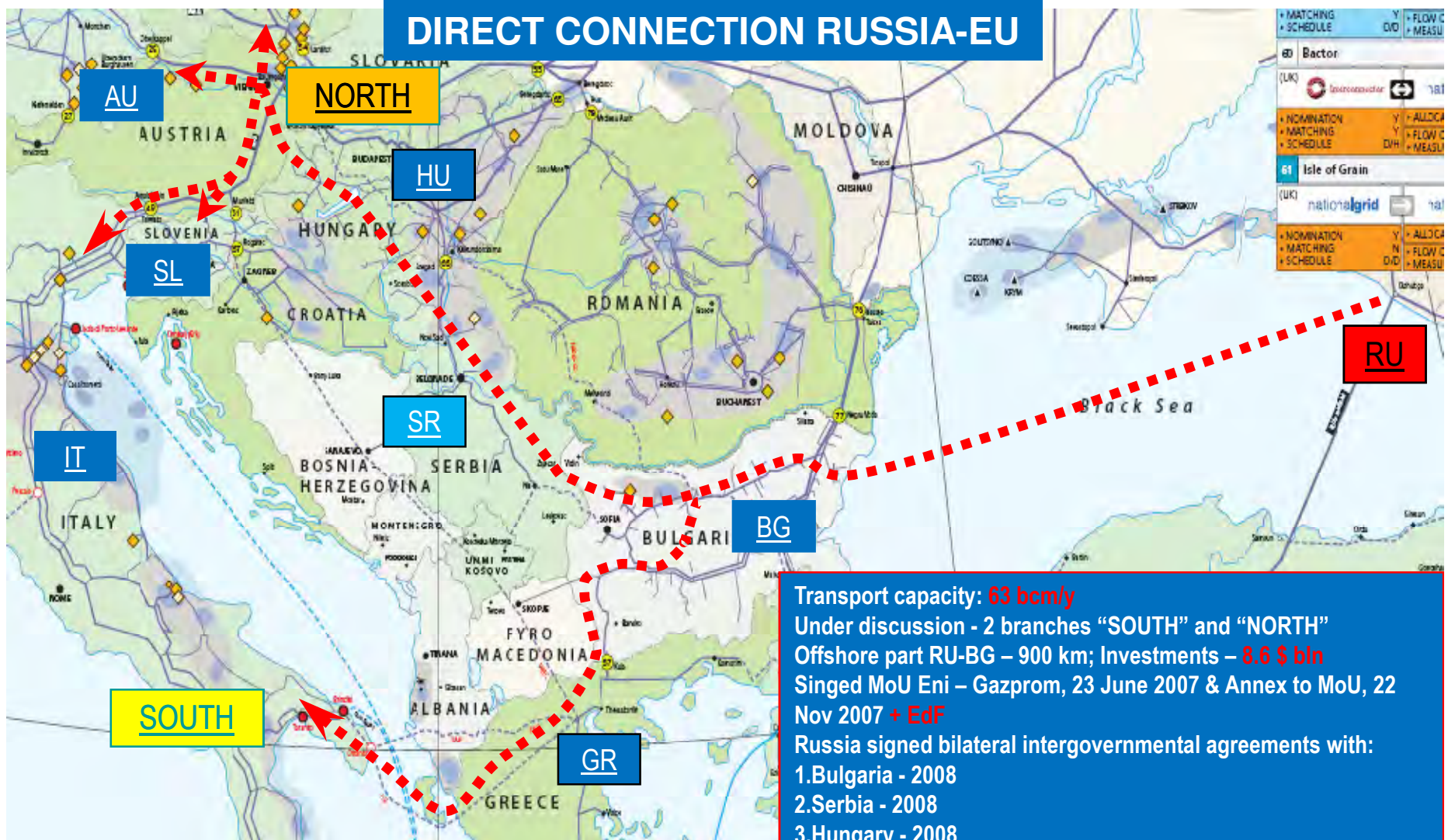


- ✓ Pipeline diameter: 56" (1422 mm)
- ✓ Distance: 3 300 km
- ✓ Investment: 7.9 billion €
- ✓ Maximum transport capacity: 31 bcm/y
- ✓ Total recoverable gas reserves in relevant deposits: 83 140 bcm



# “SOUTH STREAM” PROJECT

## Possible Routes of the Branches



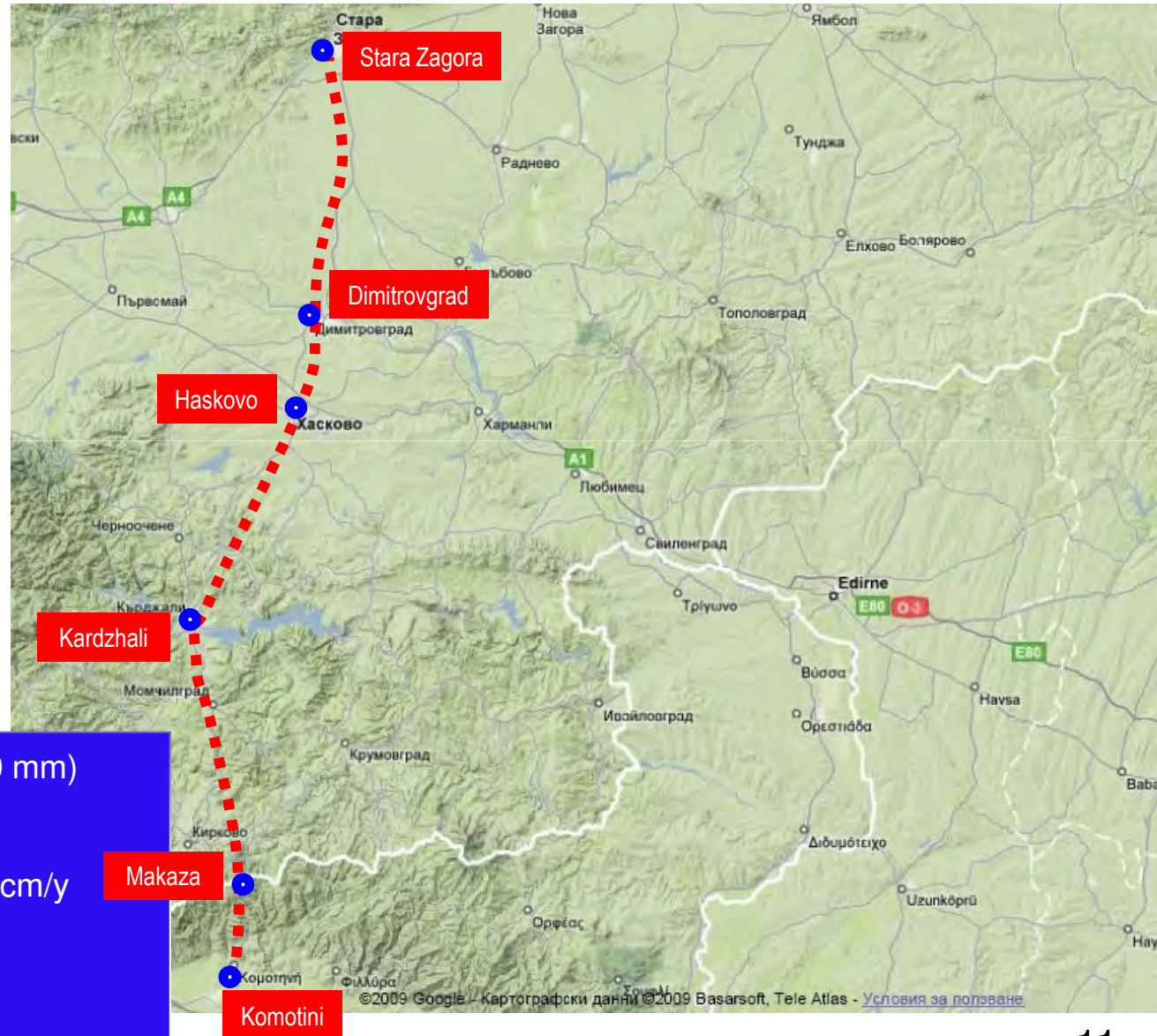
Transport capacity: **63 bcm/y**  
 Under discussion - 2 branches “SOUTH” and “NORTH”  
 Offshore part RU-BG – 900 km; Investments – **8.6 \$ bln**  
 Signed MoU Eni – Gazprom, 23 June 2007 & Annex to MoU, 22 Nov 2007 + **EdF**  
 Russia signed bilateral intergovernmental agreements with:

1. Bulgaria - 2008
2. Serbia - 2008
3. Hungary - 2008
4. Greece – 2008
5. Slovenia - end 2009
6. Croatia - 2010
7. Austria - 2010

- 1 INTERCONNECTION GREECE-BULGARIA (IGB)
- 2 INTERCONNECTION TURKEY-BULGARIA (ITB)
- 3 INTERCONNECTION BULGARIA-ROMANIA GAS (IBR)
- 4 CONSTRUCTION OF SEE REGIONAL LNG TERMINAL
- 5 8th EUROPEAN CORRIDOR GAS PIPELINE



# Interconnection Greece - Bulgaria IGB



- ✓ Pipeline diameter: 28" (700 mm)
- ✓ Distance: 170 km
- ✓ Initial capacity – 1.4 bcm/y
- ✓ Max. capacity (with CS): 6 bcm/y
- ✓ Working pressure: 75 bars
- ✓ Investments: 150 M €
- ✓ EU grant: 45 M €
- ✓ Commissioning: 2013

Thank you for your attention!

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