

**NEW SUPPLY PROJECTS – INTERCONNECTIONS  
INTEGRATED NATURAL GAS MARKET IN THE  
SOUTH EAST EUROPE**

**5<sup>th</sup> South East Europe Energy Dialogue**

**June 2-3, 2011, Thessaloniki, Greece**

**plinacro**

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OPERATOR PLINSKOGA TRANSPORTNOG SUSTAVA

**GAS TRANSMISSION SYSTEM OPERATOR**

**+**

**GAS STORAGE SYSTEM OPERATOR**

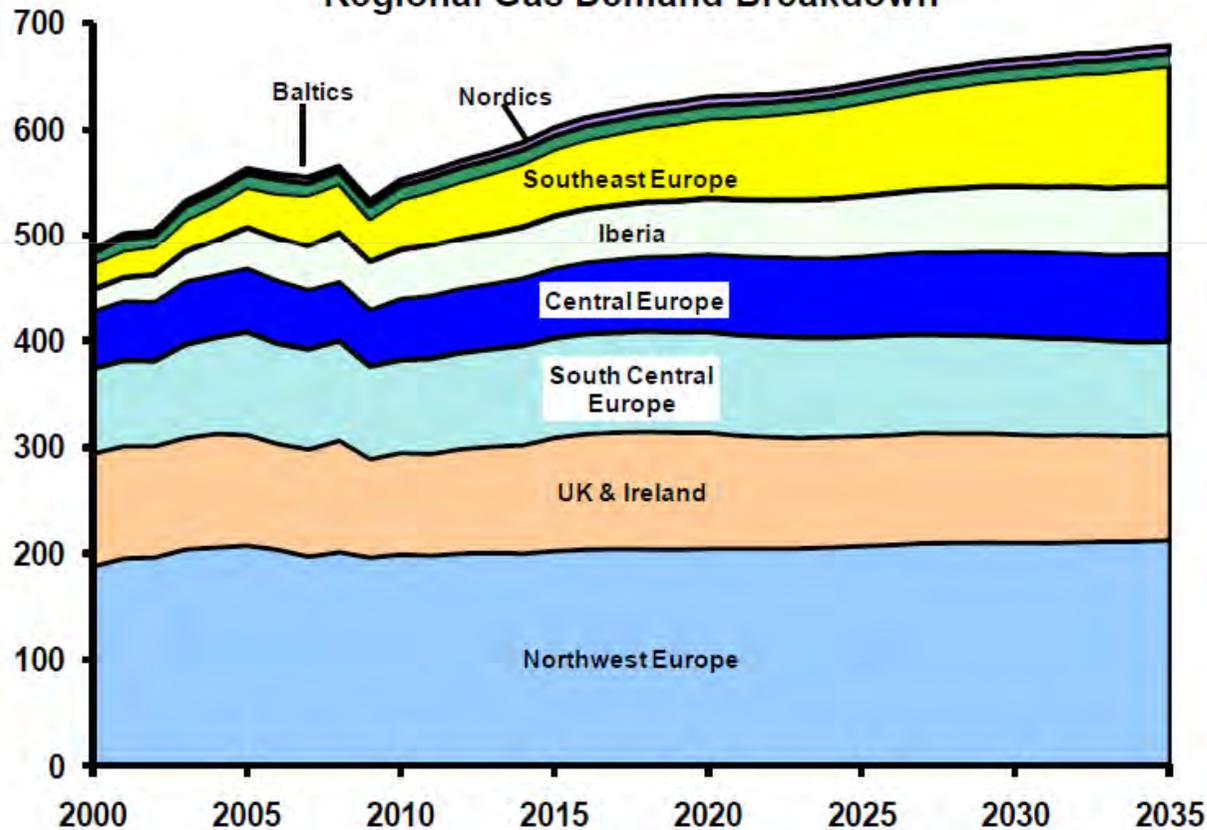
## **DEVELOPED GAS SECTOR**

- ◆ **IN COUNTRIES WITH OWN NATURAL GAS RESERVES AND PRODUCTION**
- ◆ **IN COUNTRIES IN THE VICINITY OF THE COUNTRIES WITH SIGNIFICANT NG RESERVES AND PRODUCTION**
- ◆ **IN COUNTRIES THROUGH WHICH SIGNIFICANT NATURAL GAS TRANSIT ROUTES ARE PASSING OR THE COUNTRIES IN THE VICINITY OF SIGNIFICANT NATURAL GAS TRANSIT ROUTES**
- ◆ **IN COUNTRIES WITH LNG TERMINALS**

## **UNDEVELOPED GAS SECTOR**

- ◆ **IN COUNTRIES WITHOUT OWN NATURAL GAS RESERVES AND PRODUCTION**
- ◆ **IN COUNTRIES WHICH ARE NOT IN THE VICINITY OF THE COUNTRIES WITH SIGNIFICANT NATURAL GAS RESERVES AND PRODUCTION**
- ◆ **IN COUNTRIES THROUGH WHICH NO SIGNIFICANT NATURAL GAS TRANSIT ROUTES ARE PASSING OR THE COUNTRIES FAR AWAY FROM SIGNIFICANT NATURAL GAS TRANSIT ROUTES**
- ◆ **IN COUNTRIES WITH NO LNG TERMINALS**
- ◆ **IN COUNTRIES WITH OTHER OWN ENERGY SOURCES OR OTHER ENERGY SOURCES AVAILABLE FROM IMPORT**
- ◆ **IN UNDEVELOPED COUNTRIES WITH POOR ECONOMY**

Regional Gas Demand Breakdown

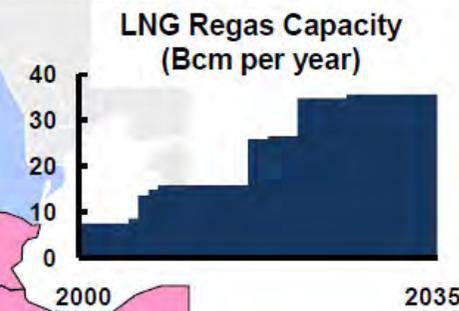
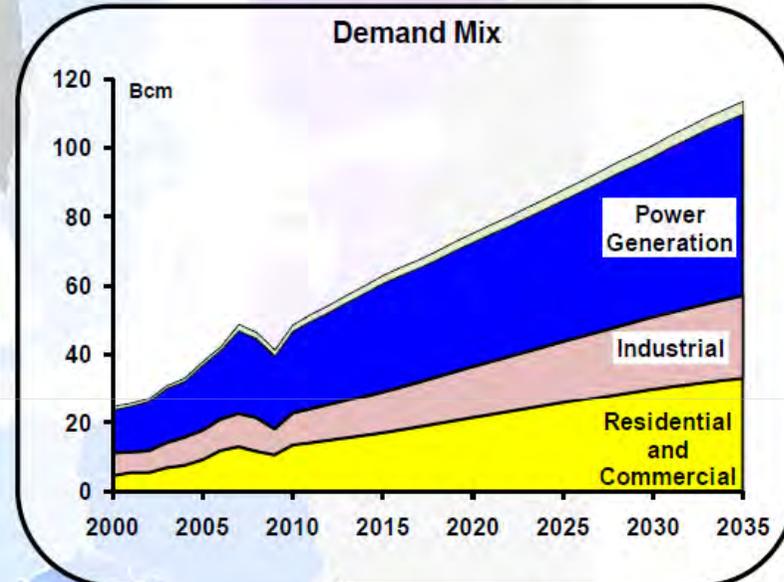
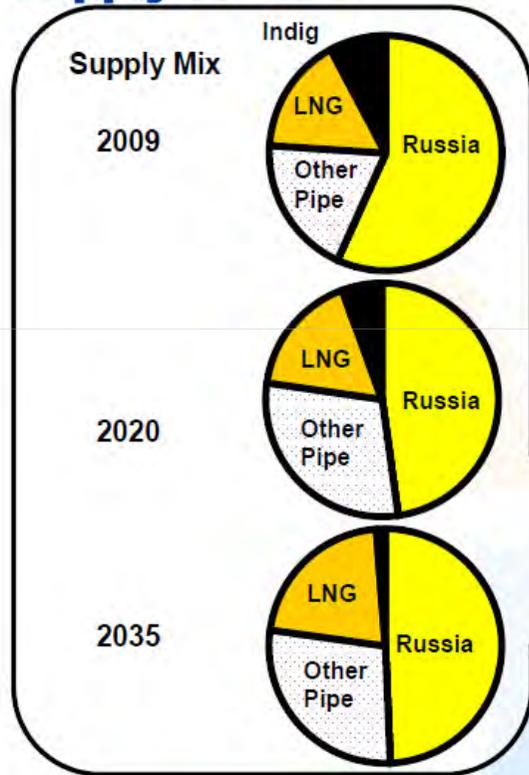


**Southeast Europe**

- Large potential for growth, particularly in Turkey with rapidly increasing population and current low per capita energy usage
- Extension of the residential gas grid, switching to gas in the industrial sector, and substantial power generation build



**Southeast Europe  
Supply Picture**



- Demand in the region grows rapidly and is met by a range of sources
- All major suppliers grow significantly to meet demand
- Fourth corridor built in incremental steps, connecting into the "Balkans ring" to supply the region
- New regas capacity in Croatia provides diversity to the Balkans





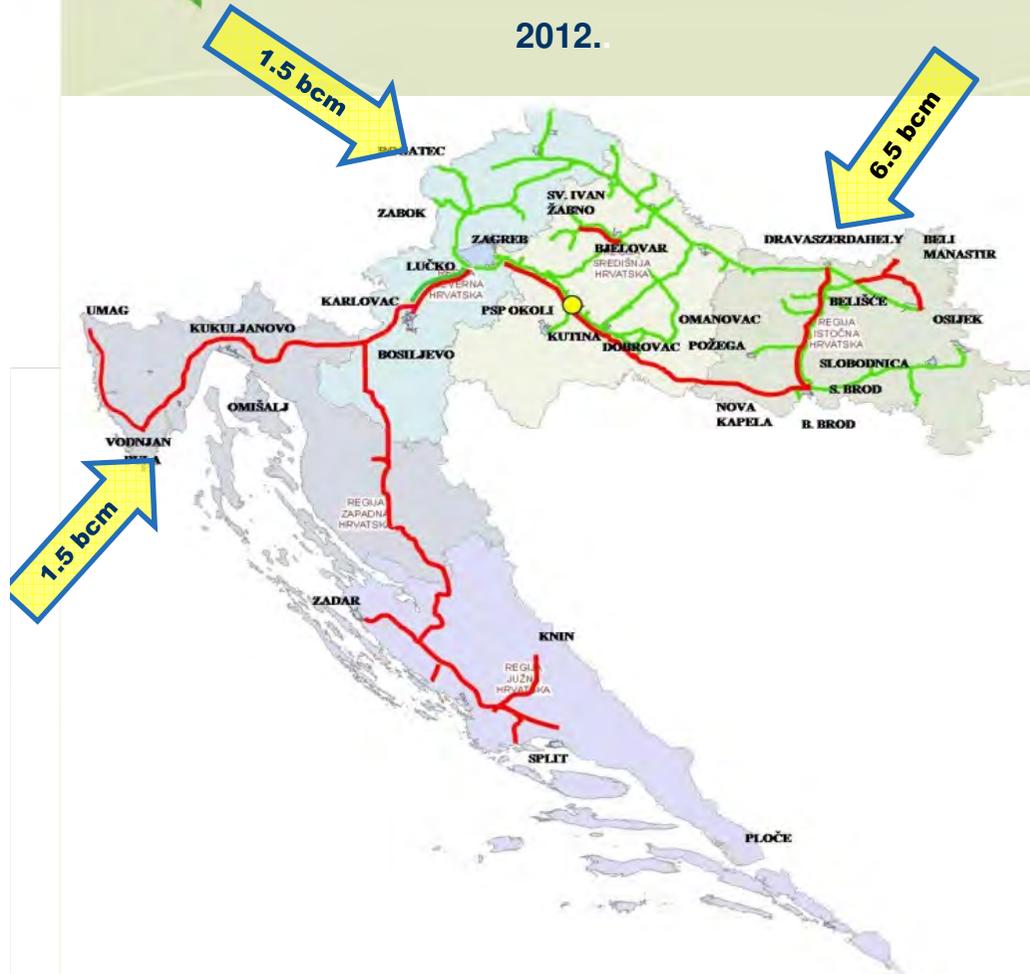
NABUCCO  
SOUTH STREAM  
ITGI  
TAP + IAP  
LNG (Adria, LNGRV...)



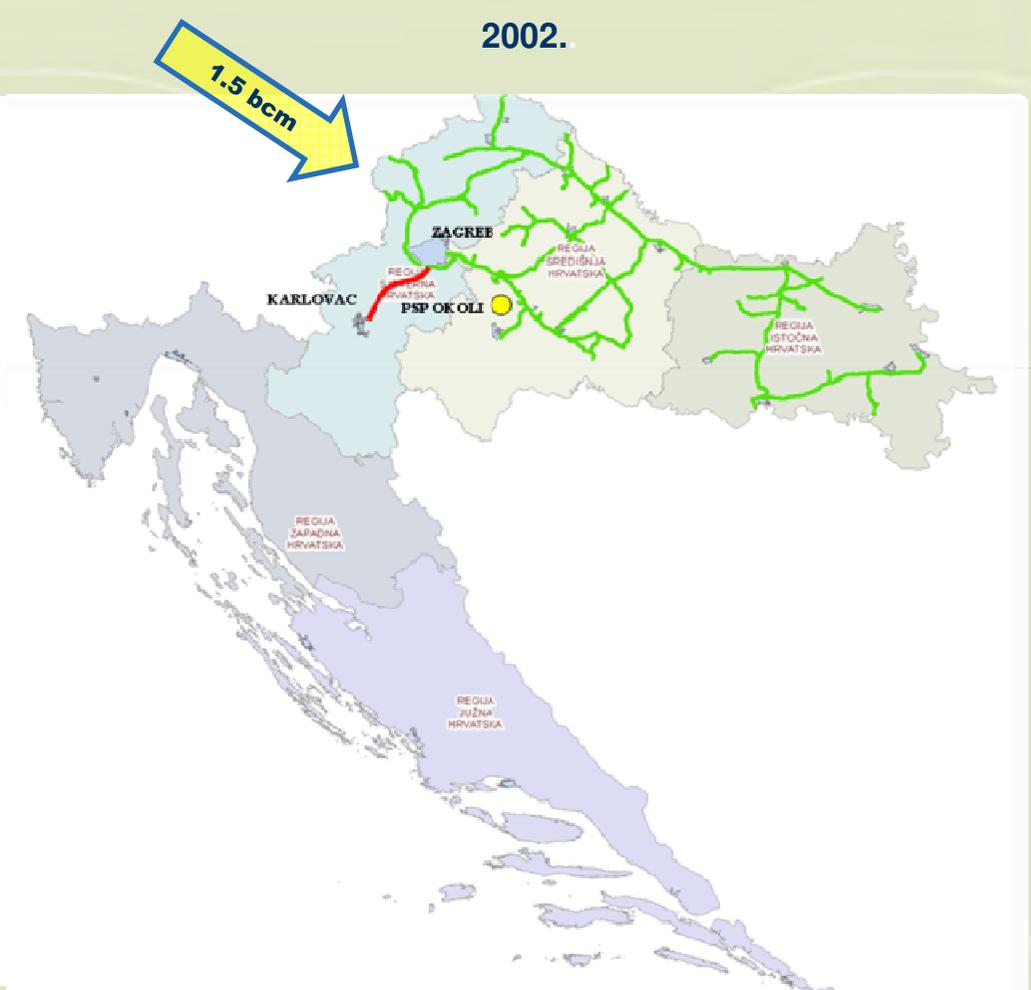
**CRUCIAL FOR SEE NATURAL GAS SECTOR DEVELOPMENT, SINCE BY PASSING OVER THE TERRITORIES OF THESE COUNTRIES THEY WILL:**

- Increase the existing gas transmission systems and interconnect them
- Be a backbone of development of gas transmission systems in the countries with yet underdeveloped systems
- Connect gas transmission systems of SEE countries and integrate them in the comprehensive European gas transmission system
- Provide natural gas supply from new Middle East, Caspian and other sources
- Provide integration of SEE gas market in the European gas market

2012.



2002.



**HIGHLY DEVELOPED NATIONAL GAS TRANSMISSION SYSTEM**



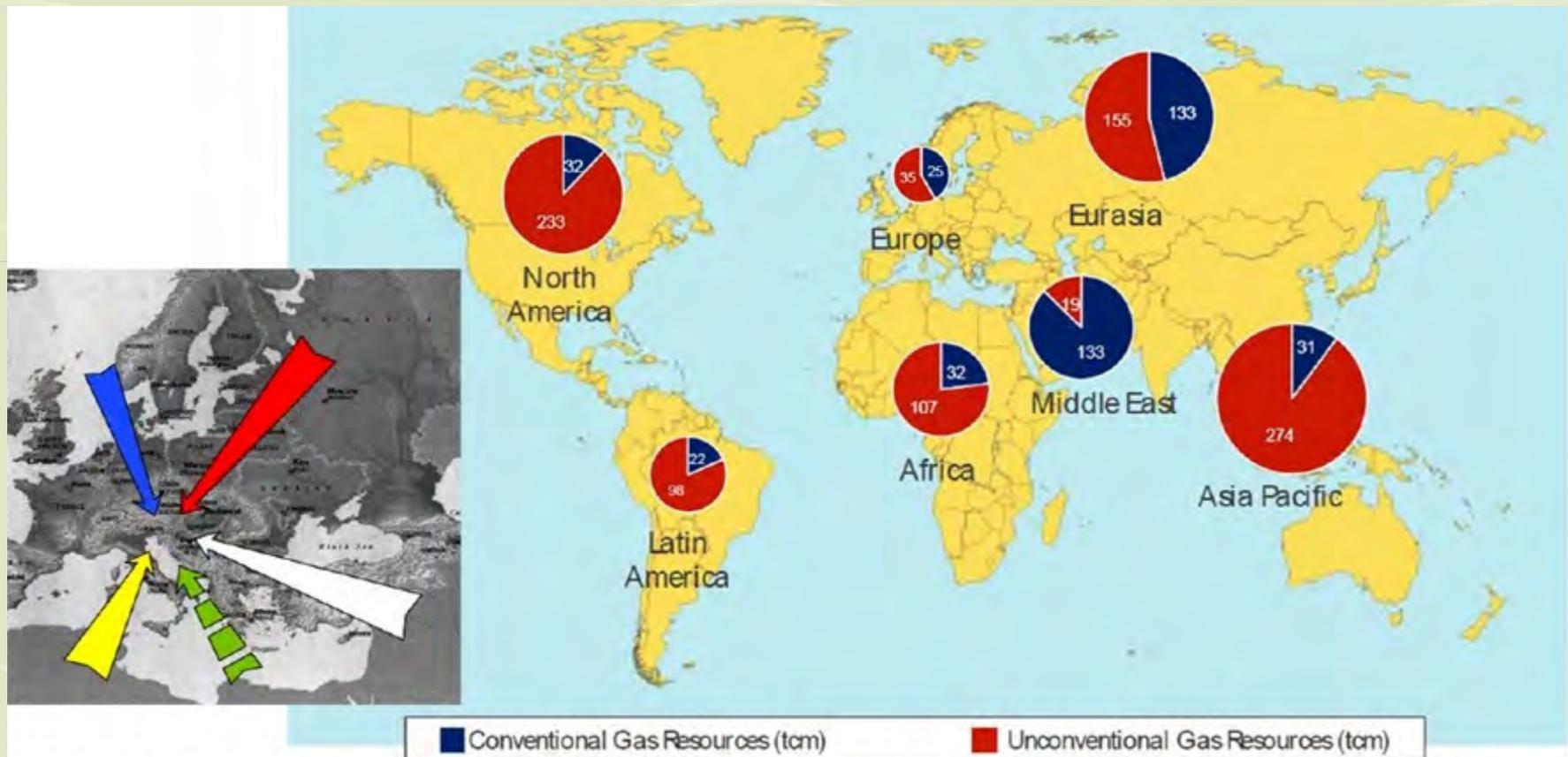
**ORIENTATION TOWARDS THE DEVELOPMENT OF INTERCONNECTIONS AND TRANSIT GAS PIPELINES WITH THE AIM TO CONNECT AND INTEGRATE WITH NEW SUPPLY PROJECTS**

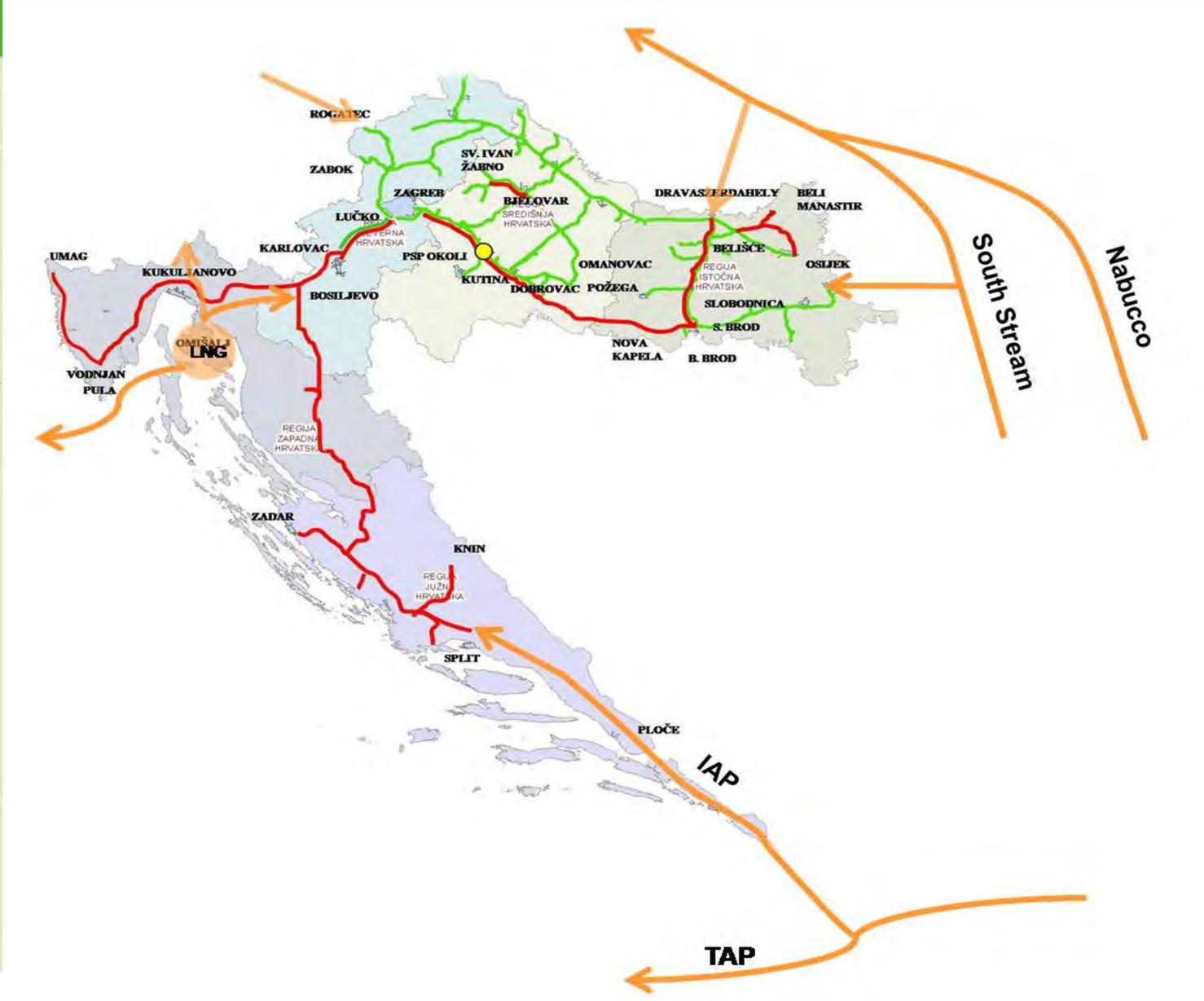


**INTEGRATION IN REGIONAL AND EUROPEAN NATURAL GAS ROUTES**



**INTEGRATION IN REGIONAL AND EUROPEAN NATURAL GAS MARKET**





# DIRECTIONS OF THE DEVELOPMENT OF THE GAS TRANSMISSION SYSTEM AND INTERCONNECTIONS IN THE REPUBLIC OF CROATIA



September 2007- Albania, Montenegro and Croatia signed **Ministerial Declaration**.

December 2008 - Bosnia and Herzegovina signed **Ministerial Declaration**.

EGL and Plinacro signed **Memorandum of Understanding**.

Established – Intergovernmental Steering Committee and Working Group

June 2010 – Interstate Committee established

January 2011-Request for financing from WBIF for comprehensive feasibility study for the entire IAP lead by Croatia i.e. Plinacro

February 2011 – Plinacro and TAP signed **Memorandum of Understanding**.

April 2011 – TAP/Plinacro Joint Working Group established

Preparatory work – in progress – within framework of Interstate Committee, lead by Croatia

Connection of gas transmission system of Lika and Dalmatia with TAP Project (Trans – Adriatic- Pipeline)

MP Split (HR) – Fieri (ALB) DN800 - DN1000 / 75 bar, L= 520 km

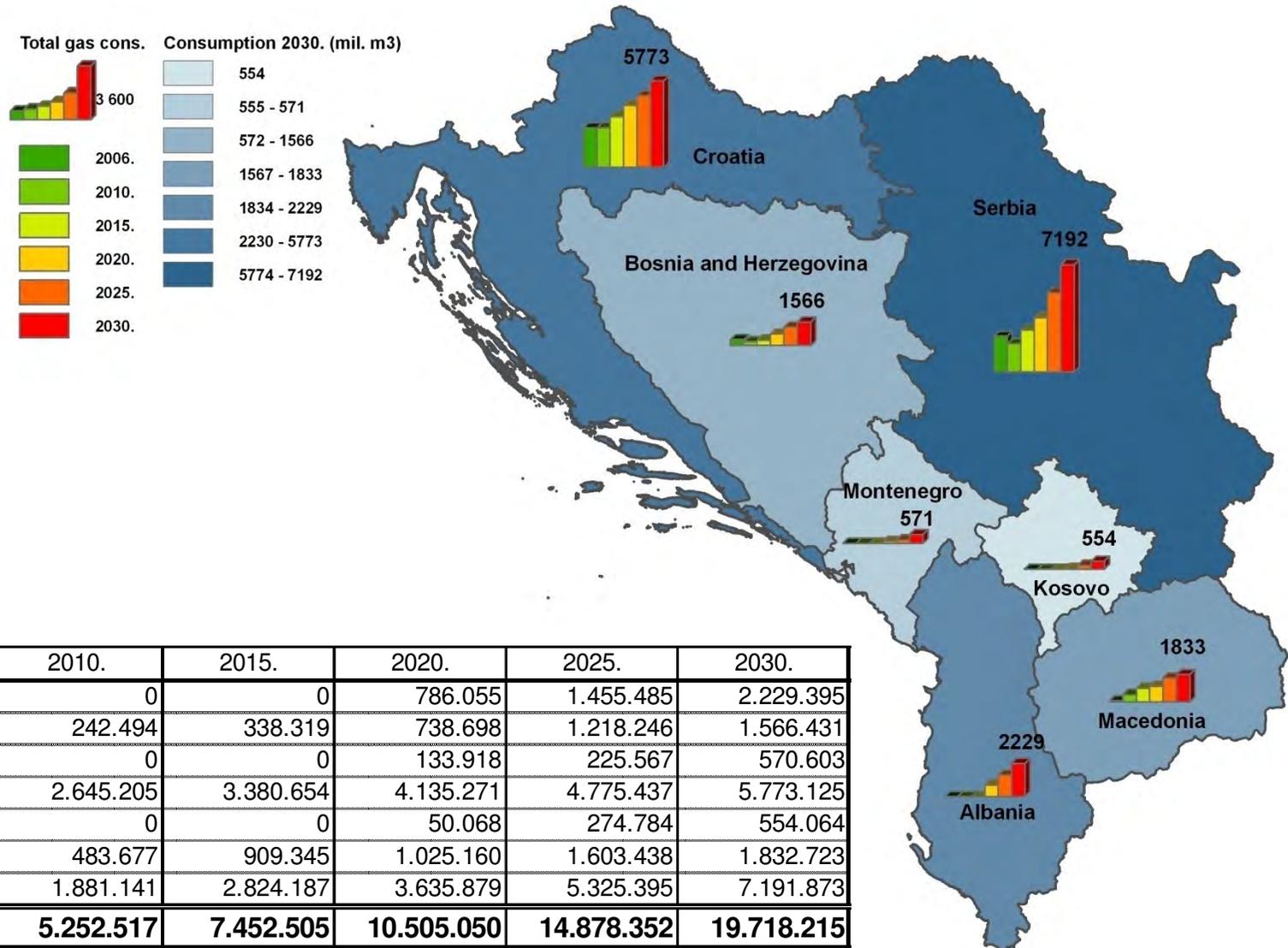
Supply with natural gas - Albania, Montenegro, Bosnia and Herzegovina and Croatia

Max capacity: 5 bcm/y

Possibility of **transit** of natural gas to Central and Western Europe

Possibility of **reverse flow**







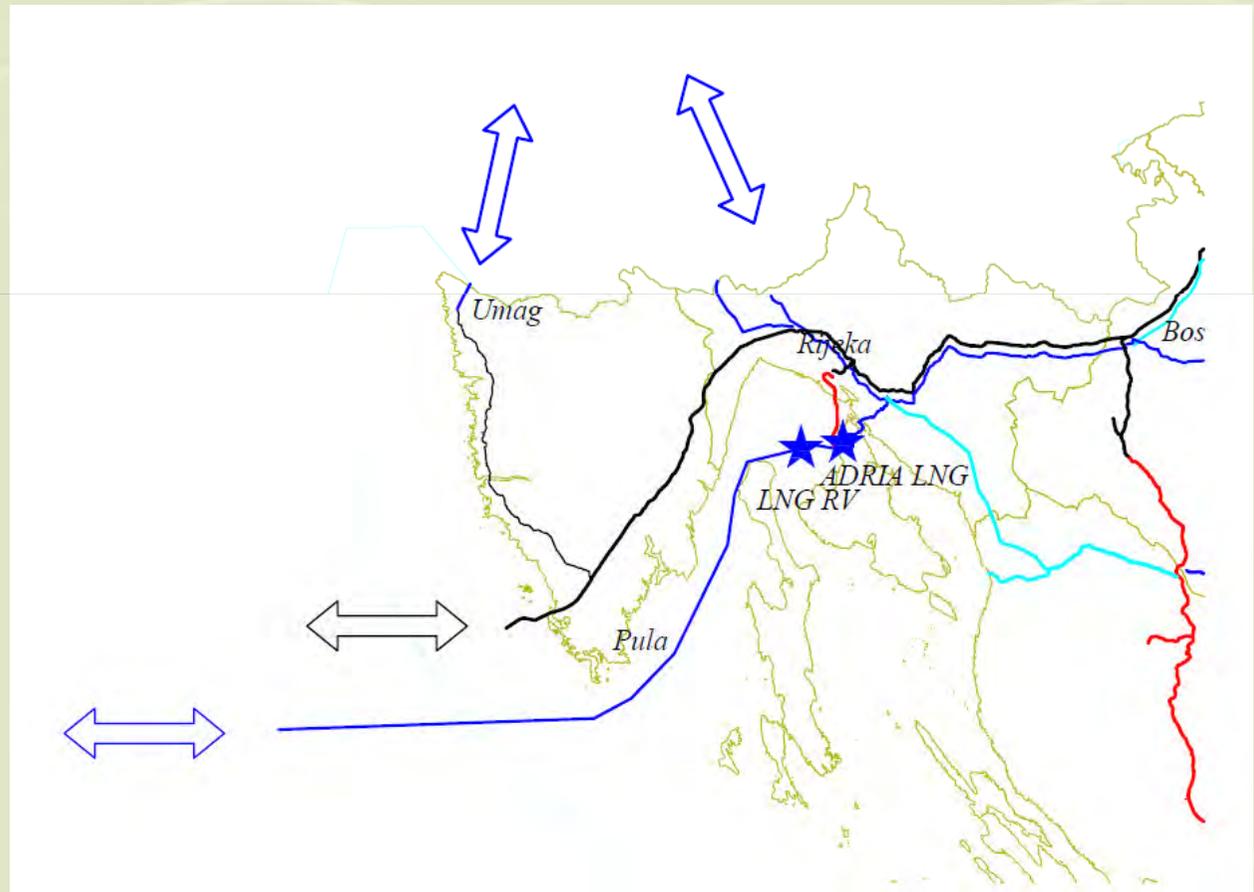
Adria LNG Terminal (10-15 bcm) project has been postponed

- the final investment decision has been postponed and the start of terminal operation has been publicly announced (final investment decision not before 2013, the start of operation not before 2017)
- Considering the present gas market status in the CEE and EU region, this project is too large for the existing market

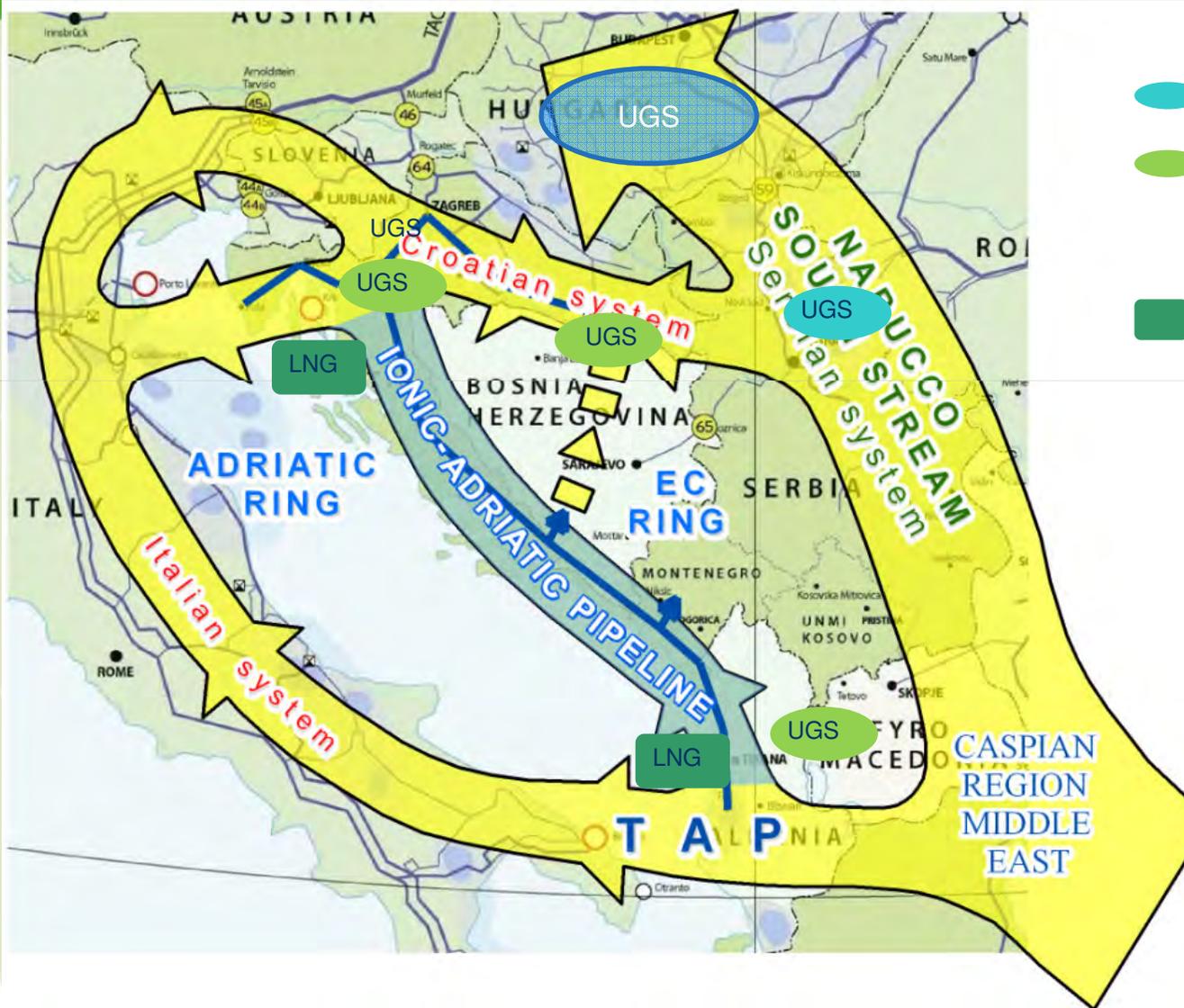
Our estimates - max 4-6 bcm

**LNG RV**

- construction of installations for connection of LNG regasification vessel to the gas transmission system
- smaller investment
- shorter construction deadlines
- bridging over the period until a large LNG terminal is put into operation



### EC RING + ADRIATIC RING



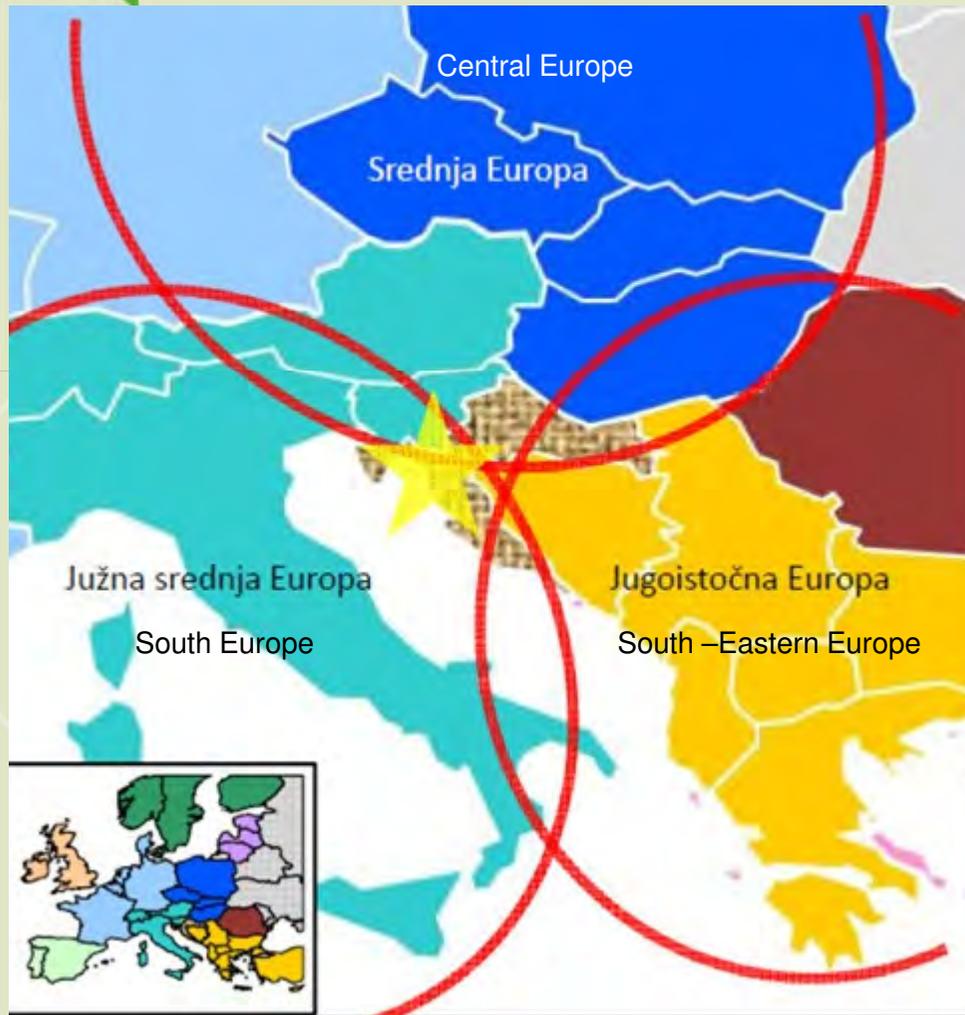
### UNDERGROUND STORAGE

- UGS – existing
- UGS – planned

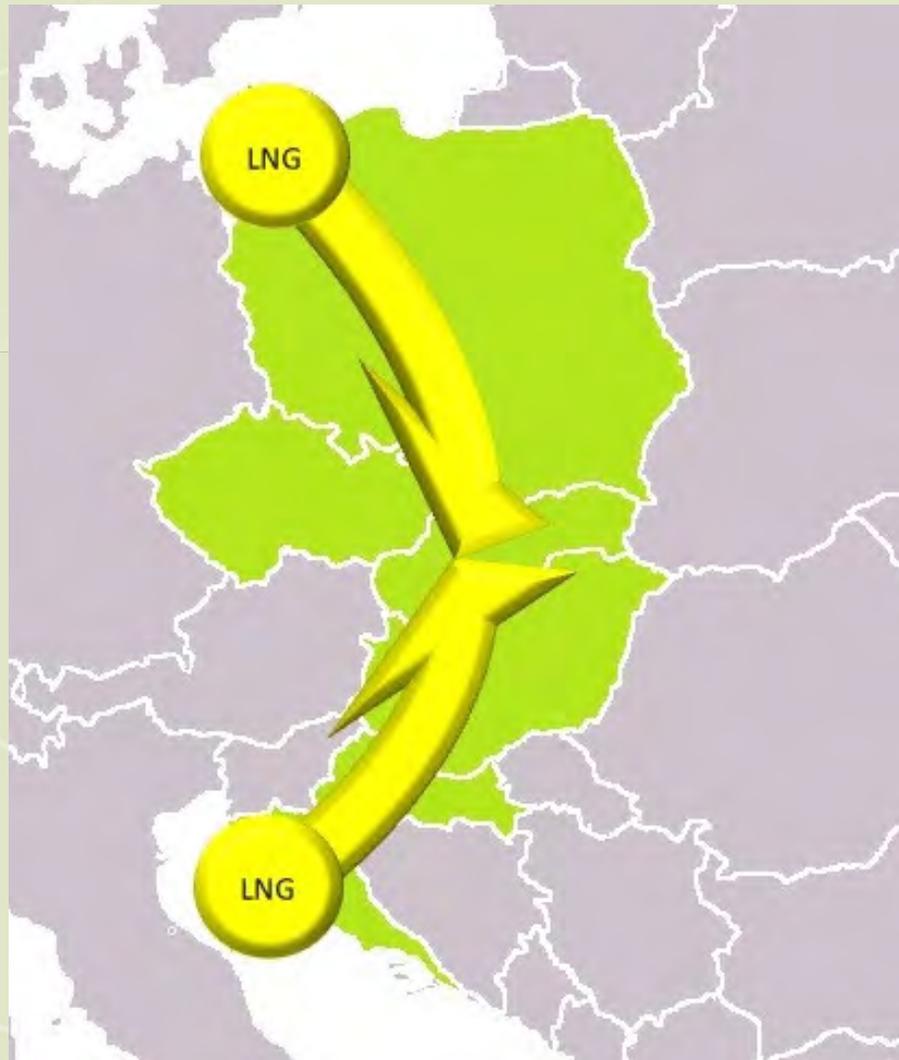
### LNG TERMINALS

- LNG - planned





**APART FROM A REGIONAL ROLE,  
THE SPECIFIC POSITION OF CROATIA GIVES  
US THE ROLE IN INTERREGIONAL  
INTERCONNECTING GAS TRANSMISSION  
SYSTEMS AND MARKETS**



ESTABLISHMENT OF THE GAS PIPELINE CONNECTION  
WITH Footholds IN THE POLISH AND THE CROATIA  
LNG TERMINAL



CONNECTION OF THE GAS TRANSMISSION SYSTEMS OF  
POLAND, CZECH REPUBLIC, SLOVAKIA, HUNGARY AND  
CROATIA

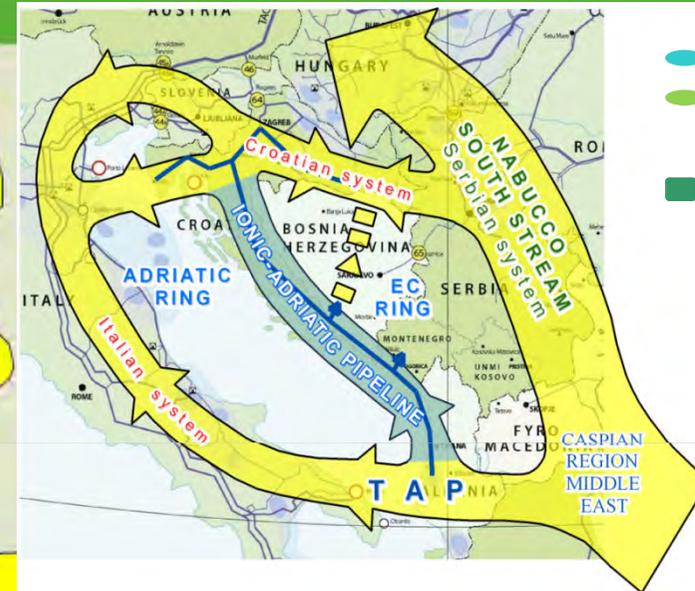


CONNECTION OF THE MARKETS AND INTEGRATION INTO  
THE EUROPEAN NATURAL GAS MARKET



**SECURITY OF SUPPLY**

# POTENTIALS OF CROATIA IN REGIONAL AND INTERREGIONAL CONNECTING GAS TRANSMISSION SYSTEMS AND MARKETS



-  UNDERGROUND STORAGE
-  UGS – existing
-  UGS – planned
-  LNG TERMINALS
-  LNG - planned

**NEW NATURAL GAS SUPPLY PROJECTS**



**CRUCIAL FOR SEE NATURAL GAS SECTOR DEVELOPMENT  
AND ITS INTEGRATION IN THE EUROPEAN NATURAL GAS  
MARKET**

**plinacro**

**Thank you for  
your attention!**