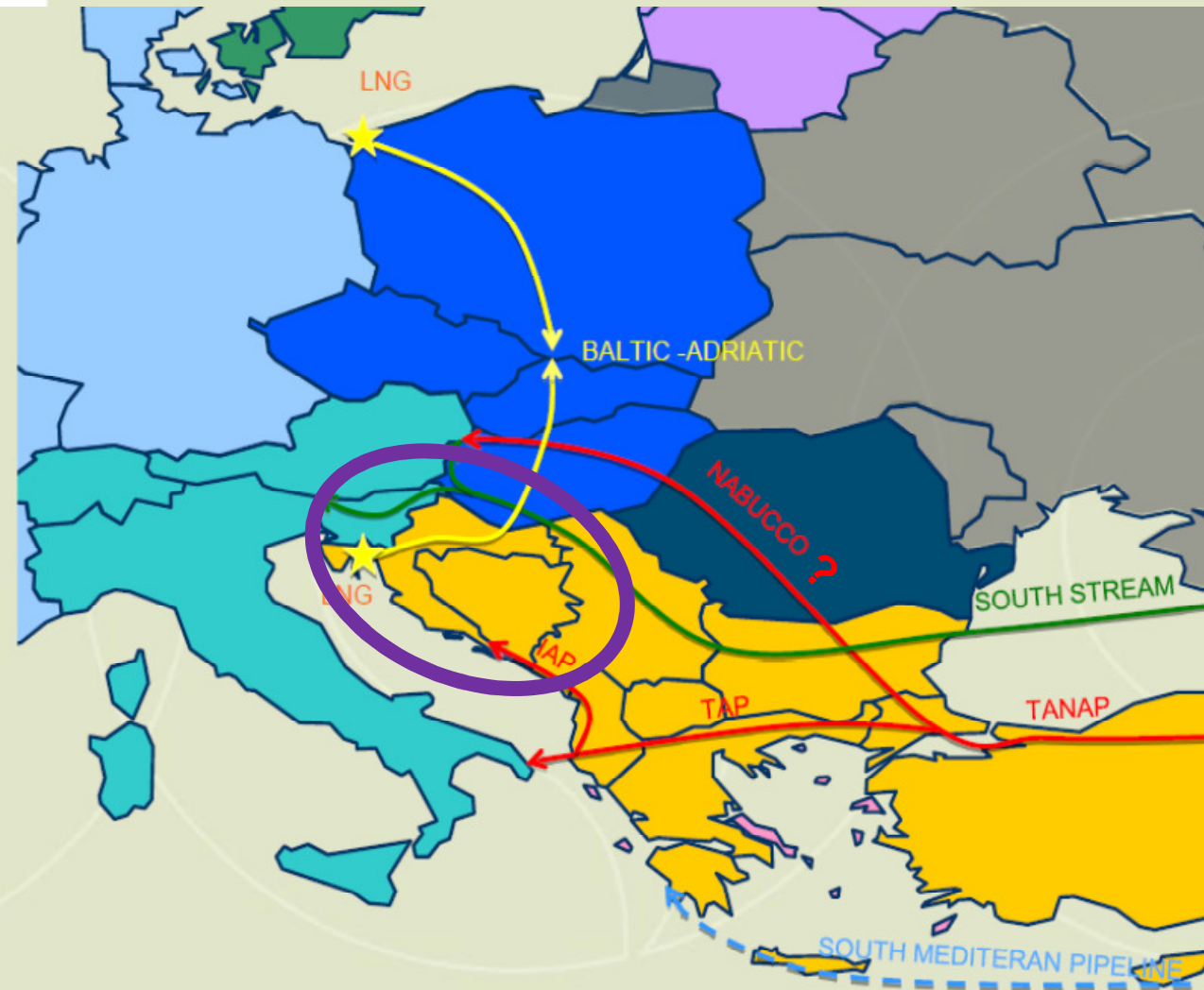


# **CROATIAN ROLE IN THE REGIONAL NATURAL GAS MARKET DEVELOPMENT AND SECURITY OF SUPPLY**

**Vladimir Đurović**

**8<sup>th</sup> SOUTH EAST EUROPE ENERGY DIALOGUE  
11 & 12 June 2014, Thessaloniki**



HIGHLY DEVELOPED NATIONAL  
GAS TRANSMISSION SYSTEM

+

UGS POTENTIALS

+

INTERCONNECTIONS

+

NEW SUPPLY PROJECTS



INCORPORATION IN REGIONAL AND  
EUROPEAN GAS FLOWS



INTEGRATION IN REGIONAL AND  
EUROPEAN GAS MARKET

# REACHED LEVEL OF DEVELOPMENT OF THE CROATIAN GAS TRANSMISSION SYSTEM



**Covered 95% of the territory**  
**Significant transmission capacities**  
**Significant interconnection with the**  
**systems of neighbouring countries**



**Upgrade of the system for domestic requirements**  
**Development of the system for transit requirements**  
**CONNECTING TO NEW SUPPLY**  
**PROJECTS-ROUTES**

**HIGHLY DEVELOPED NATIONAL GAS TRANSMISSION SYSTEM**

- + SIGNIFICANT POTENTIALS FOR NEIGHBOURING COUNTRIES
- + READINESS FOR NEW SUPPLY PROJECTS



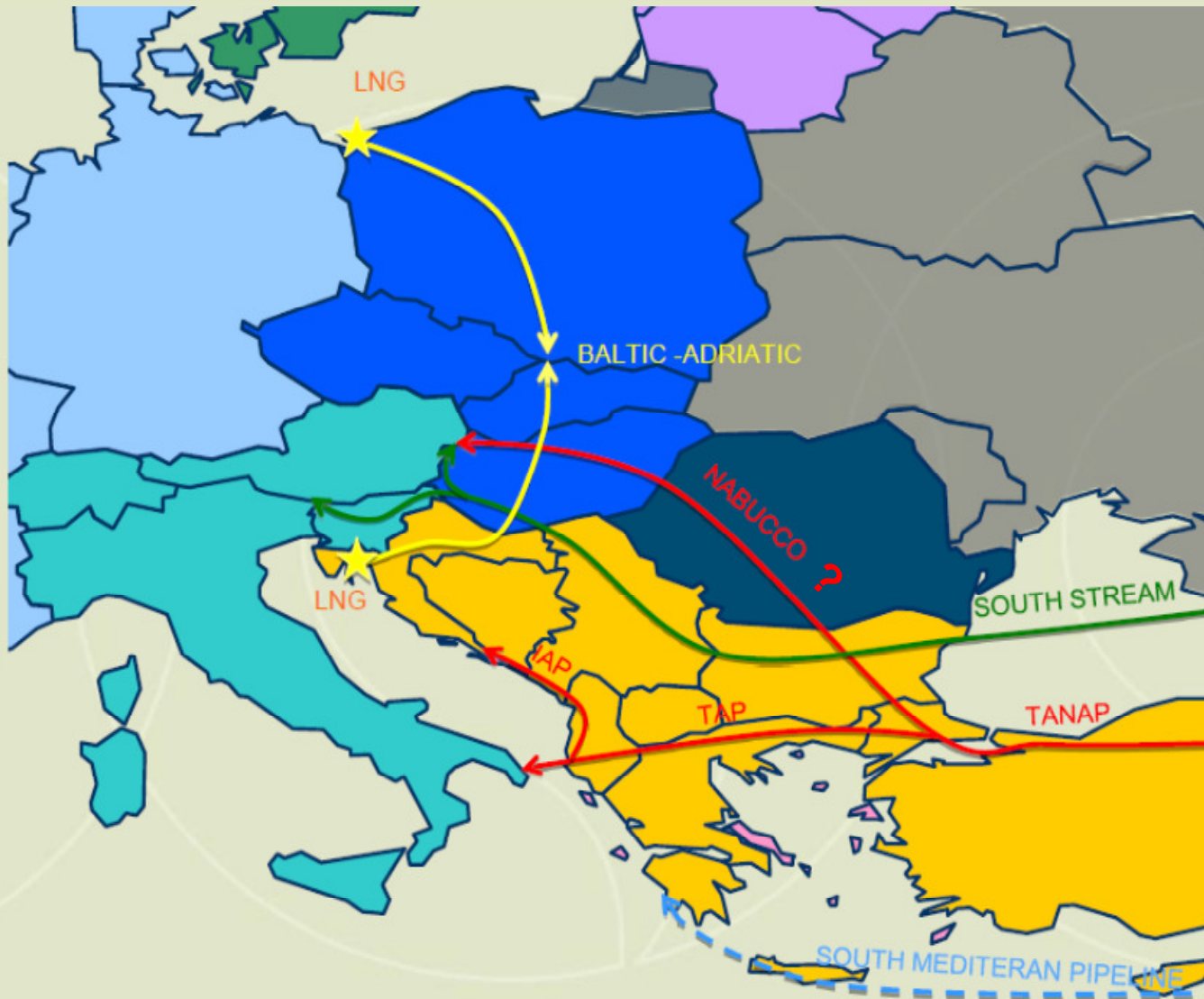
**ORIENTATION TOWARDS DEVELOPMENT OF INTERCONNECTIONS AND TRANSIT GAS PIPELINES WITH THE AIM TO CONNECT AND INTEGRATE WITH NEW SUPPLY PROJECTS**



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



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



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

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

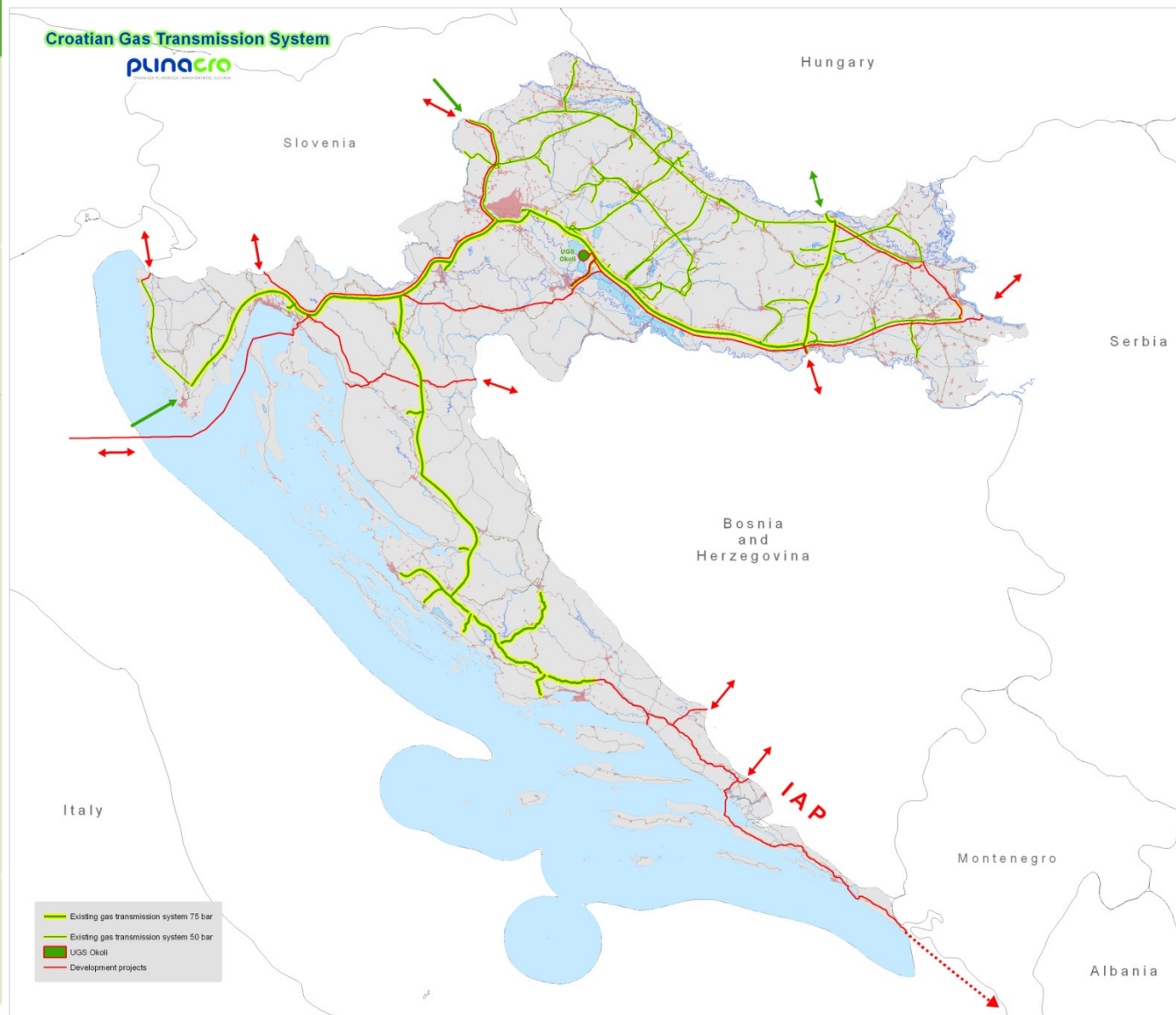
- Expand existing gas transmission systems and interconnect them
- Be a backbone of development of the gas transmission systems in the countries where those systems are still underdeveloped
- Connect gas transmission systems of SEE countries and integrate them into the comprehensive European gas transmission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

### Interconnections:

- Interconnections Croatia/BiH
- Interconnections Croatia/Slovenia
- Interconnection Croatia/Serbia
- Interconnection Croatia/Italy

### Regional projects:

- Ionian-Adriatic Pipeline (IAP)
- LNG Project
- South Stream
- North – South Gas Corridor



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

MP Split (CRO) – Fieri (ALB) DN800 / 85-75 bar, L= 511 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**

**September 2007- Albania, Montenegro and Croatia signed Ministerial Declaration. December 2008 - Bosnia and Herzegovina signed Ministerial Declaration.**

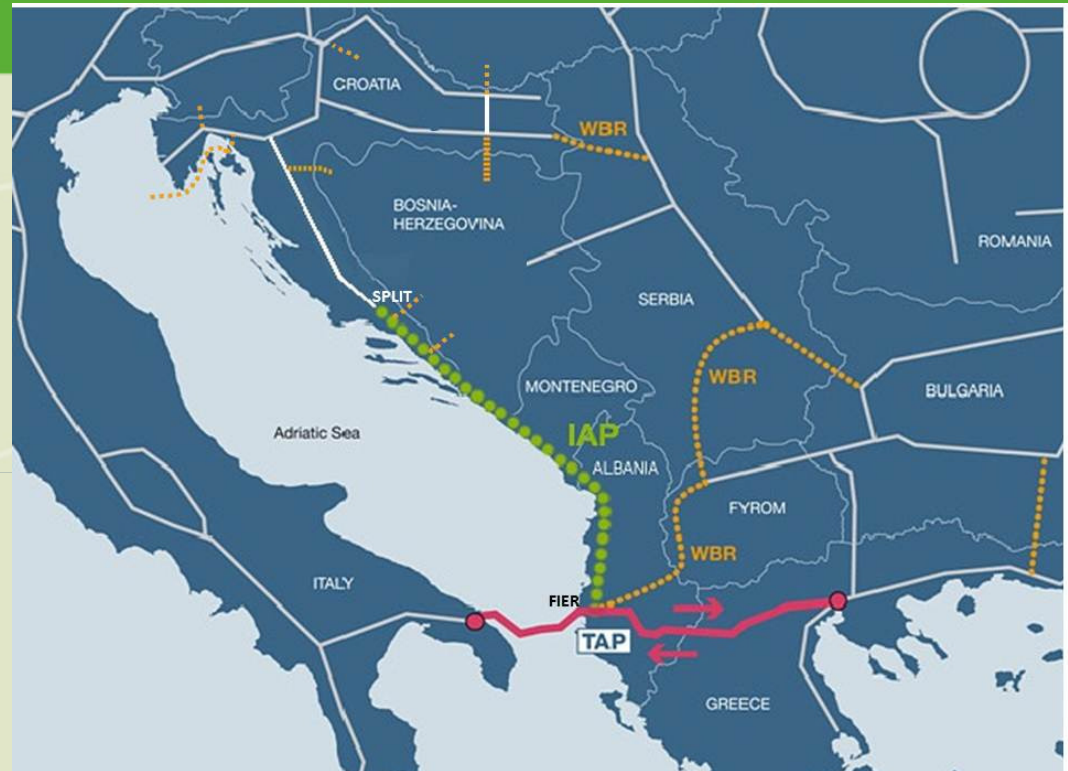
**EGL and Plinacro signed MOU**

**June 2010 – Interstate Committee established, led by Croatia**

**February 2011 – Plinacro and TAP signed MORIS**

**March 2013 – SOCAR/Plinacro signed MOUC**

Request for financing from **WBIF** for **comprehensive feasibility study** for the entire IAP led by Croatia i.e. Plinacro; granted EUR 3,5 million – ***STUDY COMPLETED***

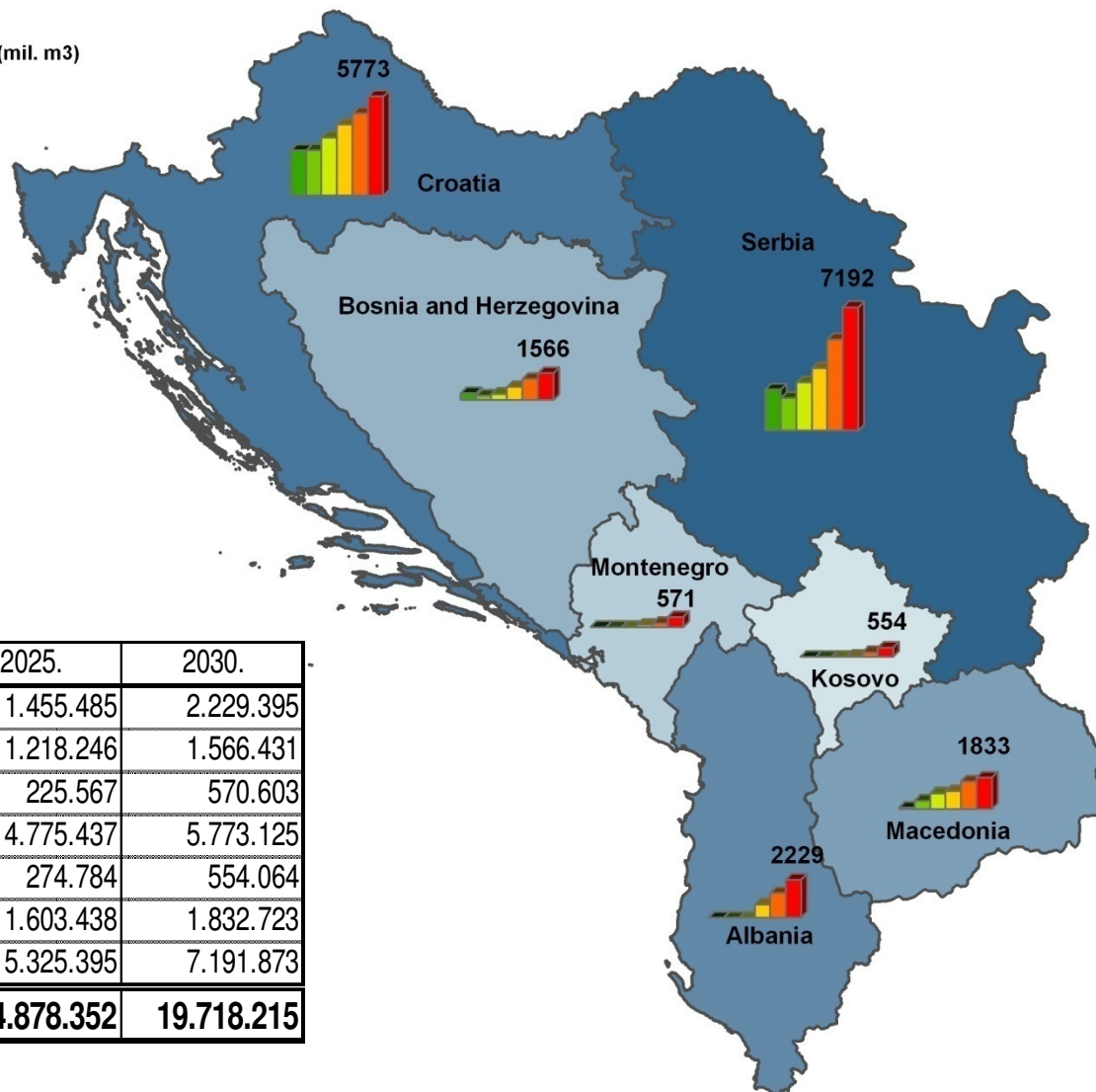
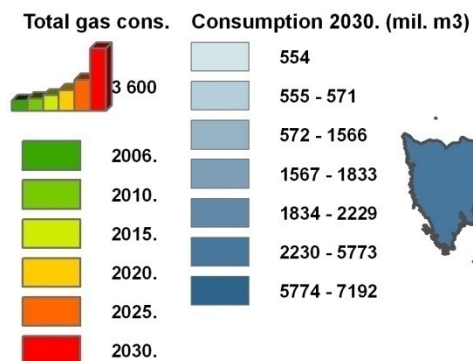


Source IAP – Feasibility Study

**28 June 2013 - Shah Deniz Consortium took decision on the selection of the TRANS ADRIATIC PIPELINE (TAP) for the transmission of gas from Shah Deniz II field**

➤ **Decision – additional impetus and encouragement for the Ionian Adriatic Pipeline**





Country (1000 m3)	2010.	2015.	2020.	2025.	2030.
<b>Albania</b>	0	0	786.055	1.455.485	2.229.395
<b>Bosnia and Herzegovina</b>	242.494	338.319	738.698	1.218.246	1.566.431
<b>Montenegro</b>	0	0	133.918	225.567	570.603
<b>Croatia</b>	3.000.000	3.380.654	4.135.271	4.775.437	5.773.125
<b>Kosovo</b>	0	0	50.068	274.784	554.064
<b>Macedonia</b>	483.677	909.345	1.025.160	1.603.438	1.832.723
<b>Serbia</b>	1.881.141	2.824.187	3.635.879	5.325.395	7.191.873
<b>TOTAL</b>	<b>5.607.312</b>	<b>7.452.505</b>	<b>10.505.050</b>	<b>14.878.352</b>	<b>19.718.215</b>

**LNG Croatia:**

Founded in 2010 - Plinacro 50%  
(leaving the project), HEP 50%

Capacity: 4-6 bcm/y

Request for financing from WBIF for  
CS, FS and CD; approved EUR 1  
million

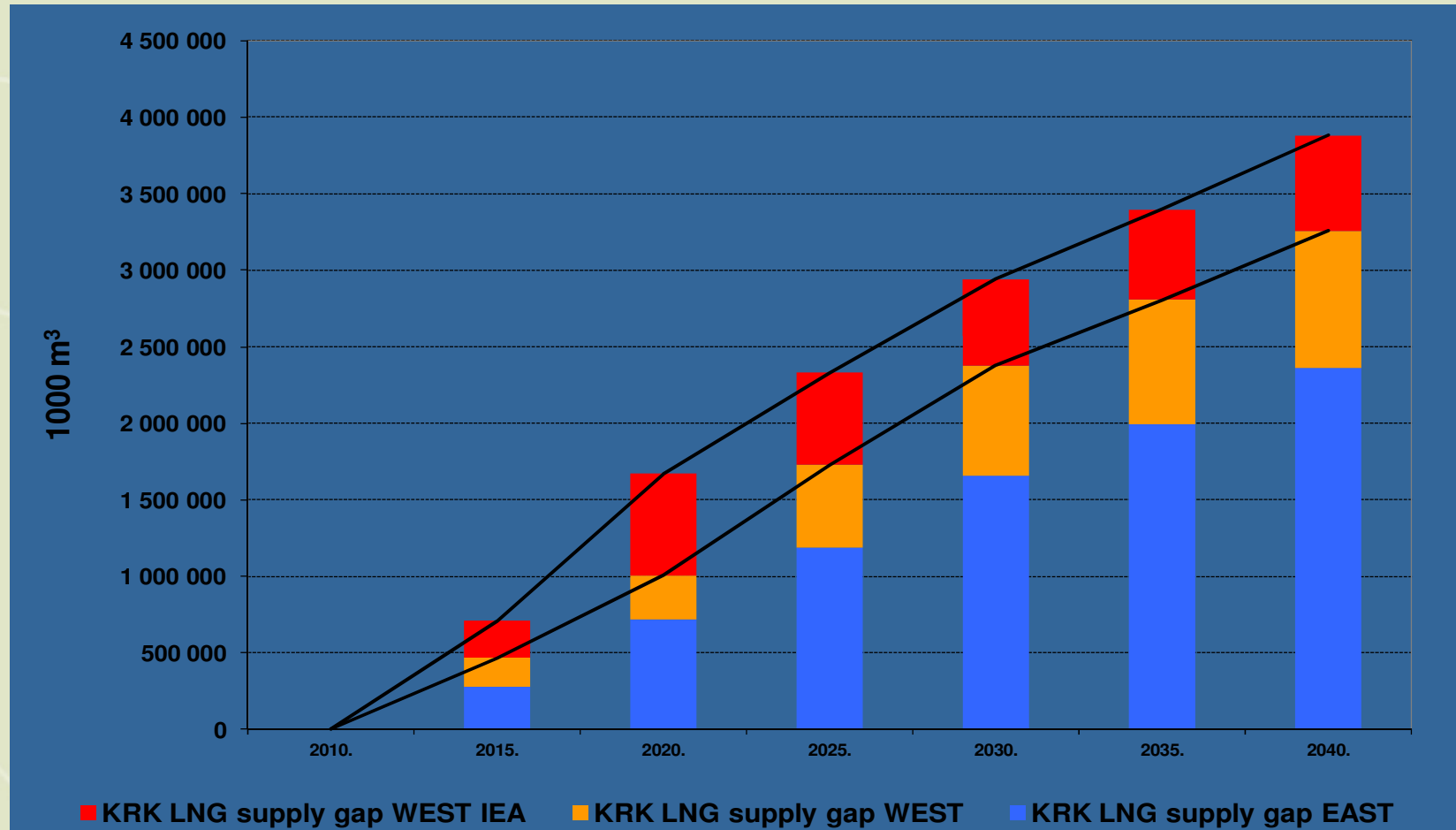
Drawing up the Study started in  
August 2012, finalizing – beginning  
of 2014



WEST  
Austria,  
Slovenia,  
Hungary,  
Slovakia,  
Czech Republic



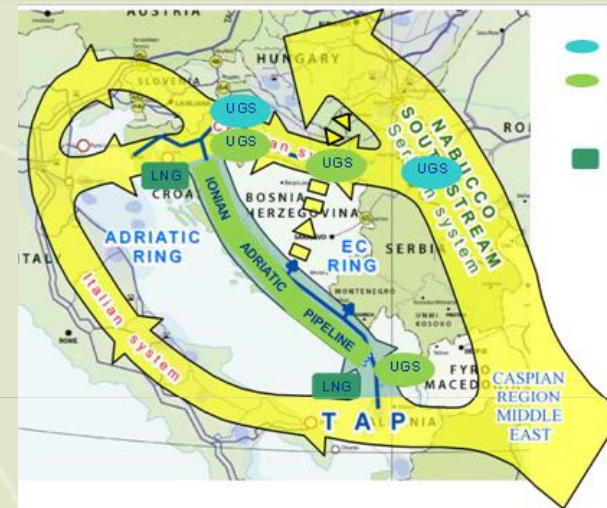
EAST  
Albania,  
Bosnia and  
Herzegovina,  
Montenegro,  
Croatia  
Kosovo\*,  
FYROM,  
Serbia



Ideas of supplying additional markets (Ukraine and Romania) were not analyzed within this study



# REGIONAL AND TRANSREGIONAL INTERCONNECTIONS



- PODZEMNA SKLADIŠTA
- UGS - postojeća
  - UGS - planirana
- TERMINALI UKAPLJENOG PRIRODNOG PLINA
- LNG - planirani

**GREAT DEVELOPMENT POTENTIAL IS**

**SINERGY OF REGIONAL AS WELL AS  
TRANSREGIONAL  
APPROACH AND ACTIVITY**



**MARKET DEVELOPMENT  
AND  
SECURITY OF SUPPLY**



## PROJECTS OF COMMON INTEREST- PCI

- **1. Interconnection HR/SLO (Bosiljevo-Karlovac-Lučko-Zabok-Rogatec)**
- **2. IAP**
- **3. Cluster Krk LNG**
  - **LNG Project**
  - **Omišalj-Zlobin Rupa – connected with Jelšane-Kalce**
  - **Zlobin-Bosiljevo-Sisak-Kozarac-Slobodnica**
  - **Omišalj-Casal Borsetti**

## PROJECTS OF ENERGY COMMUNITY INTEREST - PECI

- **1. IAP**
- **2. Interconnection HR/BiH (Slobodnica-B. Brod-Zenica)**
- **3. Interconnection HR/BiH (southern interconnection)**
- **4. Interconnection HR/BiH (western interconnection)**
- **5. LNG Project + Zlobin-Bosiljevo-Sisak-Kozarac-Slobodnica**
- **6. Interconnection HR/SRB (Slobodnica – Sotin – Bačko Novo Selo)**



- 1. COMPRESSOR STATIONS**
- 2. INTERCONNECTION HR/SLO Bosiljevo-Karlovac-Lučko-Zabok-Rogatec**
- 3. IONIAN – ADRIATIC PIPELINE (IAP)**

**MEETING DOMESTIC MARKET REQUIREMENTS**

**+**

**INTEGRATION INTO NEW SUPPLY PROJECTS  
AND REGIONAL AND EUROPEAN NATURAL  
GAS ROUTES**



**MARKET DEVELOPMENT**

**+**

**SECURITY OF SUPPLY**

**plinacro**

**Thank you for  
your attention!**