

Croatian Gas Transmission System North – South Gas Corridor

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PLINACRO GROUP

PLINACRO - Croatian Gas TSO

- 100% state-owned company
- In charge of development, modernisation, construction and maintenance of the Croatian gas transmission system

PSP – Operator of the UGS

- 100%-owned by Plinacro

LNG HRVATSKA – development of LNG terminal

- Plinacro is a co-founder of the company with HEP (power company)

CROATIAN GAS TRANSMISSION SYSTEM

•2693 km high pressure gas system

952 km – 75 bar

1741 km – 50 bar

•157 MRS (282 metering lines)

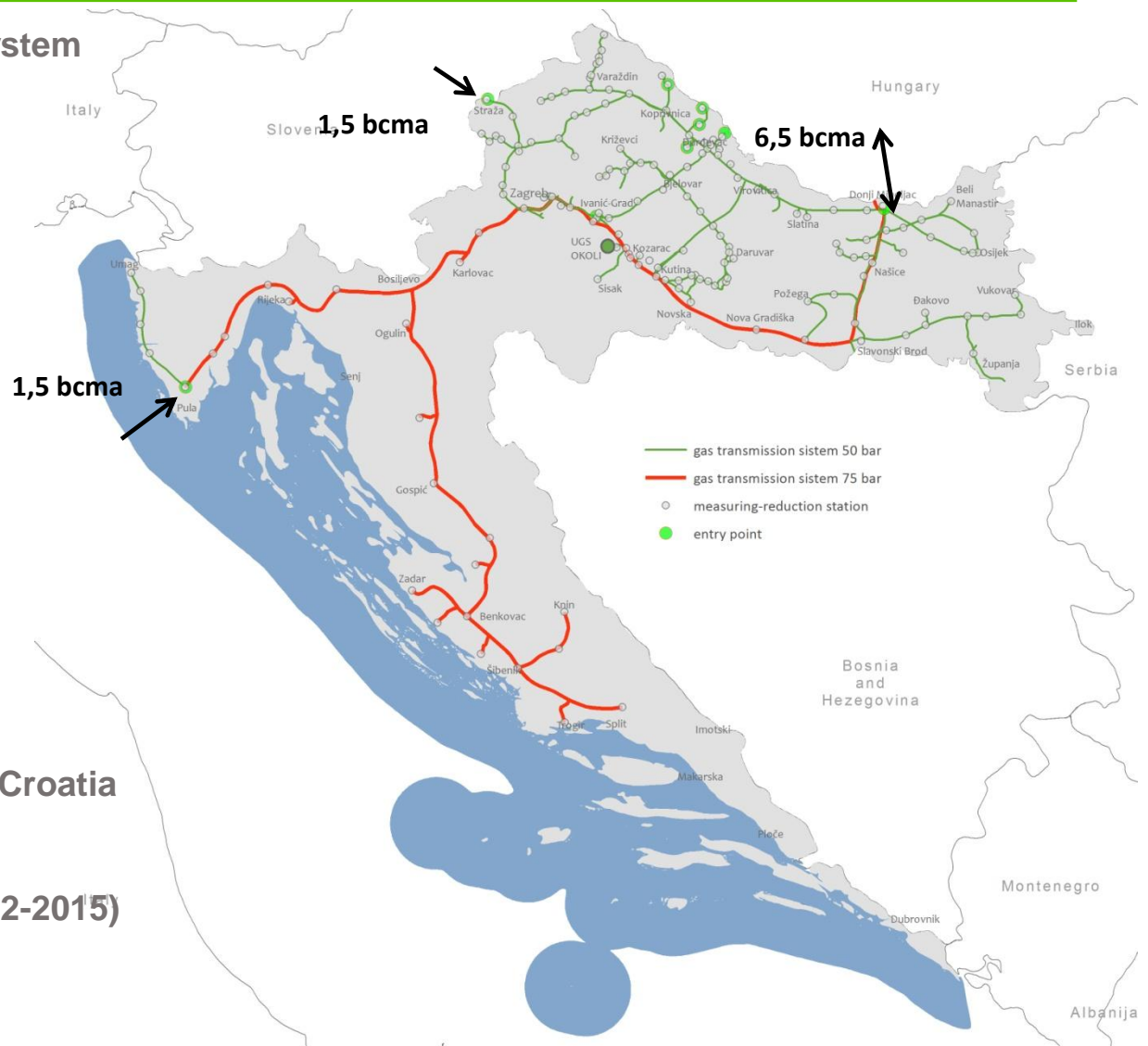
•10 entry points

•172 exit points

•2 interconnections

•95% covering the territory of Croatia

•600 mil EUR investments (2002-2015)



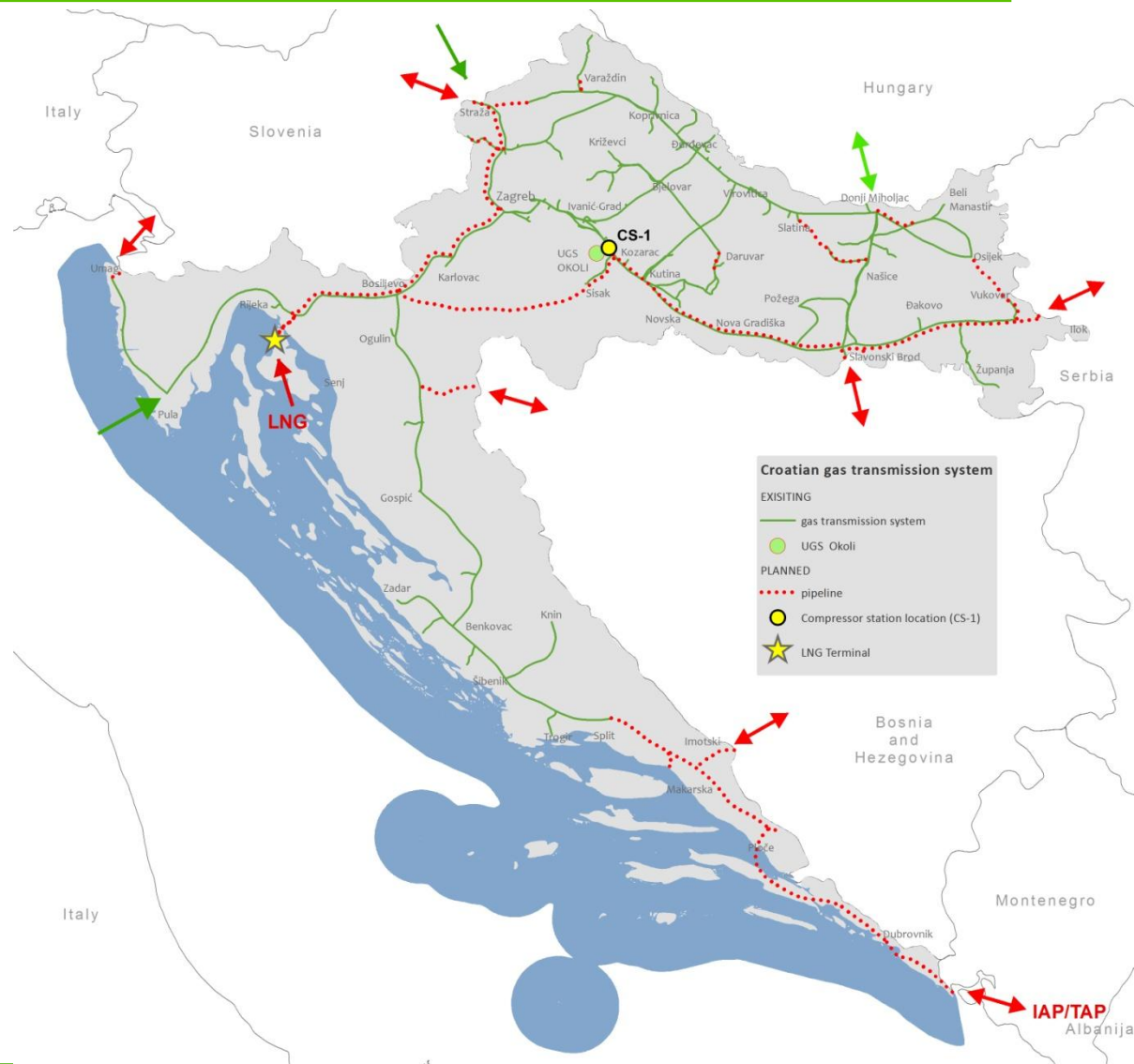
DEVELOPMENT PROJECTS

STRATEGIC PROJECTS

- LNG Project
- Ionian-Adriatic Pipeline (IAP)
- Baltic-Adriatic Gas Corridor
- Compressor Stations

INTERCONNECTIONS

- Bosnia and Herzegovina (3)
- Slovenia (2)
- Serbia (1)



THE GOALS

HIGHLY DEVELOPED NATIONAL GAS TRANSMISSION SYSTEM

DECREASING OF DOMESTIC PRODUCTION

INCREASING IMPORT

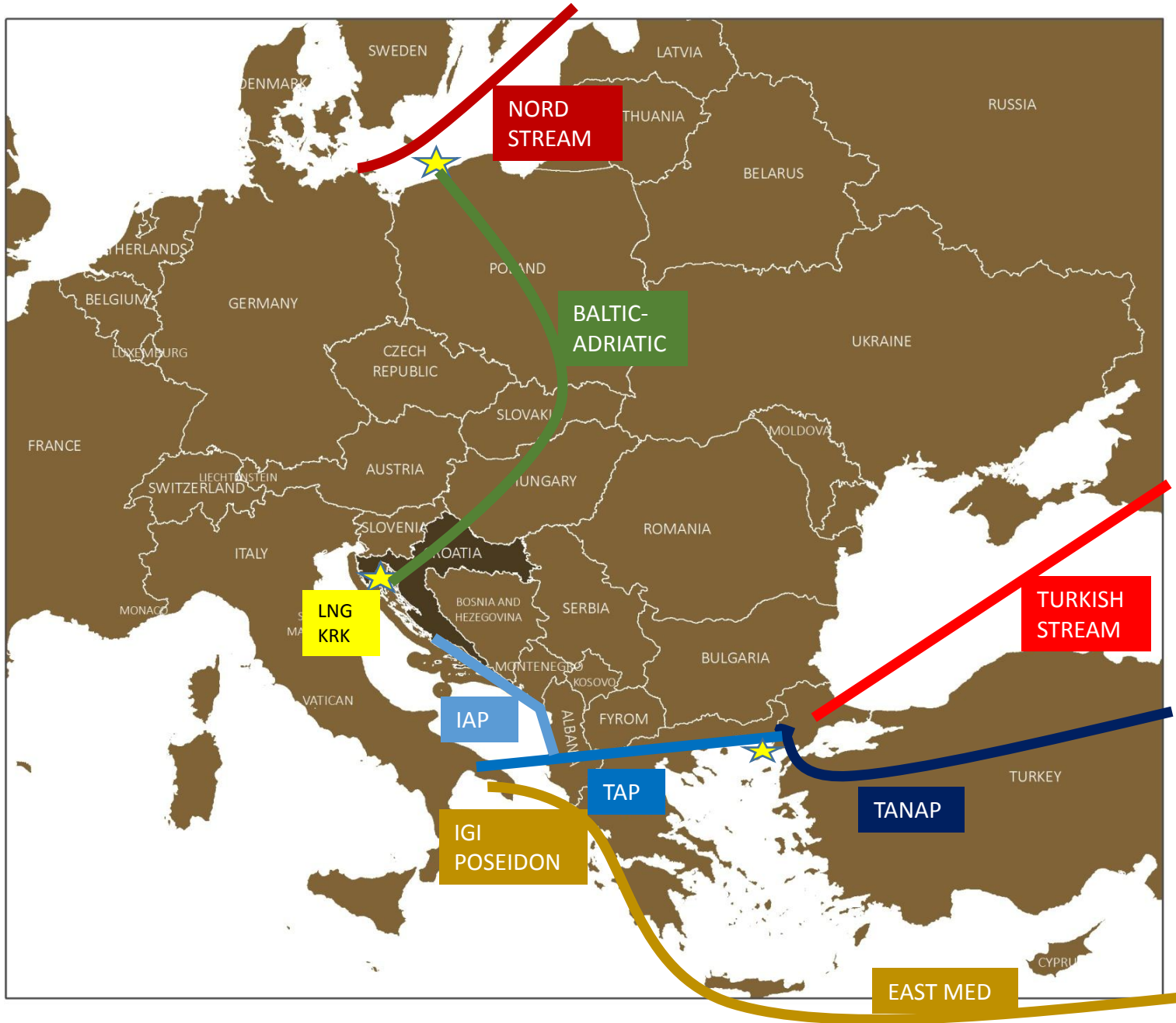


CONNECTING TO THE NEIGHBOURING COUNTRIES AND NEW SUPPLY
ROUTES

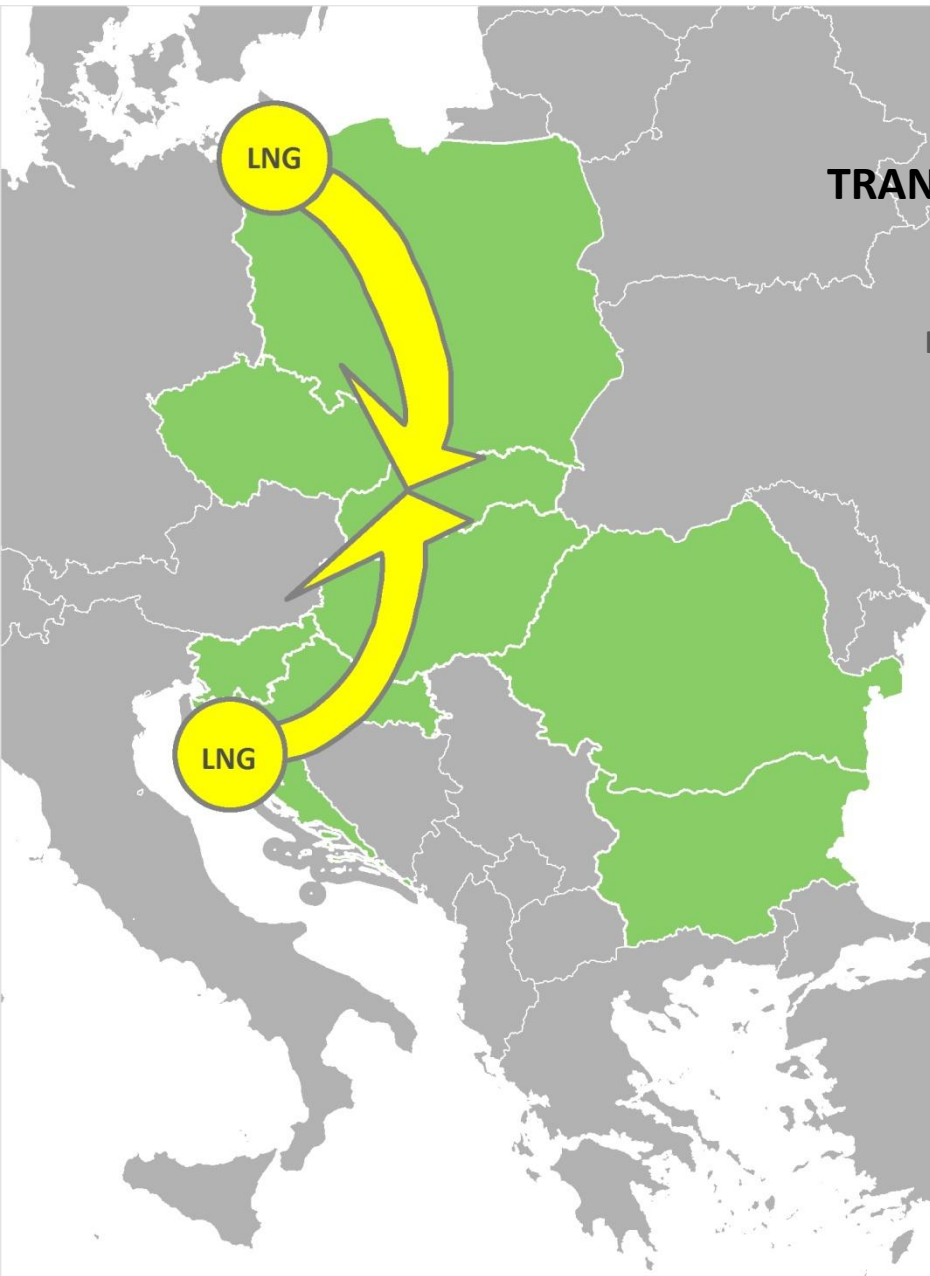
GEOSTRATEGIC POSITION



INTEGRATION TO REGIONAL AND EUROPEAN NATURAL
GAS MARKET



GAS PIPELINE CONNECTION BALTIC-ADRIATIC



TRANSREGIONAL INTEGRATION OF THE MARKET

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



CONNECTION OF THE GAS TRANSMISSION SYSTEMS OF V4+4



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



**SECURITY OF SUPPLY
&
MARKET INTEGRATION**

CROATIAN PROJECTS – PARTS OF THE BALTIC – ADRIATIC GAS CORRIDOR

1. LNG on the island of Krk

LNG Hrvatska – promoter

2. LNG Evacuation Pipelines

Plinacro – promoter

3. CS on the Croatian transmission system

Plinacro – promoter

Ionian – Adriatic Pipeline (IAP) –

A significant influence on the N-S corridor



LNG KRK – aligning the activities

Strategic Project for Croatia, CEE and SEE

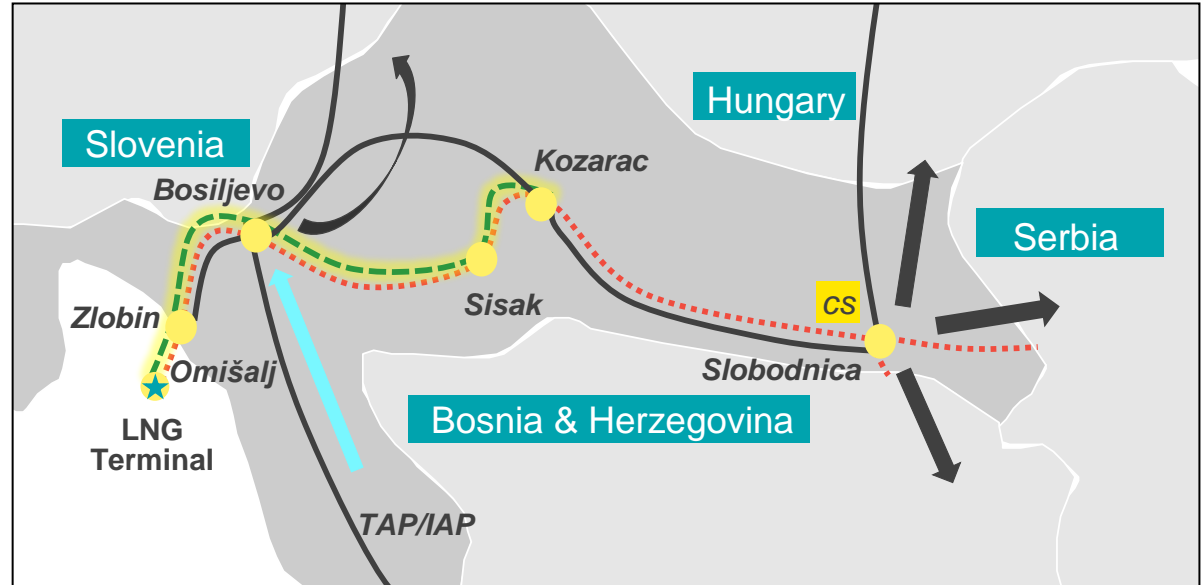
In focus of Plinacro's development plans

Main Drivers

- Security of Supply
- Diversification of Supply
- Competition – Lower prices

LNG Croatia & Plinacro – aligning on each level:

- technical
- commercial
- legal

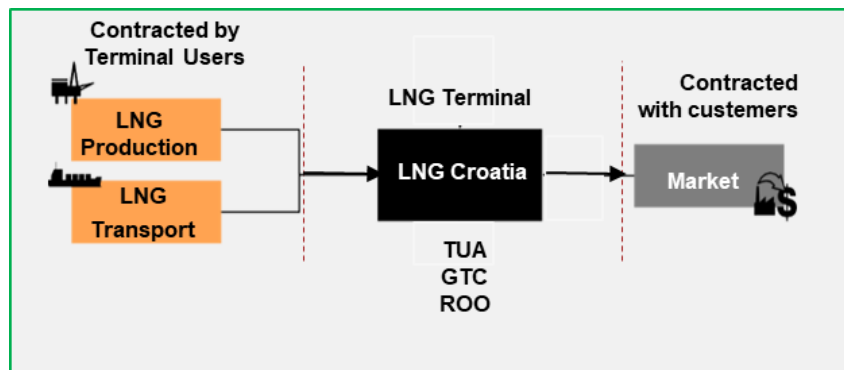


IN PARALLEL CONDUCTING THE PROCEDURE OF OPEN SEASON

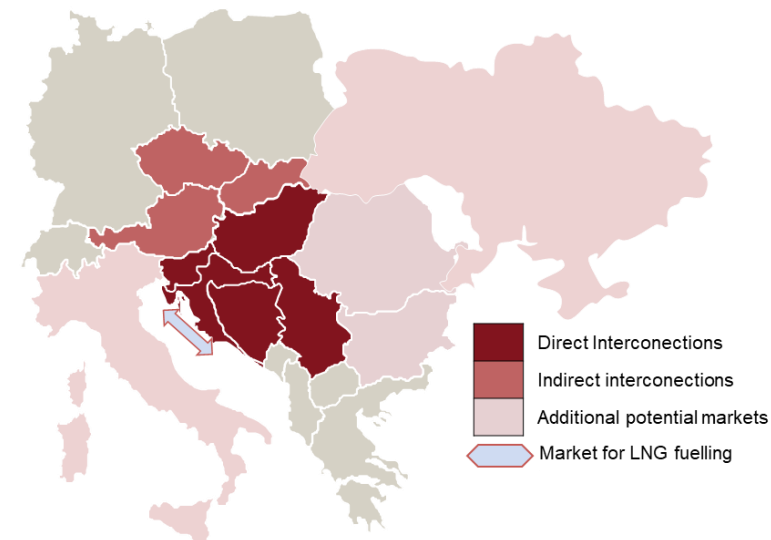
Final configuration/capacities of the new sections of the gas transmission system will depend on the results of the Open season procedure

LNG TERMINAL KRK, OMIŠALJ

- Strategic position of LNG terminal Krk Projekt
 - Declared as Project of Strategic importance by Croatian Government
 - Included in the EU list of Projects of Common Interest – PCI
 - Key infrastructure gas project in the Baltic-Adriatic corridor
 - Included in CESEC action plan
 - Included in European Energy Security Strategy
 - In line with EU and CRO strategic documents
- Project will include the design, building and operating of the infrastructure necessary for receiving, storing and regasification of liquefied natural gas and it will be implemented as a floating LNG terminal - Floating Storage Regasification Unit (FSRU) in the first stage of the project



Targeted markets total demand 38 bcm/y



LNG MAIN EVACUATION PIPELINE

Omišalj-Zlobin-Bosiljevo-Sisak-Kozarac-Slobodnica

- it represents the main delivery gas pipeline for LNG from the island of Krk
- construction in phases/ market needs
- several delivery routes
- Along with LNG there are other sources (IAP, new domestic production) – high level of diversification of supply
- Regional and trans-regional dimensions – a part of gas transmission corridor north – south (Baltic-Adriatic)
- Included in PCI and CESEC priority lists



COMPRESSOR STATION

- Construction of Velika Ludina compressor station (CS1) will provide firm capacity (of limited amount) and bi-directional gas flow at the interconnection with Hungary
- Its construction anticipates connection of 50-bar and 75-bar system – compression of gas from 50-bar into 75-bar system (significantly increased flexibility of capacity management as well as transmission system effectiveness)
- Basis for the evaluation of gas consumption increase
- N-1 security criterion – meeting requirements from Regulation EU 994/2010
- Providing transmission of new quantities from the future LNG terminal
- Opening of gas market as well as possible implementation of the announced projects of constructing the cogeneration plant requires increase of system flexibility



- Compressor station capacity : 39.000 - 201.000 m³/h
- Max power: 4,2 MW
- State of Play: Procurement of equipment

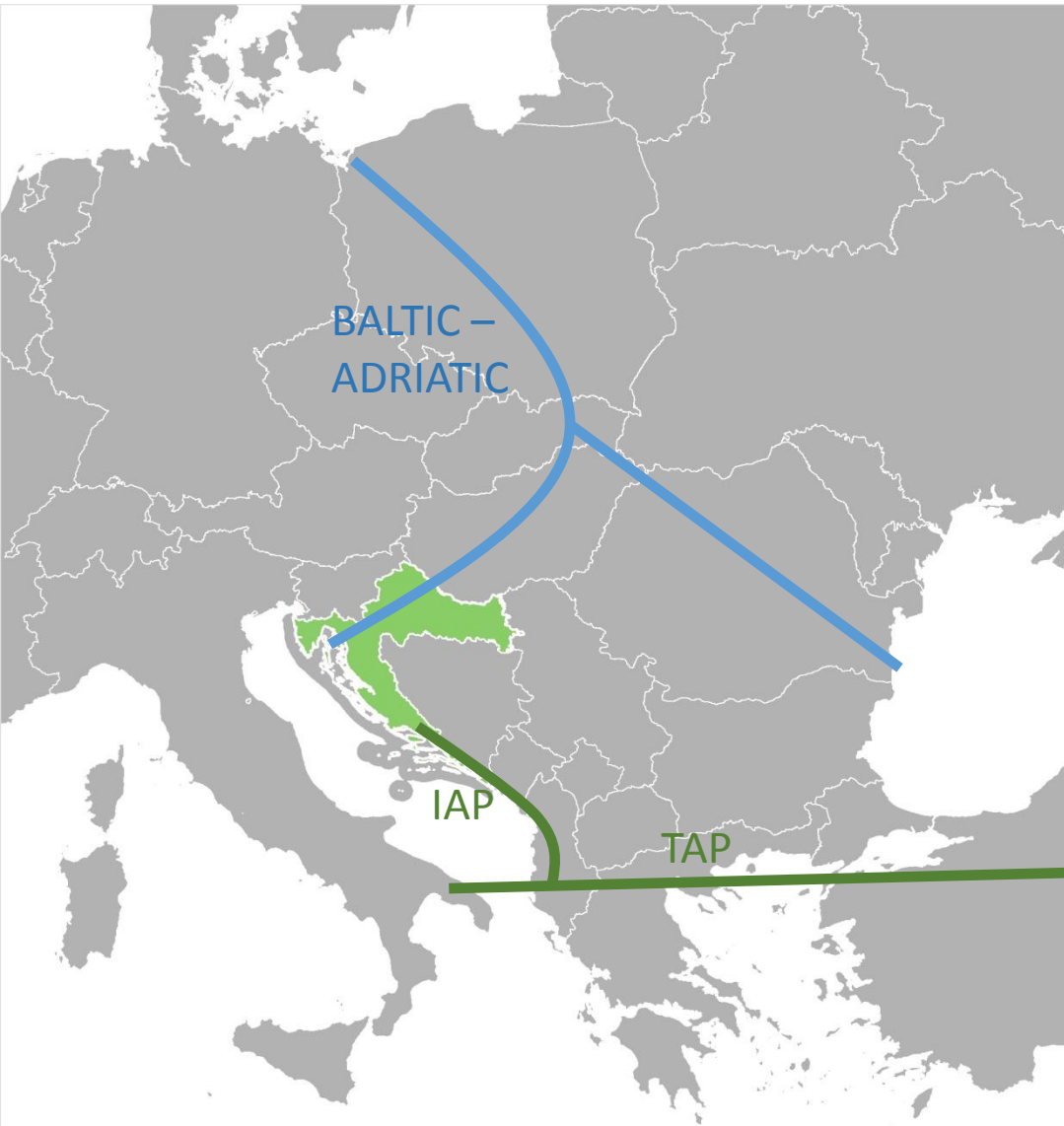


IONIAN ADRIATIC PIPELINE - IAP

- *Connecting Croatian Gas Transmission System with project TAP*
- *New supply source for the region from the Southern Corridor*
- **Security and Diversification of Supply**
- **Possibility of gas transit to the CEE and SEE**
- *Reverse flow*
- *pipeline Split (HR)-Fieri (ALB) DN800 /1000 / 75 bar*
- *L= 511 km, capacity 5 bcma*



CEE MARKET INTEGRATION



V4 (Poland, Czech Republic, Slovakia, Hungary)



V4 + 4 (Croatia, Slovenia, Bulgaria, Romania)



North-South Corridor (Baltic-Adriatic Gas Corridor))



INICIATIVE OF THE THREE SEAS



SECURITY AND DIVERSIFICATION OF SUPPLY FOR CEE AND SEE

**THANK YOU FOR
YOUR ATTENTION!**