



# Integrating SEE and Turkish gas markets Why now? Why at all?

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# Agenda



- 01** Why integrate?
- 02** The negative impact of fragmented markets
- 03** New challenges
- 04** Transformation
- 05** Clearing roadblocks

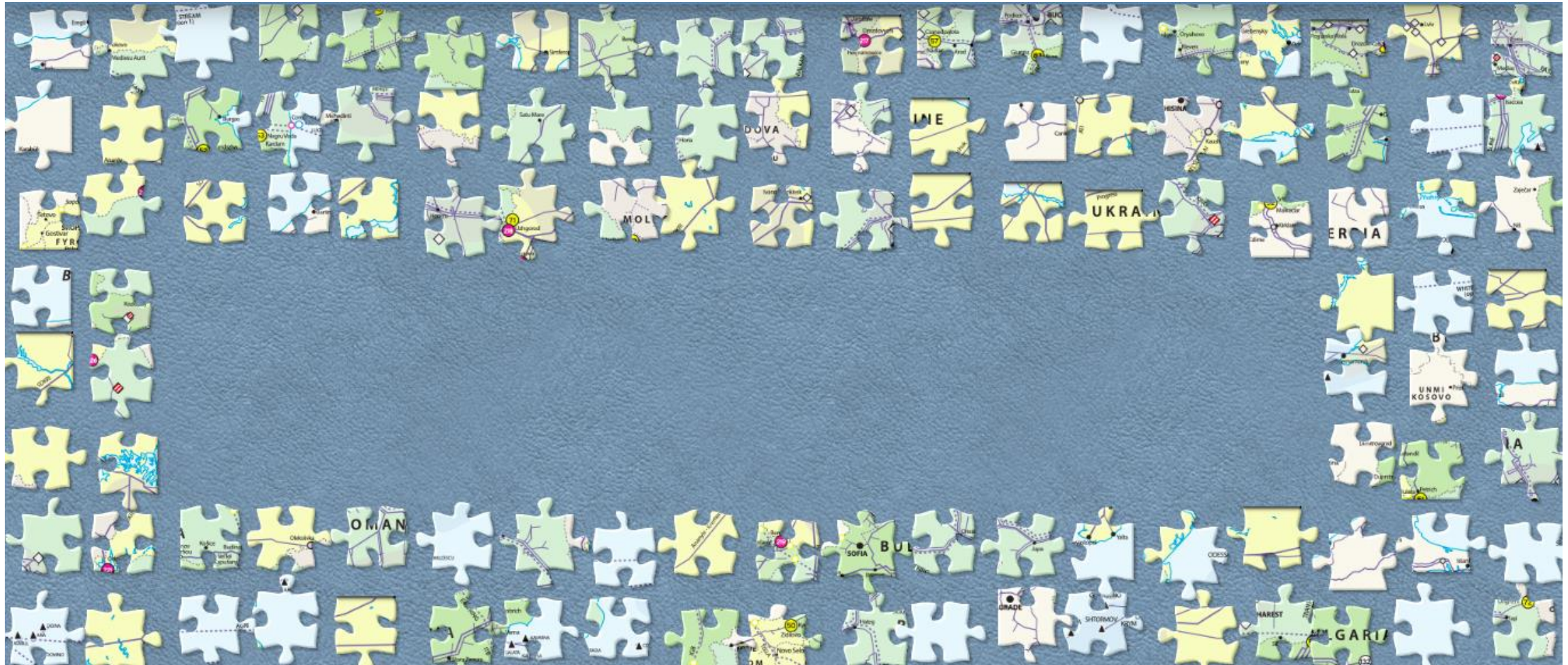


# 1. Why integrate Europe's eastern flank?

1. Tap new sources of supply as the region is undergoing rare and radical transformations
2. Enhance flexibility of supply in case of disruptions
3. Smooth out price differences which made the region one of Europe's most expensive
4. Plug historical (political) vulnerabilities caused by market fragmentation
5. Attract investors



## 2. Disjointed markets have led to...



Source: ENTSOG, Jigsaw Explorer



# Supply risks and...



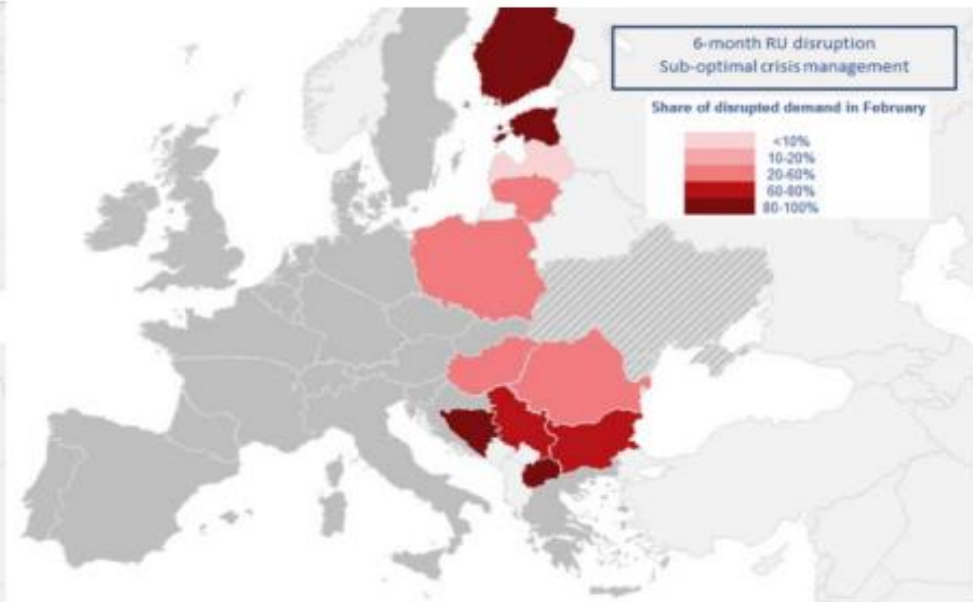
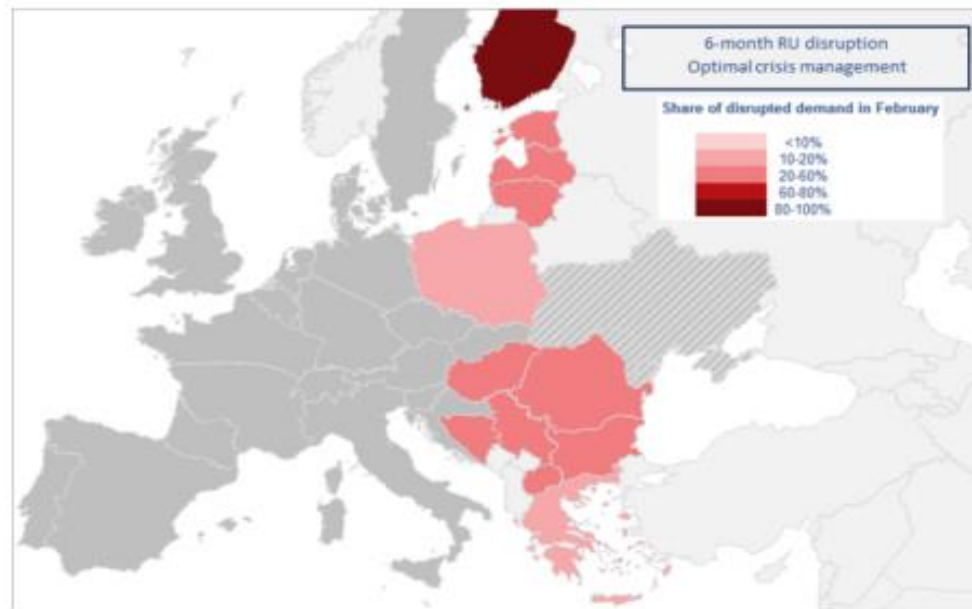
A prolonged supply disruption of the Ukraine transmission route and a fortiori of all Russian gas supplies to the EU will have a substantial impact in the EU, with the Eastern EU member states and the Energy Community countries being affected most.



Likely supply interruptions in February 2014 at the end of a six-month Russian supply disruption scenario under average winter conditions

*Cooperative Scenario*

*Non-cooperative scenario*



Source: ENTSOG

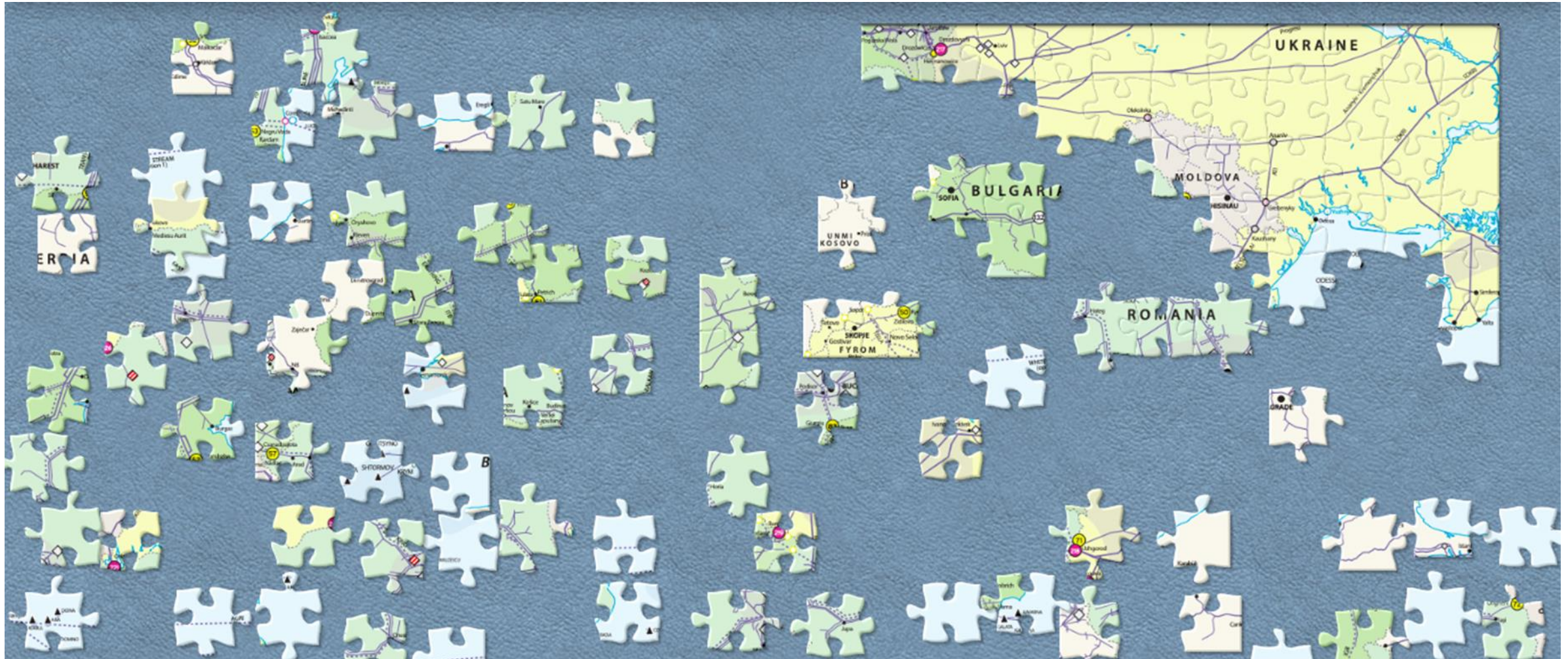


...higher prices



Source: Bulgartransgaz, BOTAS, ICIS

# 3. New challenges



Source: ENTSOG, Jigsaw Explorer

# The region's new challenges



## Gaining/retaining transit revenue

- Bulgaria
- Hungary
- Moldova
- Poland
- Romania
- Turkey
- Ukraine

## Switching from coal to natural gas

- Bulgaria
- Greece
- Hungary
- Moldova
- N. Macedonia
- Poland
- Romania
- Turkey
- Ukraine

## Tapping new sources of supply (LNG and non-Russian gas)

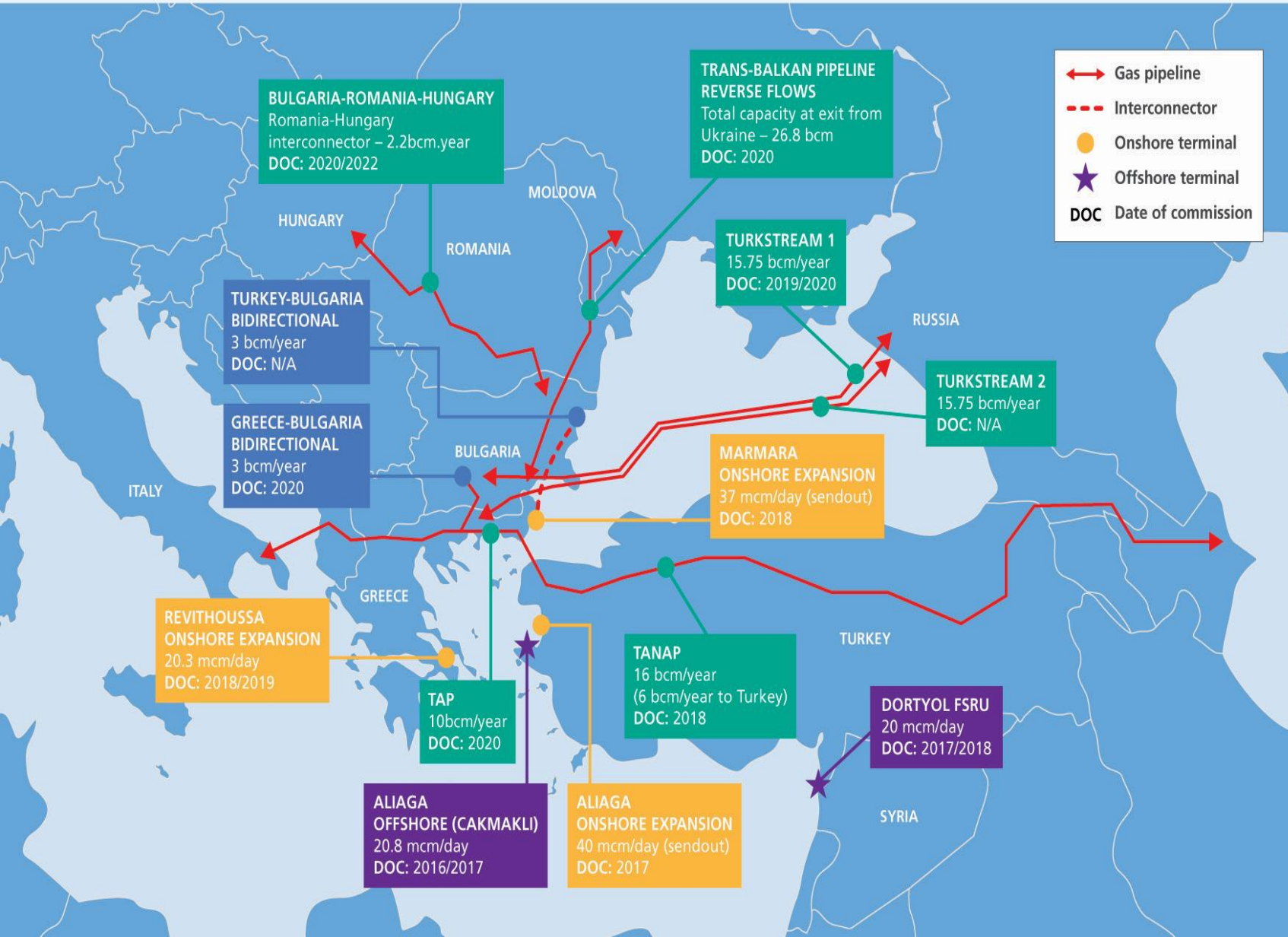
- Bulgaria
- Hungary
- Moldova
- N. Macedonia
- Romania
- Ukraine

## Accessing (Ukrainian) storages

- Bulgaria
- Greece
- Hungary
- N. Macedonia
- Poland
- Romania
- (Turkey?)



# ICIS GAS PIPELINE PROJECTS IN SEE AND TURKEY



A region in full change

## 5 LNG

Terminals in Turkey and Greece

## 3 SUPPLY

Corridors and numerous regional interconnection points allowing bidirectional flows

# Transitioning from coal to natural gas

- In 2019, coal and lignite-fired power plants stood at 33% - the highest share - of Turkey's total installed capacity of 85GW.
- Bulgaria, Greece and Romania are considered some of the most polluting countries in the EU because of their reliance on coal-fired generation. In 2020, the total share of fossil fuels in Bulgaria's energy mix stood at 37% and at 40% in Greece and Romania's.
- The share of fossil fuels in the overall mix of Bulgaria, Greece and Romania is expected to drop to an average 25% in 2030.
- However, although much of of coal and lignite-fired capacity will be mothballed by 2030, gas-fired capacity will increase, reaching an estimated 6.5GW for Bulgaria, Greece and Romania. Greece is likely to phase out coal completely.
- As more gas-fired capacity is built at least another 5billion cubic metres (bcm) of natural gas may be needed regionally per year.



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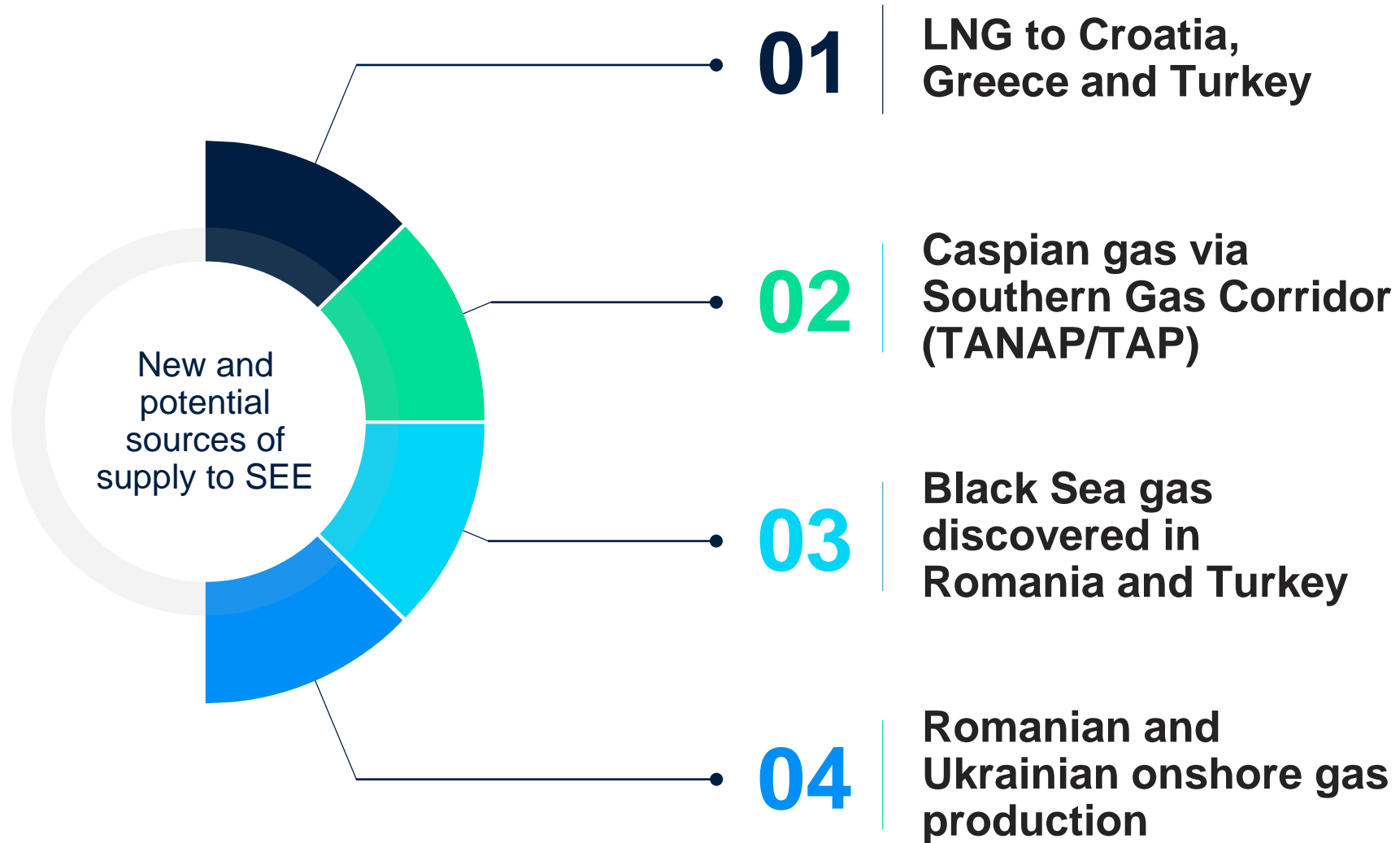
# 38%

Of southeast Europe and  
Turkey's electricity  
generated from fossil fuels  
in 2020

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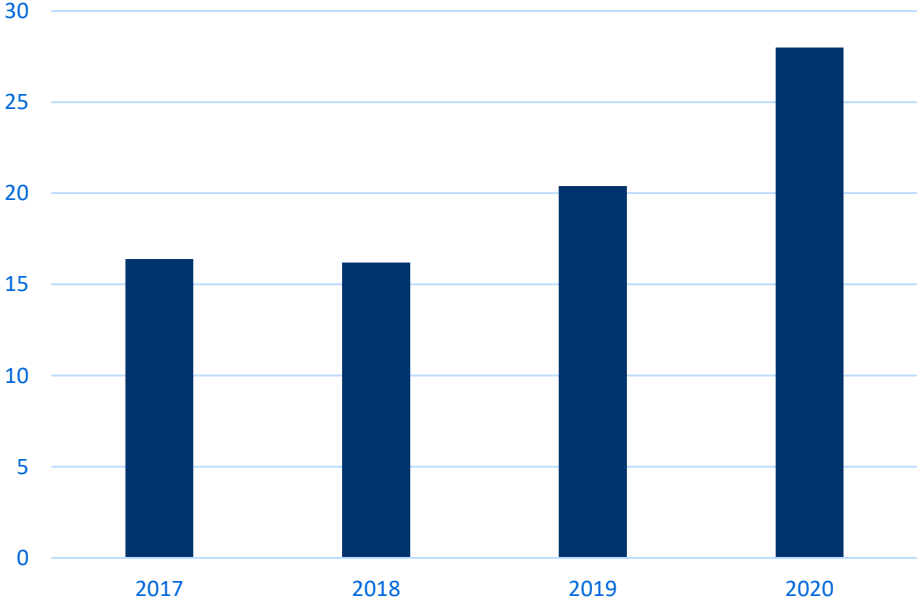
# Non-Russian gas supplies





# The growing importance of Ukraine as a storage hub

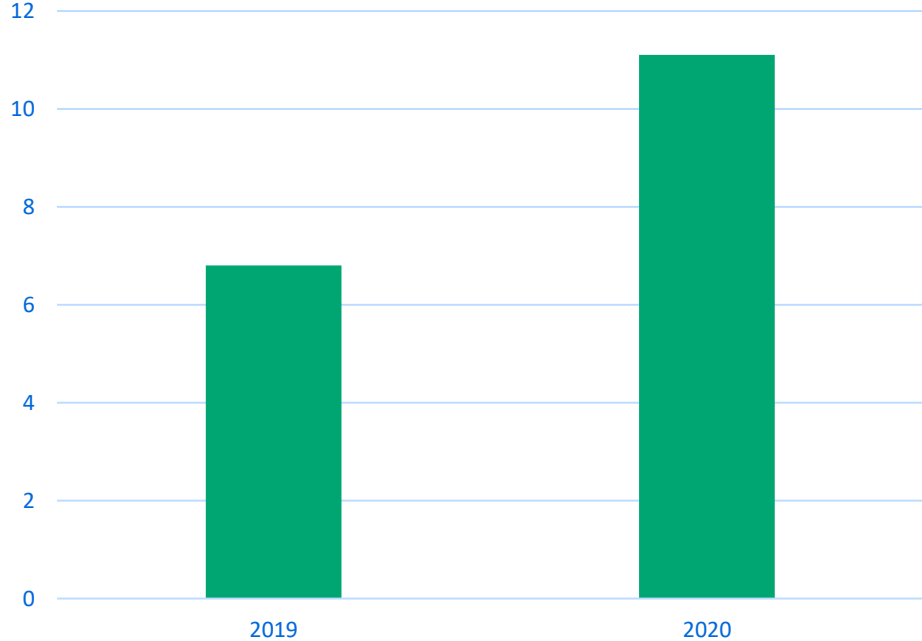
Natural gas stored in Ukrainian facilities (in billion cubic metres)



# 297%

Increase in volumes stored in customs warehouse regime between 2017 - 2020

Natural gas stored in customs warehouse regime (in billion cubic metres)



Number of non-resident companies storing gas in Ukraine

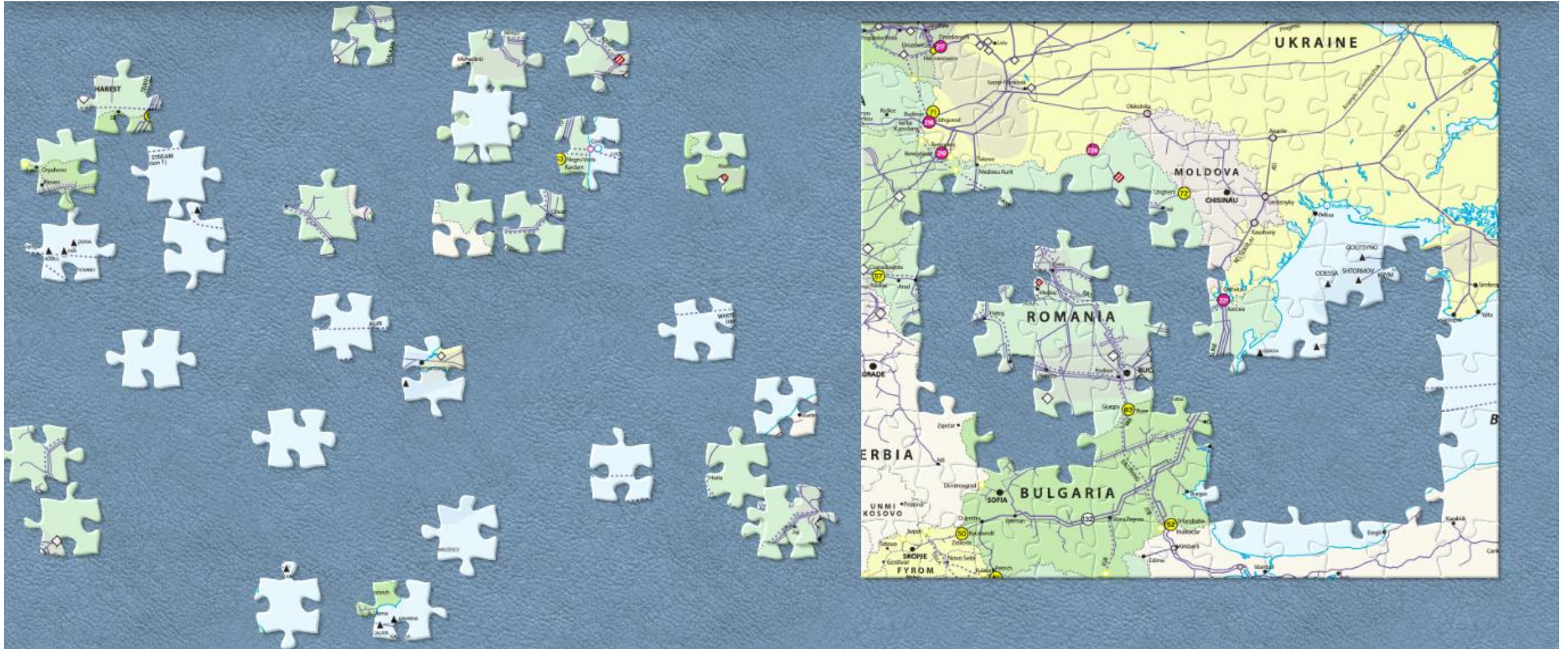
2018	7
2019	47
2020	81

Number of resident companies storing gas in Ukraine

439
651
711

Source: UTG

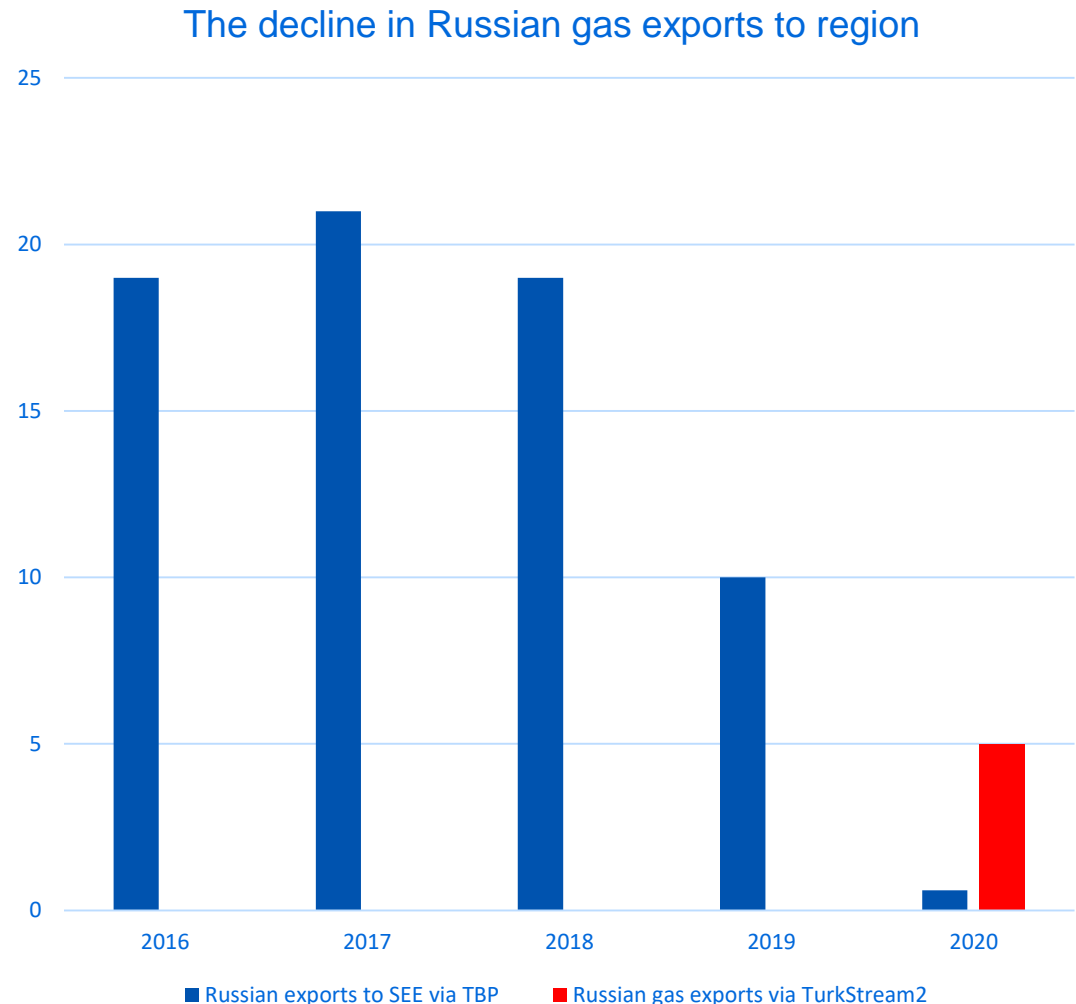
# 4. Transformations



Source: ENTSOG, Jigsaw Explorer

# As Russian pipeline gas has been losing market share in southeast Europe and Turkey...

- Russia has been transiting gas to Moldova, Romania, Bulgaria, Turkey, Greece and the Republic of North Macedonia via the Trans-Balkan pipeline (TBP) until the end of the last year.
- Since January 2020, Russia's Gazprom diverted exports from the Trans-Balkan pipeline to the newly-built TurkStream1 and 2, which link Russia to Turkey via the Black Sea. TurkStream 1 supplies Turkey and TurkStream 2 delivers gas to Bulgaria, Greece, North Macedonia and could supply gas in reverse direction to Romania, Moldova and Ukraine



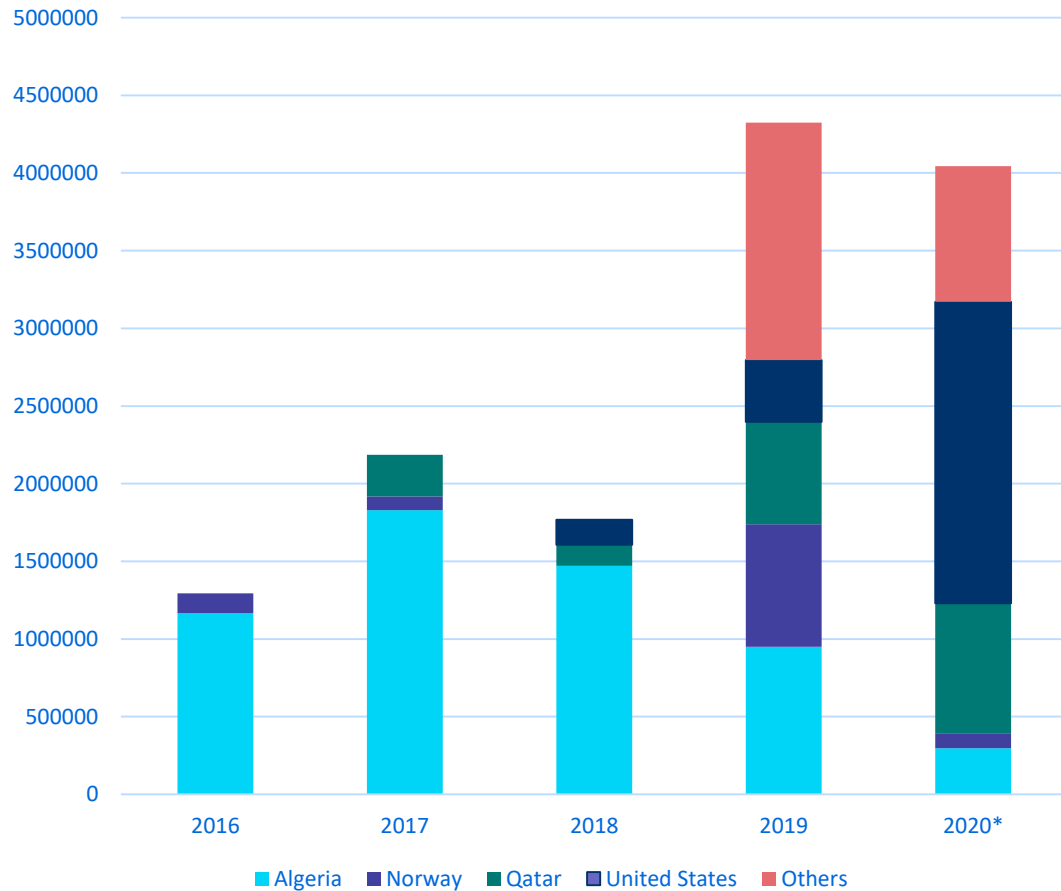
Source: Transgaz, ENTSOG. Data calculated in billion cubic metres.

2020 – Up to 13<sup>th</sup> November 2020

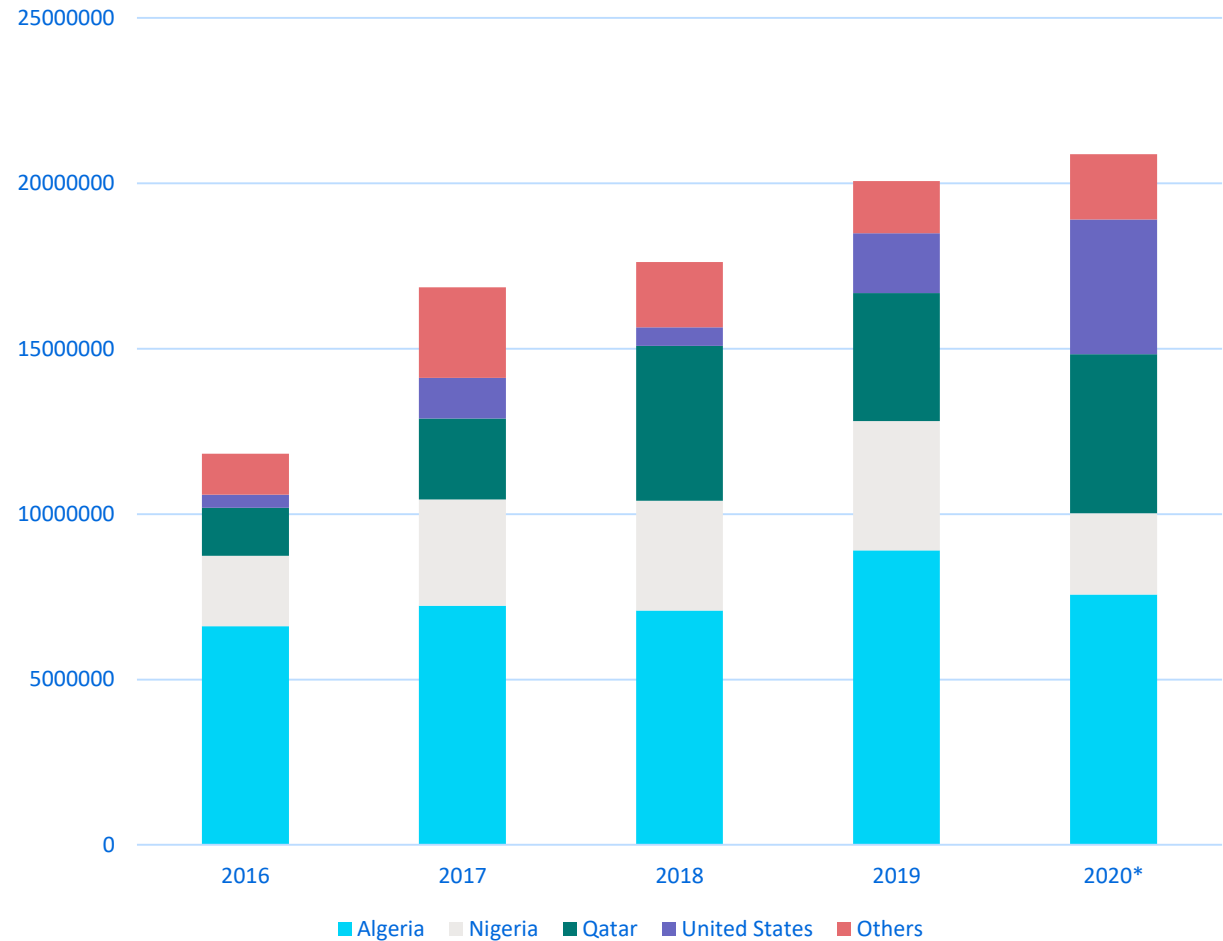


# ... LNG suppliers have become more active regionally

## LNG supplies to Greece



## LNG supplies to Turkey



Source: ICIS LNG Edge  
Data calculated in LNG cubic meters

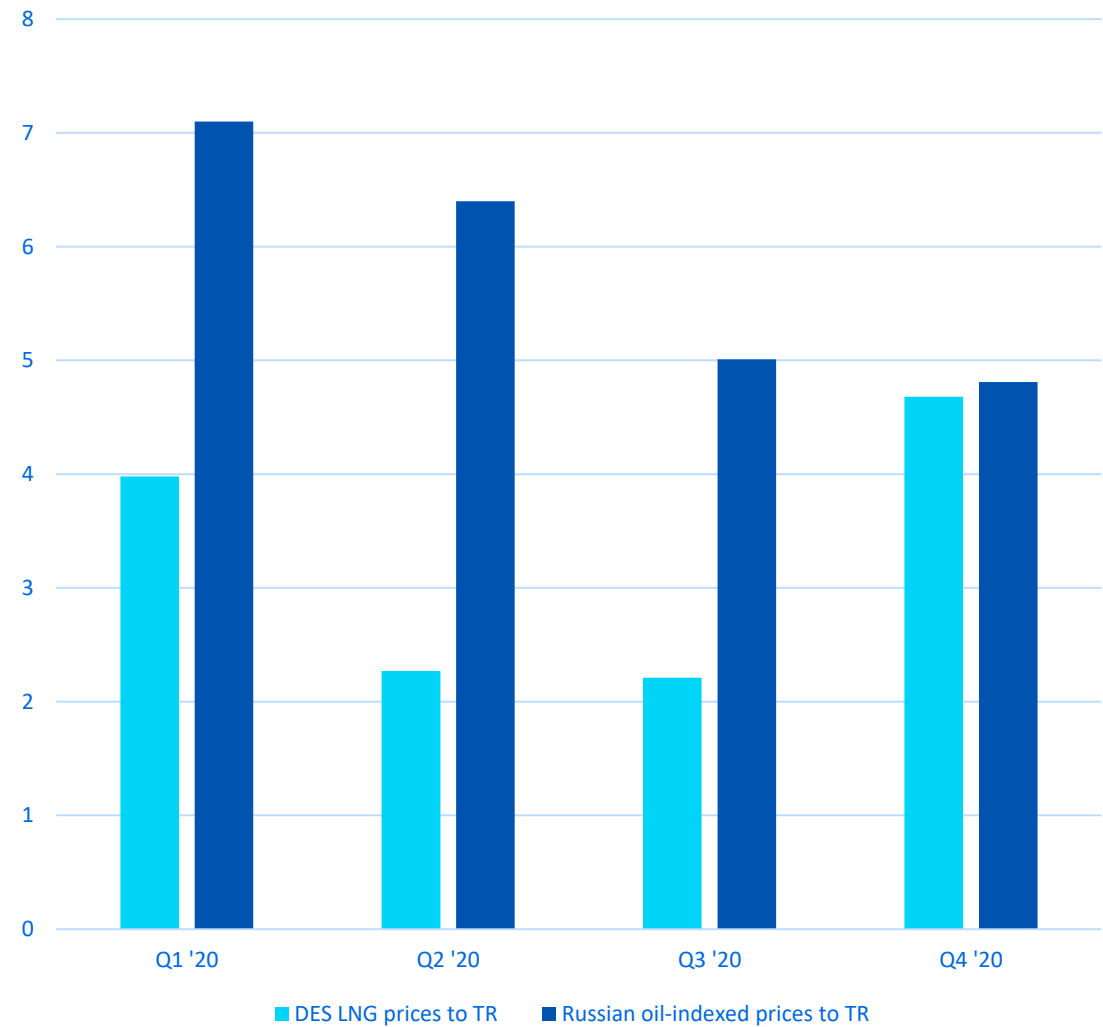
One vessel of 150,000 LNG cubic meters equals 90 million cubic meters or 3 billion cubic feet pipeline gas. In Million British Thermal Units (MMBTu) this amounts to 3 million MMBTu.

2020 – up to 13th November 2020

# The effect of falling LNG prices

- Although two new gas corridors are opening up regionally – TurkStream and the Southern Gas Corridor, which is designed to bring Caspian gas to Turkey and southern-Europe – Turkey and Greece have been increasing their LNG imports in 2019 and 2020
- Both countries have taken advantage of falling global LNG prices which throughout most of 2020 have been at a significant discount to oil-indexed prices for pipeline imports from Russia and Iran, but also to LNG off-takes from Algeria, Nigeria, which have long-term supply contracts with the Turkish state company, BOTAS.

Comparison of ICIS spot LNG and reported Russian oil-indexed gas prices to Turkey in 2020



Source: ICIS. Prices calculated in \$/MMBTu



# 5. Clearing roadblocks



Source: ENTSOG, Jigsaw Explorer



# A long way to SEEGAS?

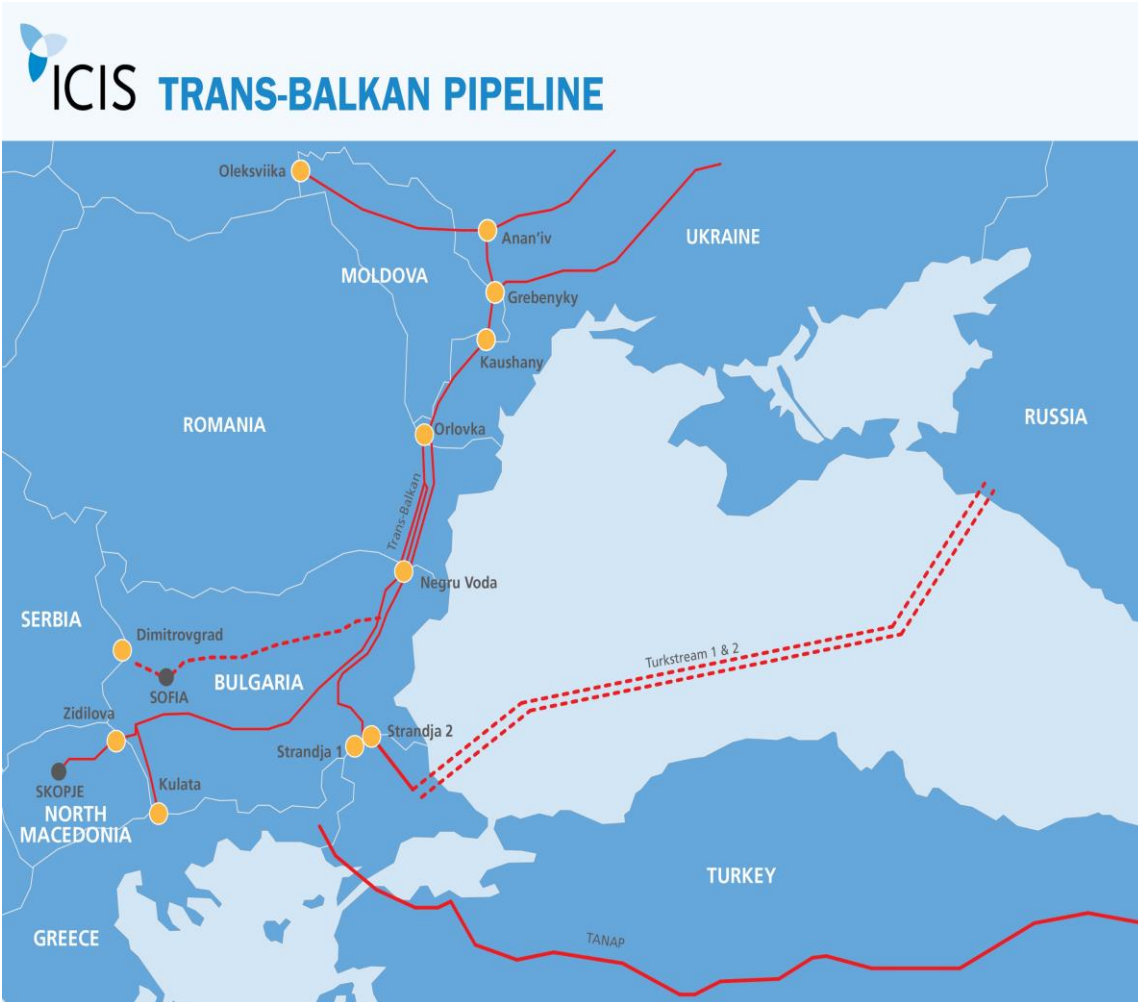
## Infrastructure-related roadblocks

- Congestion (BG for ex.)
- Small capacities offered (BG-TR, RO-BG, UA-RO)
- Lack of interconnection agreements (TR-GR, TR-BG, RO-BG, RO-UA, RO-MD)
- High tariffs (MD)
- Concerns over methane content (RO, HU)
- No alignment of rules at EU/EnCom borders (UA-RO, UA-SK, TR-GR, TR-BG, GR-NM, BG-NM).

## Market-related roadblocks

- Regulated markets (BG, GR, MD, TR)
- Low liquidity (All)
- Lack of financial instruments (All)
- Bureaucracy (All)
- Political, regulatory risk (All)

# Integration of infrastructure – the importance of the Trans-Balkan pipeline

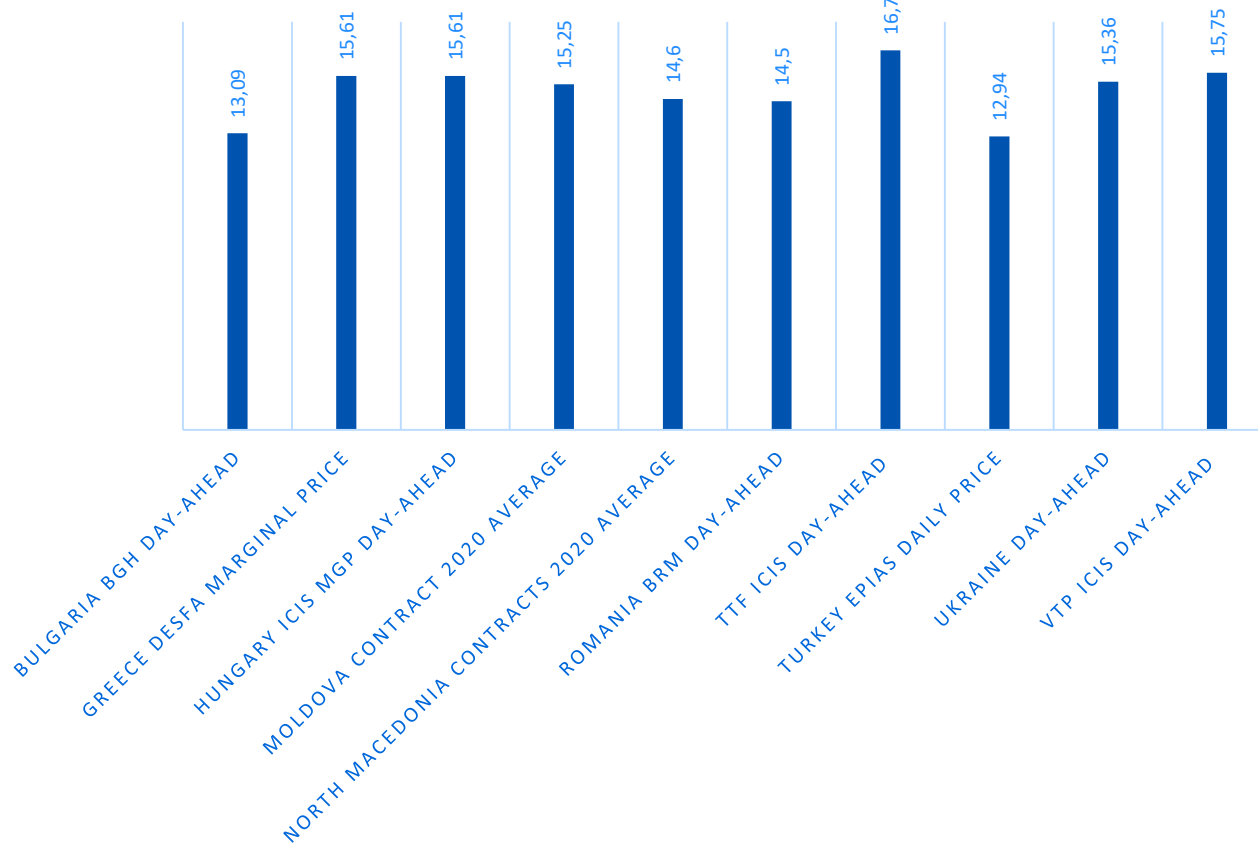


- The Trans-Balkan pipeline can help integrate the entire SEE-Turkey region, having an annual capacity close to 30 billion cubic metres and now allows bidirectional flows
- As a historical transit route, its costs have been amortised and could, in theory, allow companies to ship gas at tariffs that may be cheaper than those charged on newer interconnectors
- Its proximity to the Black Sea and Greek and Turkish LNG ports could make it the ideal shipping route for new offshore volumes in Romania and Turkey as well as LNG imported in Greece and Turkey

# Integration of markets – the importance of shared rules



A SNAPSHOT OF REGIONAL GAS PRICES ON 14.12.2020  
IN €/MWH



1. Lifting trade barriers
2. Harmonising rules at border points between EU member states and EU-EnCom countries
3. Minimising bureaucratic requirements
4. Introducing regionally-accepted trading instruments to help reduce risk and create flexibility
5. Publish updated transparent market information in local language and another widely spoken language (English for ex).

## Some takeaway points:



- Energy markets on Europe's eastern flank are undergoing rare and radical transformations
- To take advantage of the changes, they need to think much bigger, seeking ways to integrate regionally
- This would involve integrating both infrastructure and markets
- There are still multiple roadblocks which need to be cleared
- To succeed, SEEGAS does not necessarily require more supplies or diversity of routes (which are already there) but a well-defined vision and commitment from all countries. Easier said than done?



# Thank you!

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