



Trans Adriatic
Pipeline

TAP: connecting the dots in Southeast Europe

Why is TAP strategic across Europe, and essential in the SEE?

How can TAP – the European leg of the Southern Gas Corridor – contribute to closing the gap in the region?

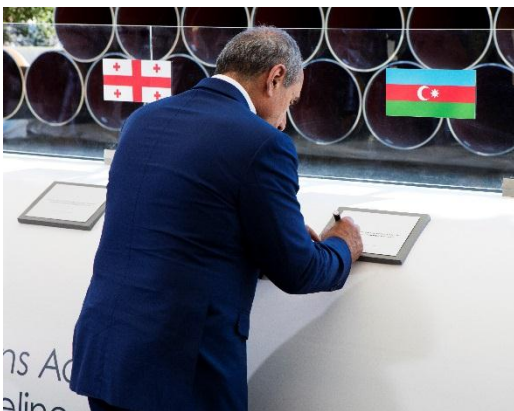
Giuseppe Macri
ETCSEE2016
Bucharest

Construction Inauguration Ceremony

17 May 2016, Thessaloniki, Greece



- TAP marked the start of construction under the auspices of Alexis Tsipras, Prime Minister of the Hellenic Republic
- Presence of high-level dignitaries from over 10 countries and the European Union.
- Shareholders from BP, SOCAR, Snam, Fluxys, Enagás and Axpo and over 500 high-level guests attended the event.

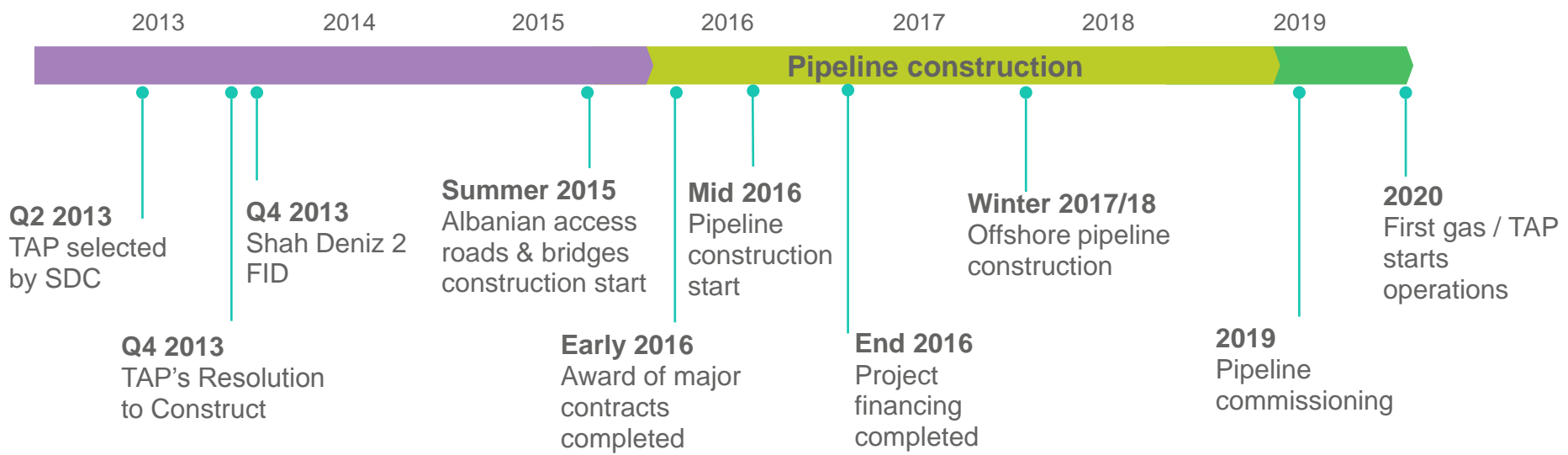


What's next for TAP?

Milestones of a successful project

“We can confirm the decision of the Shah Deniz Consortium to select TAP as the preferred transportation option for gas volumes from the Shah Deniz stage 2 project through the Southern Gas Corridor to customers in Greece, Italy and Southern Europe.”

Shah Deniz Consortium
28 June 2013



Southern Gas Corridor (SGC)

Complete Value Chain - investment of approx. USD 45 bln

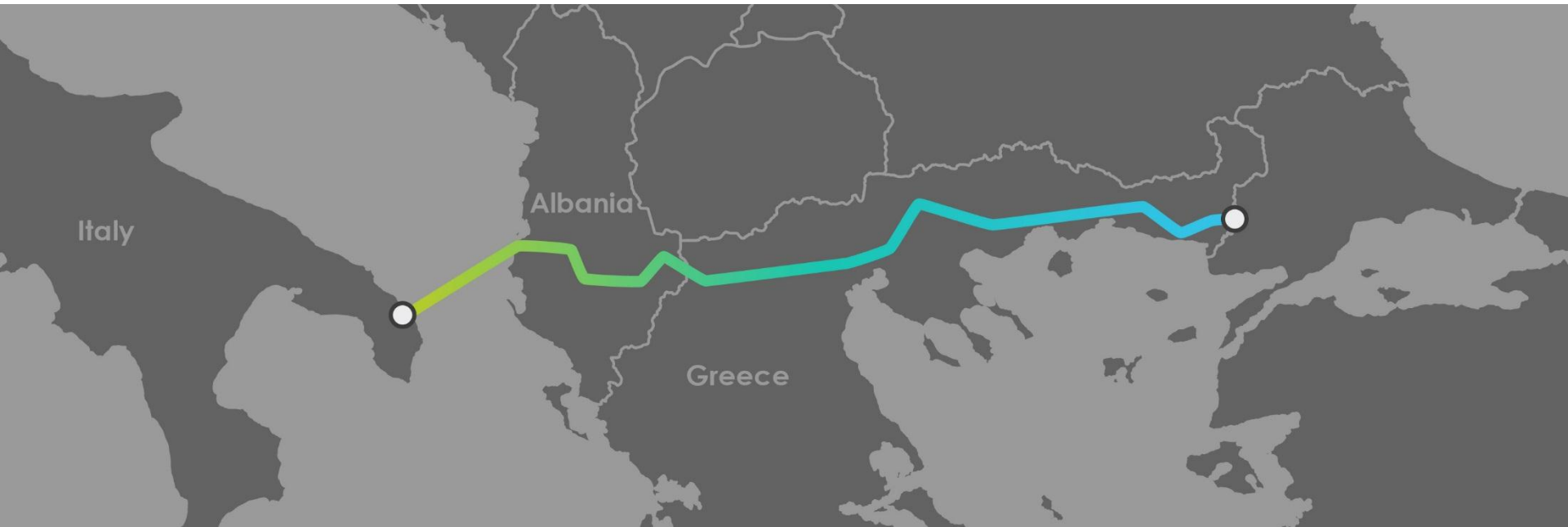


1. Drilling of wells
2. Offshore production
3. Onshore processing Sangachal Terminal
4. SCP
5. TANAP
6. TAP
7. Expansion of Italian network (SRG)
8. Further transport to western Europe

Crossing six countries – 3,500 km; nine energy companies involved

TAP's Key Features

Supports EU's energy policy objectives



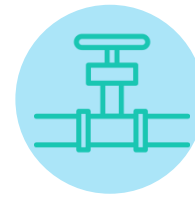
Facilitating interconnections with several markets



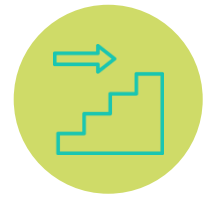
878 km
105 km offshore



48" onshore
36" offshore



Built-in physical reverse flow for emergency situations



Can expand from 10 to 20bcm/a



Facilitating Connections in South East Europe and beyond...



TAP can contribute to overcoming the SEE region's energy challenges



Enhanced security of supply

Diversification of gas sources and transit routes

Significant **physical reverse flow** and **enhanced flexibility**



Spur regional investment

Stimulates **additional investment** in gas infrastructure

Promotes **market development**



Stronger market integration

Supports physical **interconnections** and **market integration**

Alignment between **EU's and region's regulations**

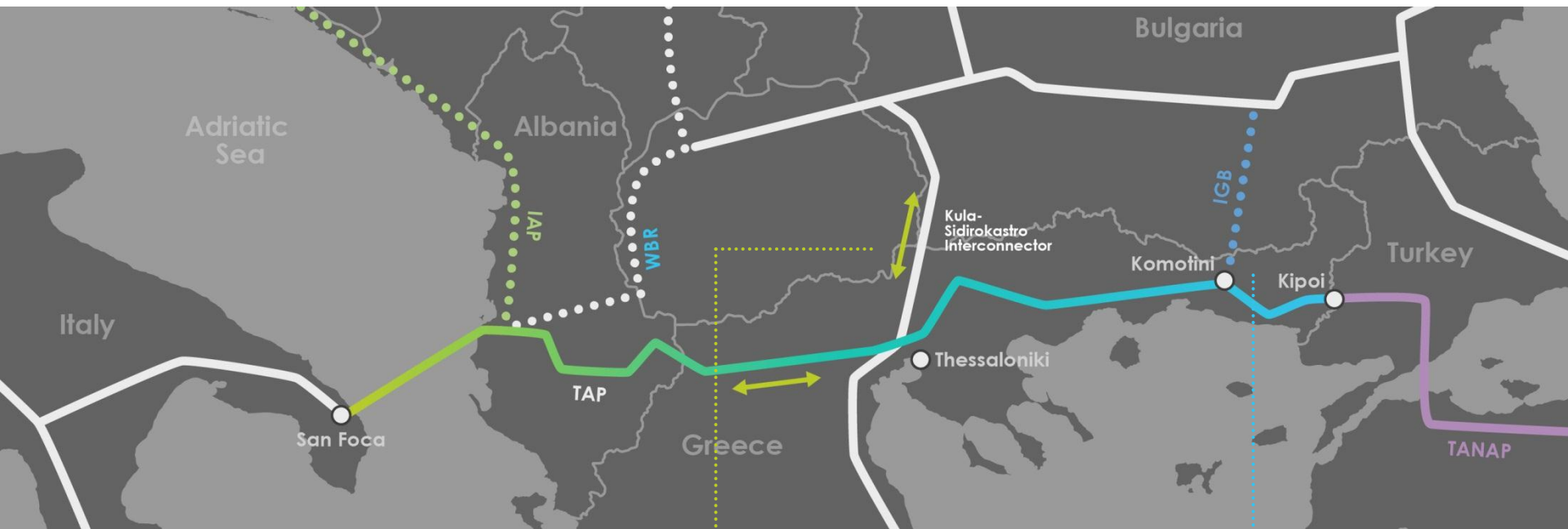


Cleaner source of energy

Contributes to **reducing carbon emissions** and achieving environmental targets

Connection to Bulgaria

TAP can provide Bulgaria with a new source of gas through existing and planned infrastructure



Reverse flow on Kula/Sidirokastro

Interconnection point exporting Russian gas from Bulgaria into Greece.

Existing capacity (Bulgaria-to-Greece direction): 4.3 bcm/y at a minimum pressure at Sidirokastro MS of 47,74 barg.

Reverse Flow capacity: up to 4.3 bcm/y

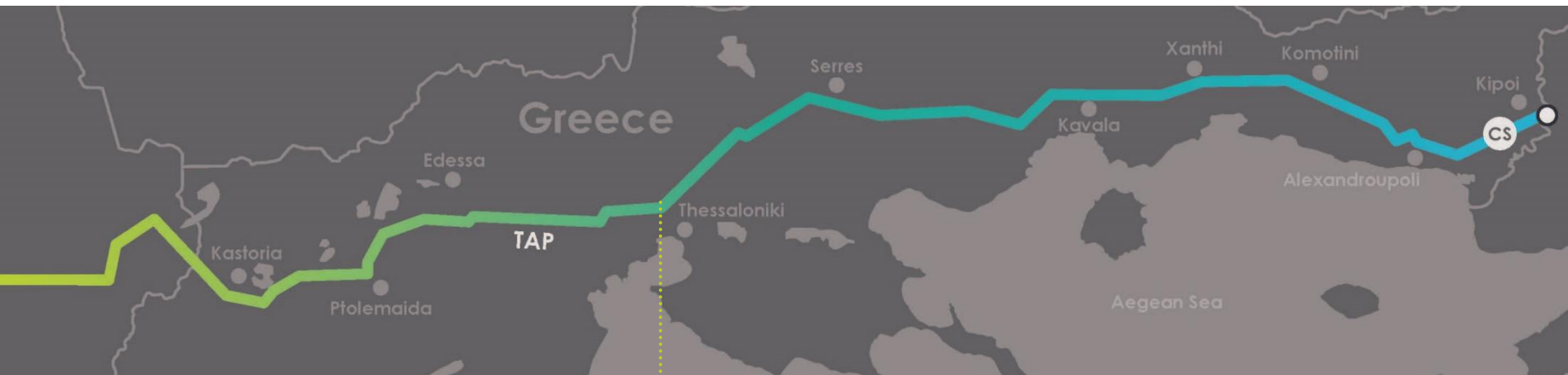
IGB

IGB – is designed to connect Greece (Komotini) to Bulgaria (Stara Zagora). MoU with IGB signed in January 2014.

Planned Capacity: up to 3 bcm/y (option for capacity increase to 5 bcm/y)

Connection to Greece

TAP will increase the liquidity of the Greek Market, connecting to the DESFA Network at the Nea Mesimvria Interconnection Point (IP)



The bi-directional IP in Nea Mesimvria will:

- Enable new supply sources to Greece (physical and commercial reverse flow)
- Open the route to Italy for gas entering the Greek network

Cooperation with Western Balkans

TAP cooperates with developers of IAP project

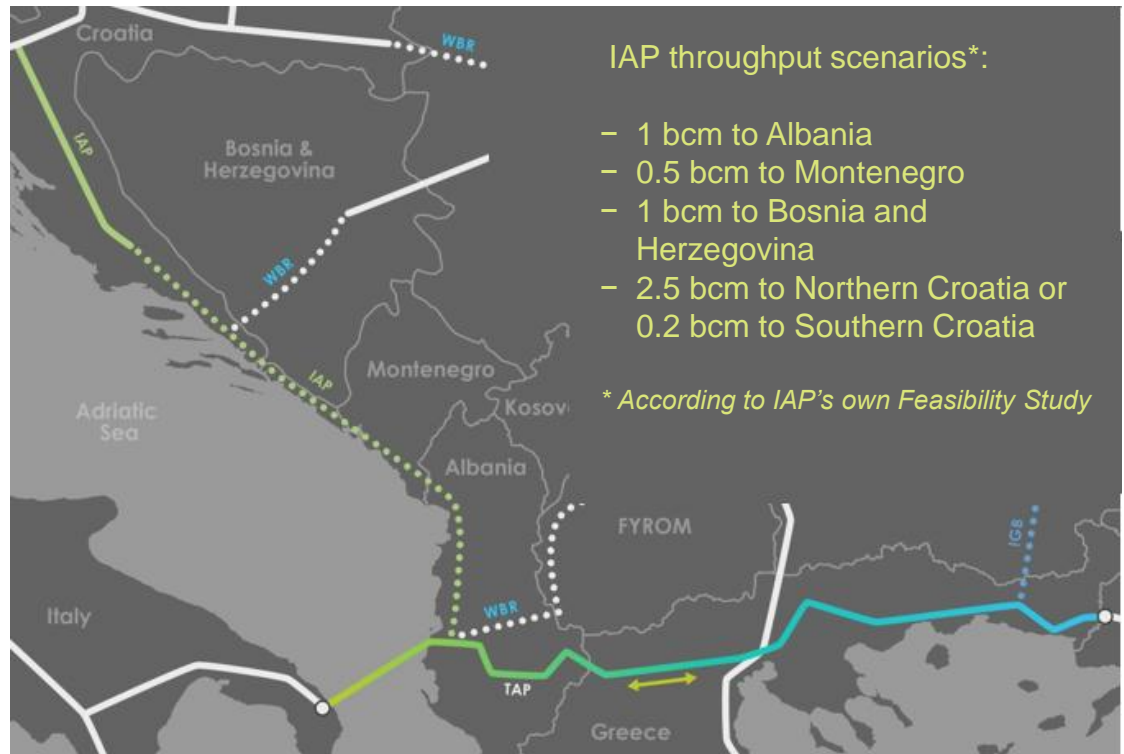
Ionian Adriatic Pipeline (IAP)

- Independently developed by Plinacro, BH-gas, Ministries of Energy of Albania and Montenegro
- 5bcm/a bi-directional pipeline
- Connects ungasified markets

Activities in Albania

Support the Albanian Government in the Development of a domestic gas market plan (GMP)

Foreseen an Exit Point in Kuçovë



TAP Network Code

EU Regulations Alignment

TAP is currently **developing** its **Network Code**, defining the rules and procedures for the pipeline commercial operations

TAP aligns with the EU regulatory framework on gas transportation, to **facilitate shippers' access** to TAP transportation services

For this purpose, **regular consultation** sessions are held with the **National Regularity Authorities (NRAs)** of Greece, Albania and Italy. The NRAs will approve the Network Code before the start of operations



TAP Network Code

What will TAP offer to the gas market by 2020?

TAP aims not only to safely deliver Caspian gas to Europe, but also to actively support the creation of a liquid and flexible market in SEE. Therefore, TAP will offer to its Shippers:

- A Virtual Trading Point, allowing Shippers to bilaterally trade gas
- Possibility to book the Capacity Products foreseen by the CAM Network Code
- Commercial Reverse Flow capacity to reach Albania and Greece from Italy
- Secondary market to buy and sell capacity products
- Continuous renominations cycle at each IP (2 full hour notice as per Balancing Network Code)
- Edig@s protocol as standard for nominations, matching and allocations to facilitate data exchange with Shippers and adjacent TSOs
- A Linepack Flexibility Service (LFS), as additional flexibility for TAP Shippers



The Interconnection Agreements

What will TAP offer to the gas market by 2020?

TAP is cooperating with its adjacent TSOs to develop the Interconnection Agreements. These aim to regulate all commercial and technical activities at each Interconnection Point, including:

- Alignment on timeline for capacity booking, nominations and matching activities
- Facilitate capacity booking, by adopting a unique Capacity Booking Platform
- Definition of allocation procedures at the Interconnection Points. For this purpose TAP will install Operational Balancing Agreements (OBAs) to ensure a smoother allocation to its Shippers
- Harmonisation of Gas Quality Specifications to facilitate the trading in the region
- Coordination on the definition of planned maintenances



Extended cooperation

The big picture

Beyond development of Interconnection Agreements, TAP is promoting a strong cooperation with its adjacent TSOs through regular meetings on commercial items including:

- balancing model
- definition and alignment of imbalance prices
- possible further commercial development for the SEE region

Southern Gas Corridor Interoperability Forums

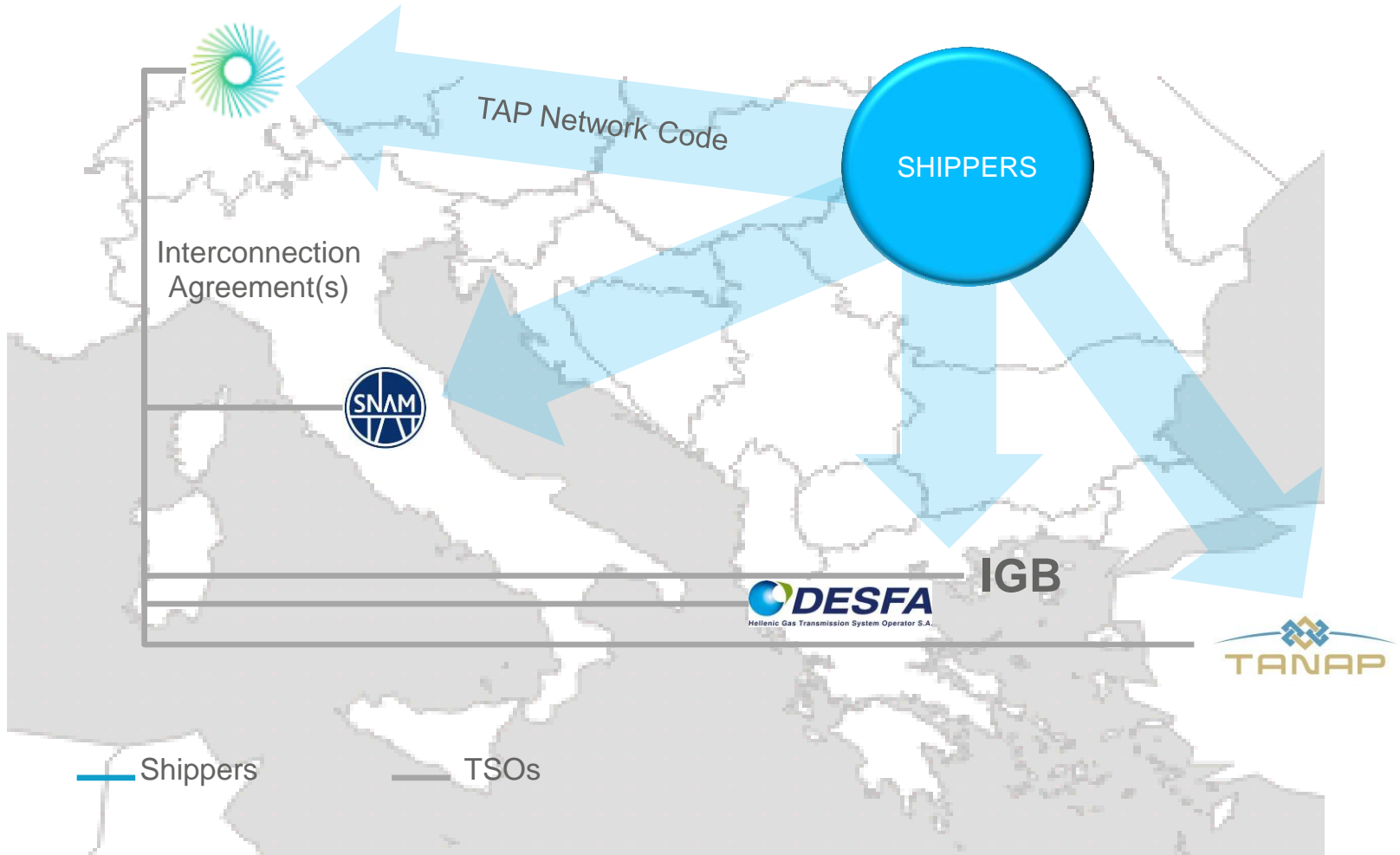
TAP, together with its adjacent TSOs and Southern Gas Corridor stakeholders, is also committed to ensuring harmonisation of rules along the value chain, facilitating gas transportation.

For this purpose Interoperability Forums are held on yearly basis.



Daily operational flows and related agreements

Ensuring smooth operations





Trans Adriatic
Pipeline

Questions?





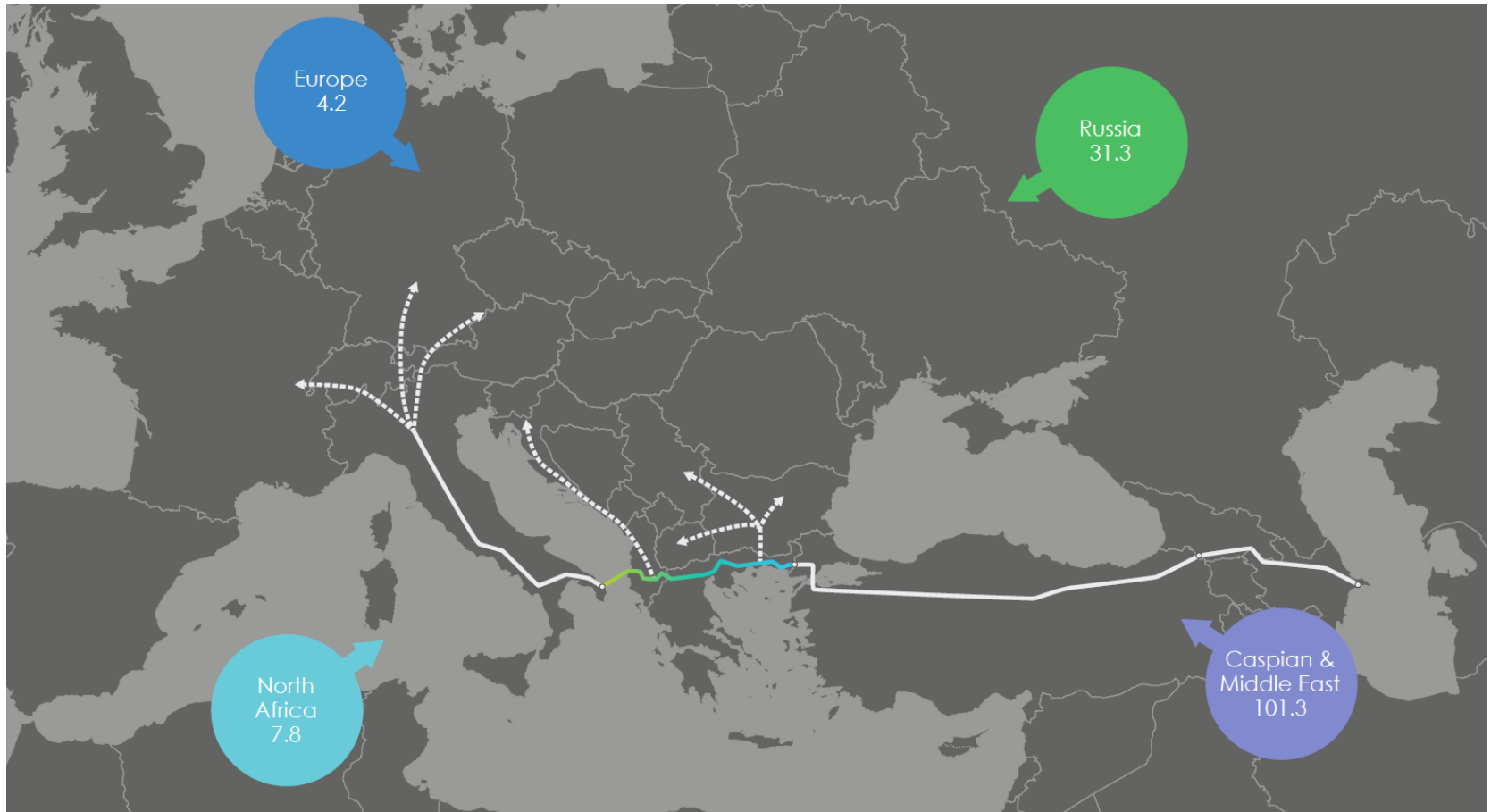
Trans Adriatic
Pipeline

Thank you!



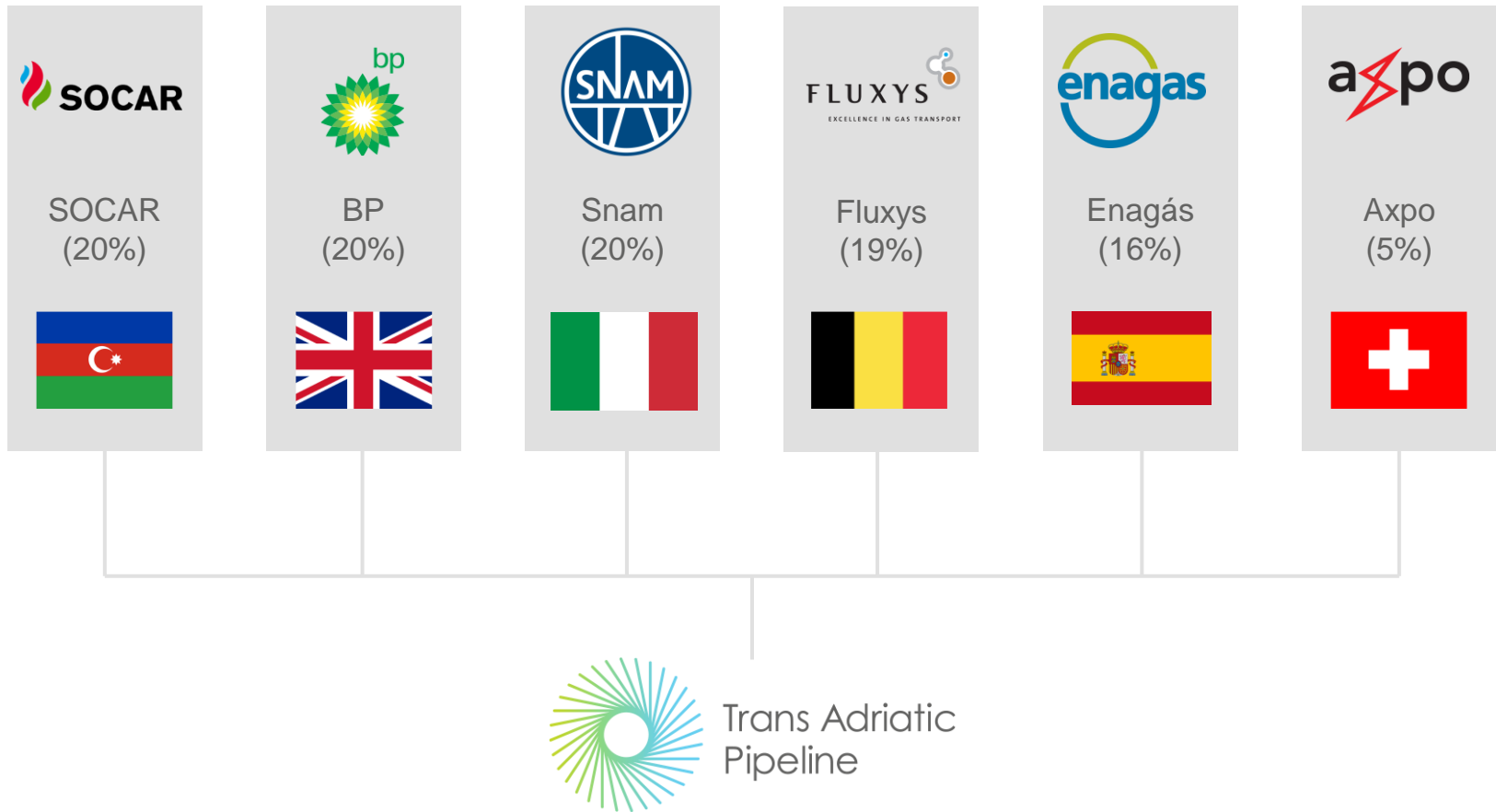
Natural gas reserves in trillion cubic metres

BP World Energy Statistical Review 2014



TAP's shareholders

Supported by major energy companies



Procurement Status

Award of major procurement contracts almost completed



Status

• Construction and rehabilitation of access roads and bridges in Albania	Contract awarded April 2015
• Large diameter ball valves	Contract awarded July 2015
• Turbo compressors	Contract awarded August 2015
• Fittings, isolating joints and scraper traps	Contract awarded October 2015
• Line pipes and bends (onshore)	Contracts awarded in October & November 2015 (270km + 495km)
• Pipeline receiving terminal (PRT) and pipeline construction	Contract awarded December 2015
• Compressor stations	Contract awarded May 2016
• Line pipes and bends (offshore)	Contract awarded April 2016
• Offshore pipeline construction	Contract awarded April 2016
• Onshore pipeline construction	Contract awarded March 2016
• SCADA systems	PQ complete, ITT issued Jan 2016
• Fibre optic cable	PQ complete, ITT issued Jan 2016

TAP is easily expandable to 20 bcm (back up slide?)

Gas reserves in the wider Caspian region are abundant

TAP is able to expand its capacity from 10 to 20 bcm at **marginal incremental cost** when new supplies become available

The current 10 bcm pipeline configuration already considers the 20 bcm scenario, namely:

- Diameters of onshore and offshore pipelines
- Size and location of Block Valve Stations (BVS)
- Land plots for all stations

For 20 bcm TAP will need:

- Capacity expansion at two existing compressor stations and Pipeline Receiving Terminal
- Two new compressor stations at Bilisht, Albania and Serres, Greece

