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European Energy Union - A Reorganization or a Further Step Ahead?: Engaging Turkey

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European Energy Union

- Energy security
- Energy Market
- Energy Efficiency
- Decarbonization
- Research



Barroso's Era

- a new Green paper, “A European Strategy for Sustainable, Competitive and Secure Energy 2006
- competitiveness and the internal energy market,
- diversification of the energy mix,
- solidarity,
- sustainable development,
- innovation and technology, and,
- external energy policy.



Barroso's era II

- Strategy on climate change for 2020 and beyond”
- improving the EU's energy efficiency by 20% by 2020,
- increasing the share of renewable energy resources to 20% by 2020,
- developing a safe environmental carbon geological storage policy.
- An energy policy for Europe 2007



Energy in Lisbon treaty

- The most concrete step to form a single energy policy was taken with the Lisbon Treaty in 2007.
- The Treaty established solidarity in energy and environment policy making in the EU.
- According to the Article 2C, energy became one of the areas of shared competence between the Union and member states.
- areas were internal market, consumer protection, trans-European networks and environment.
- Article 176A created four objectives that serve for the better functioning of the internal market, and protecting and improving the environment;
 - to ensure the functioning of the energy market,
 - to ensure the Union's security of supply,
 - to support energy efficiency and saving and the new and renewable energy developments,
 - to promote energy networks' interconnection.



The EU's Journey for establishing a Common Energy policy

- Barroso's Commission
- Three main pillars: Security of Supply, Competitiveness, Sustainability
- Lisbon Treaty: (1) ensuring the functioning of the energy market, (2) **ensuring the security of supply in the Union**, (3) promoting energy efficiency and renewable energy and (4) promoting the interconnection of energy networks
- Juncker's Commission and European Energy Union: (1) **supply security**, (2) a fully-integrated internal energy market, (3) energy efficiency, (4) Climate action – emission reduction, and (5) research and innovation.



EU Energy Governance

- is key to the functioning of every dimension of the European Energy Union;
- interpreted as multi-level authority designed to enhance the attainment of EU-level objectives and Member State requirements within and beyond the EU
- the concept is not clearly defined



Challenging the EU Energy Governance

- The structure of the governance: will member states and EU institutions operate in hierarchy or together as stake holders? I mean what will be the level difference?
- The content of the governance: which will be the key actors? DGs, Council, Private sector, regulatory actors, parliamentary committees
- The geography of the energy governance: where will be the limit for EEU extension? Will it be a market and political structure, covering the EU member states or also covers non EU such as strategic partnerships, neighborhood zone?



Engaging Turkey

- Energy Security: High level energy dialogue between the EU and Turkey, Southern Gas Corridor, Caspian Region, TANAP, Turkish Stream, Energy Hub etc..
- Energy Market: Energy Community, TEIAS and ENTSO-E, first observer member of ENTSO-E, synchronization of Turkey with the Continental Europe region electricity grid, to connect the Turkish network to the Continental Europe Synchronous Area (CESA)



Energy Security – A priority for the EEU

- energy security has always been the ultimate priority of EU level energy policies
- other components are the tools to ensure this mentality including energy efficiency, energy markets, research and decarbonization
- Engaging Turkey?



Energy Security vs Security of Supply

Energy Security

- The uninterrupted availability of energy sources at an affordable price (IEA, 2013; Kruyt et al., 2009; Grubb et al., 2006; Sovacool&Brown, 2011)
- The protection of the entire (energy) supply chain and infrastructure (Yergin, 2006)

Security of Supply

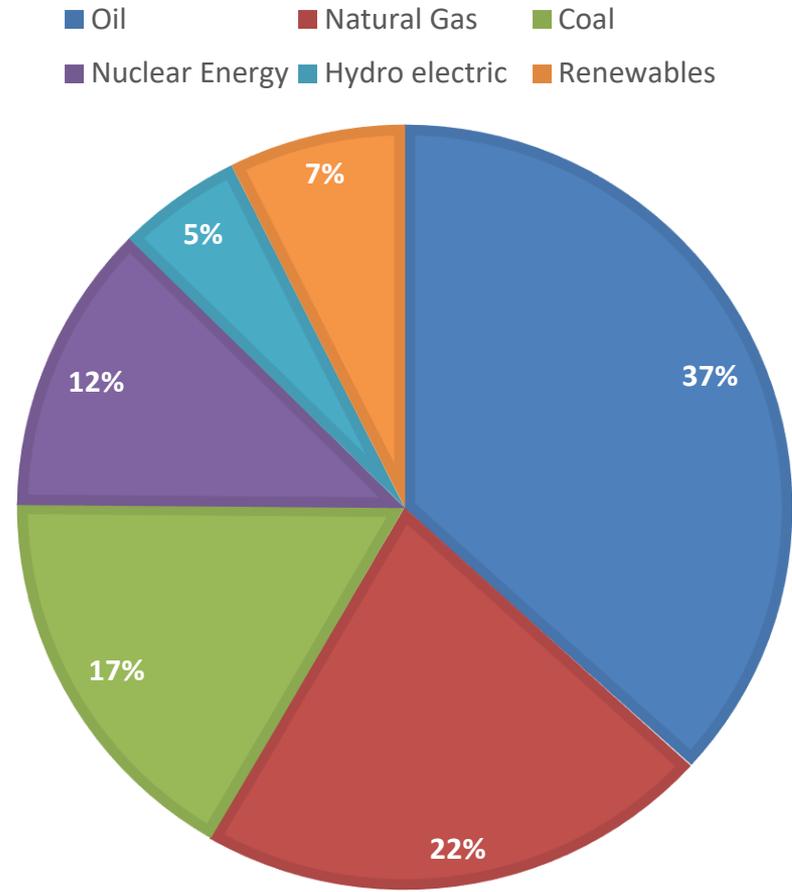
- Part of greater energy security matrix
- The consumer countries' wish to have at all times an adequate level of supplies (Biresselioglu, 2011)
- To jeopardize: (1) deliberate reduction of energy supply by the exporter country, (2) competition between energy exporter countries, and (3) isolation of energy consumer country (Barton et al., 2005)
- New methodology for measuring the level of security of supply (Biresselioglu et al., 2015)
- Number of supplier countries and the level of dependency on a single supplier (Biresselioglu et al., 2015)



The EU's Energy Profile

- According to Eurostat (2016);

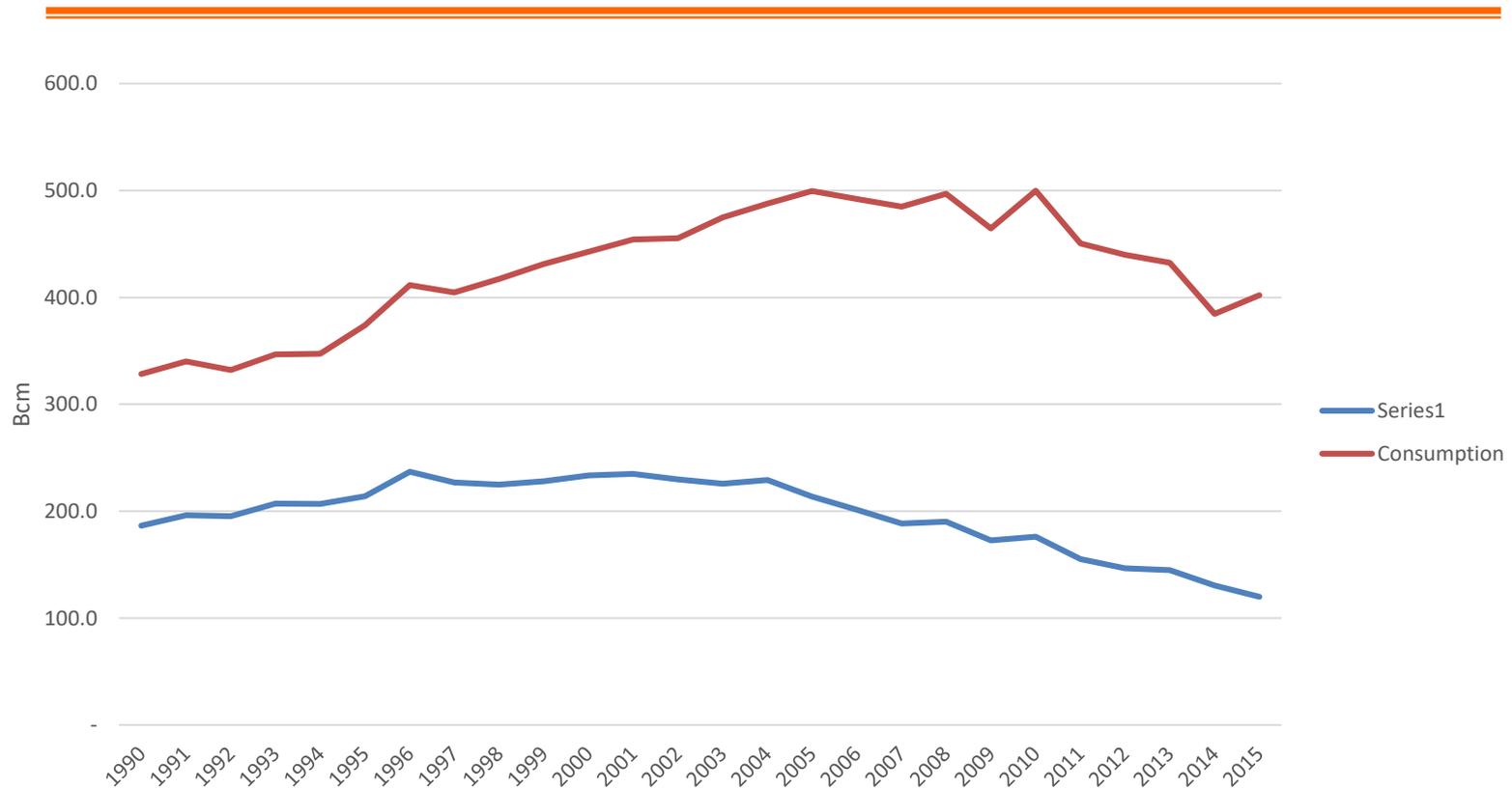
1. Total import dependency: 53%
2. Natural gas import dependency: 66%
3. Oil import dependency: 90%



Source: BP

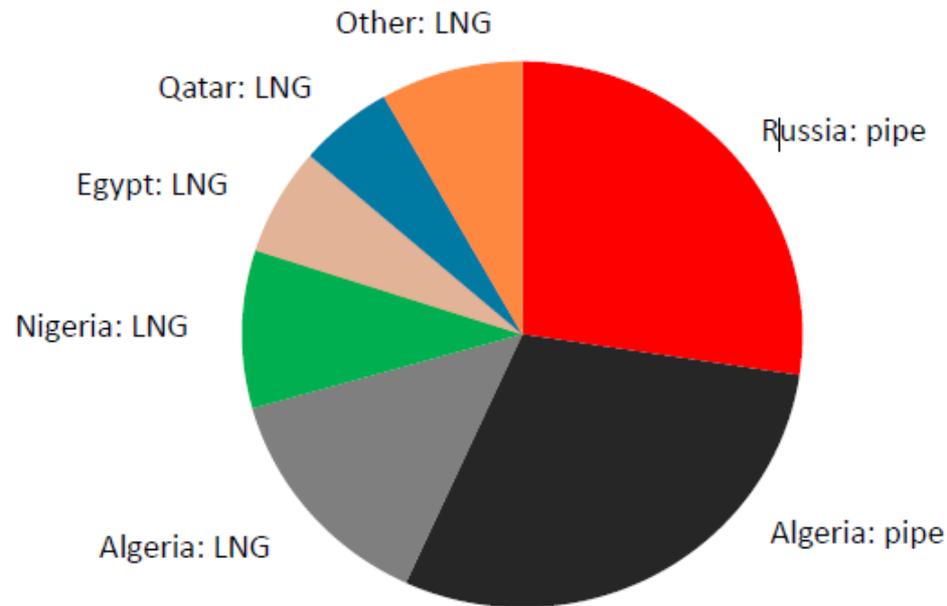


EU's Natural Gas Consumption & Production (1990-2015)



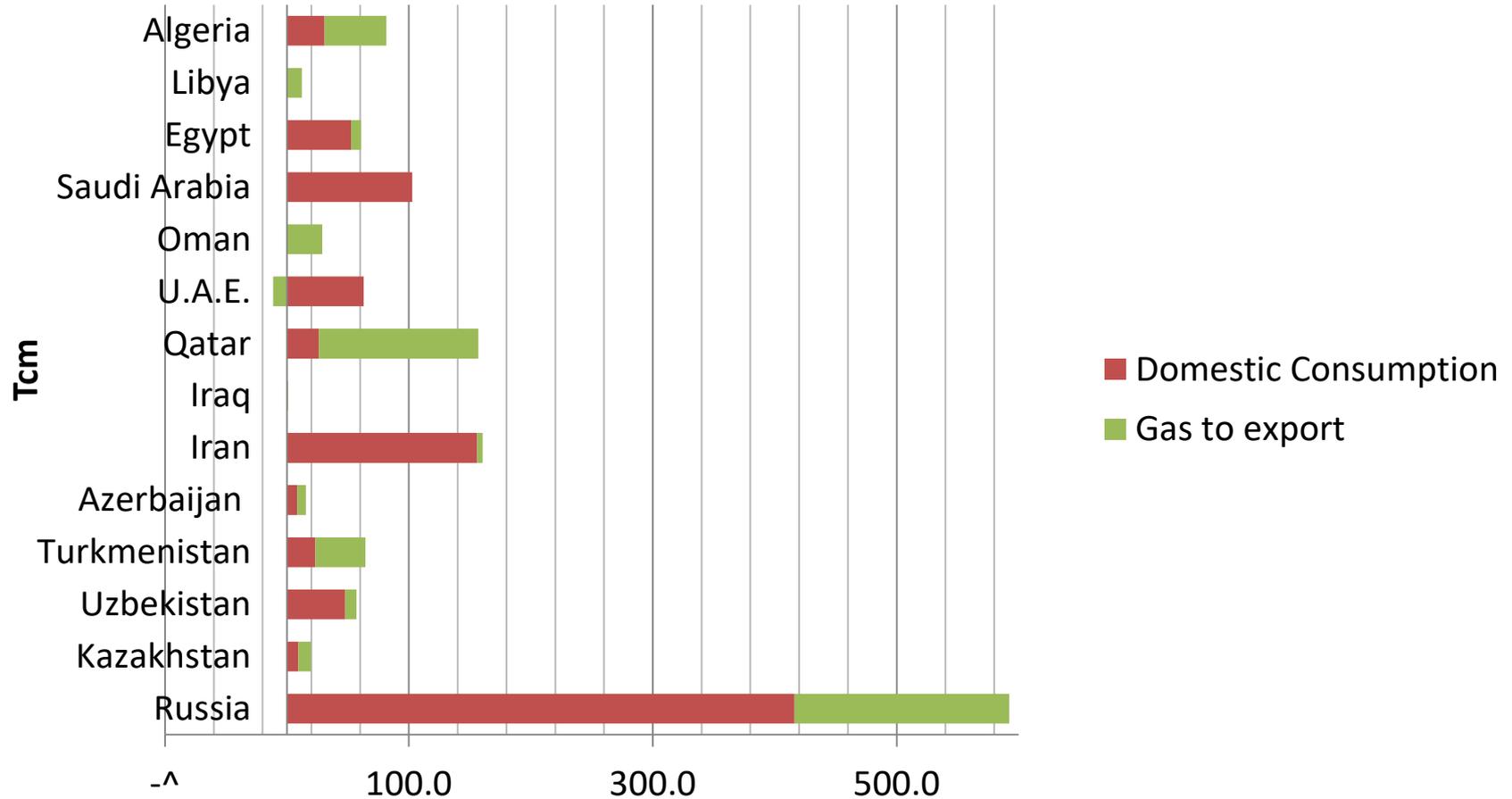
Source: BP

EU natural gas contracts are expiring...



- 156 bcm/y natural gas contract will expire before 2025

Amount of Gas to Export to the EU?



Source: BP

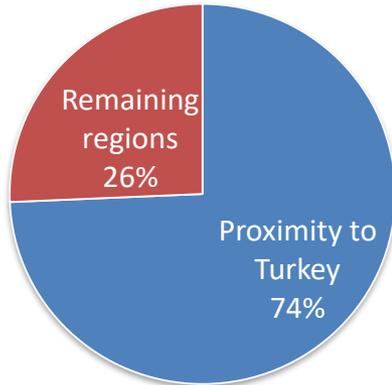
Turkey: A transit state or a potential hub?

- A major role in European Energy Policy making
- Diversification
- Energy bridge-still?
- Turkey's bet on controlling the pipelines..
- Potential hub: Price benchmarking
- BTC and BTE's initial role
- Competition and cooperation of Russia
- Turco-Russo relations
- East-West and North-South



Turkey & Global Natural Gas Reserves

Share of Global Natural Gas Reserves



Russia
32,3 tcm

Kazakhstan 0,9 tcm

Uzbekistan 1,1 tcm

Azerbaijan
1,1 tcm

Turkmenistan
17,5 tcm

Turkey

IRAN – 34 tcm

EU
0,4 tcm/y (today)
+%13-%35 (2030)

Eastern
Mediterranean
2,5 tcm (?)

Iraq
3,7
tcm

Qatar
24,5 tcm

U.A.E
6,1 tcm

Oman
0,9tcm

Saudi Arabia
8,3 tcm

Algeria
4,5 tcm

Libya
1,5 tcm

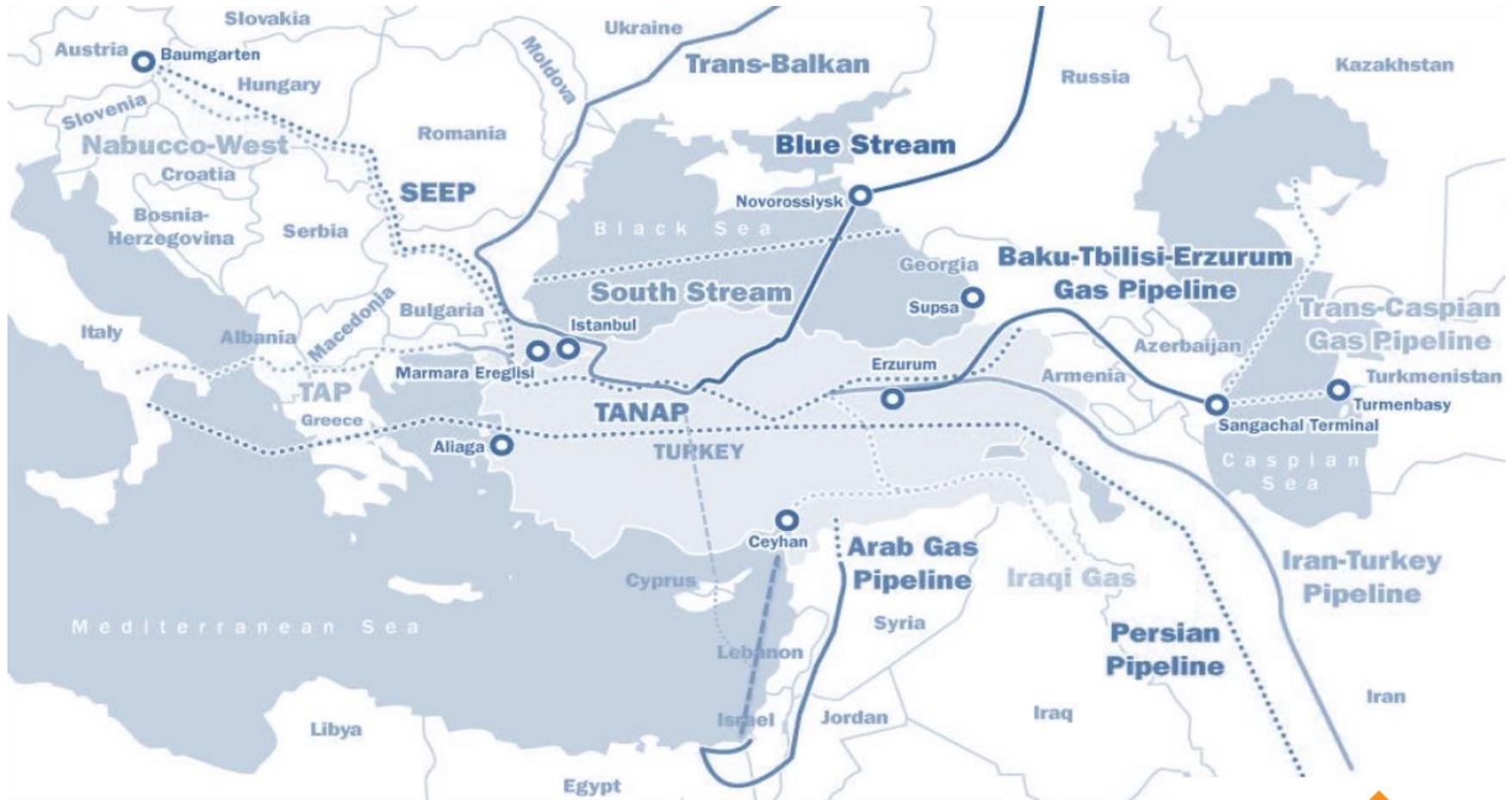
Egypt
2,0
tcm

Source: BP, APCO, EIA

Natural Gas Pipelines that Turkey involves...

Project	Destination	Status	Capacity
Nabucco	Turkey-Austria	Cancelled	10-23 bcm/y
Nabucco-West	Turkey-Austria	Cancelled	10-23 bcm/y
Baku-Tbilisi-Erzurum	Azerbaijan-Georgia-Turkey	Operational (2006)	20bcm/y
Blue Stream	Russia-turkey	Operational (2006)	16bcm/y
Iran-Turkey Pipeline	Iran-Turkey	Operational (2001)	14 bcm/y
South Stream	Russia-Austria	Cancelled/Postponed (?)	63 bcm/y
Turkish Stream	Russia-Europe	(?)	?
ITGI	Turkey-Greece-Italy	First stage completed	63bcm/y
Trans-Anatolian Gas Pipeline	Azerbaijan-Turkey-Europe	Under Construction	16 bcm/y
Arab-Gas Pipeline	Egypt-Jordan-Syria-Turkey	Under Construction - Postponed	10,3 bcm/y
Trans-Caspian Pipeline	Turkmenistan-Azerbaijan (Kazakistan)	Proposed	30 bcm/y
Turkey-Iraq Pipeline	Iraq-Turkey	Proposed	?
Persian Pipeline	Iran-Turkey-Spain	Proposed	37-40 bcm/y
East-Med Pipeline	Israel-Turkey-?	Proposed	?

Pipeline Network



Source: ETD



Preliminary Conclusions

- Window of opportunity for the EU
- Turkey could be a key for the diversification efforts
- The EU needs to be more active
- Inclusion of non-EU domain
- Cooperation between the EU and European originated Energy Companies
- Turkey's role between the EU and Russia

