



The European energy security: the case of natural gas

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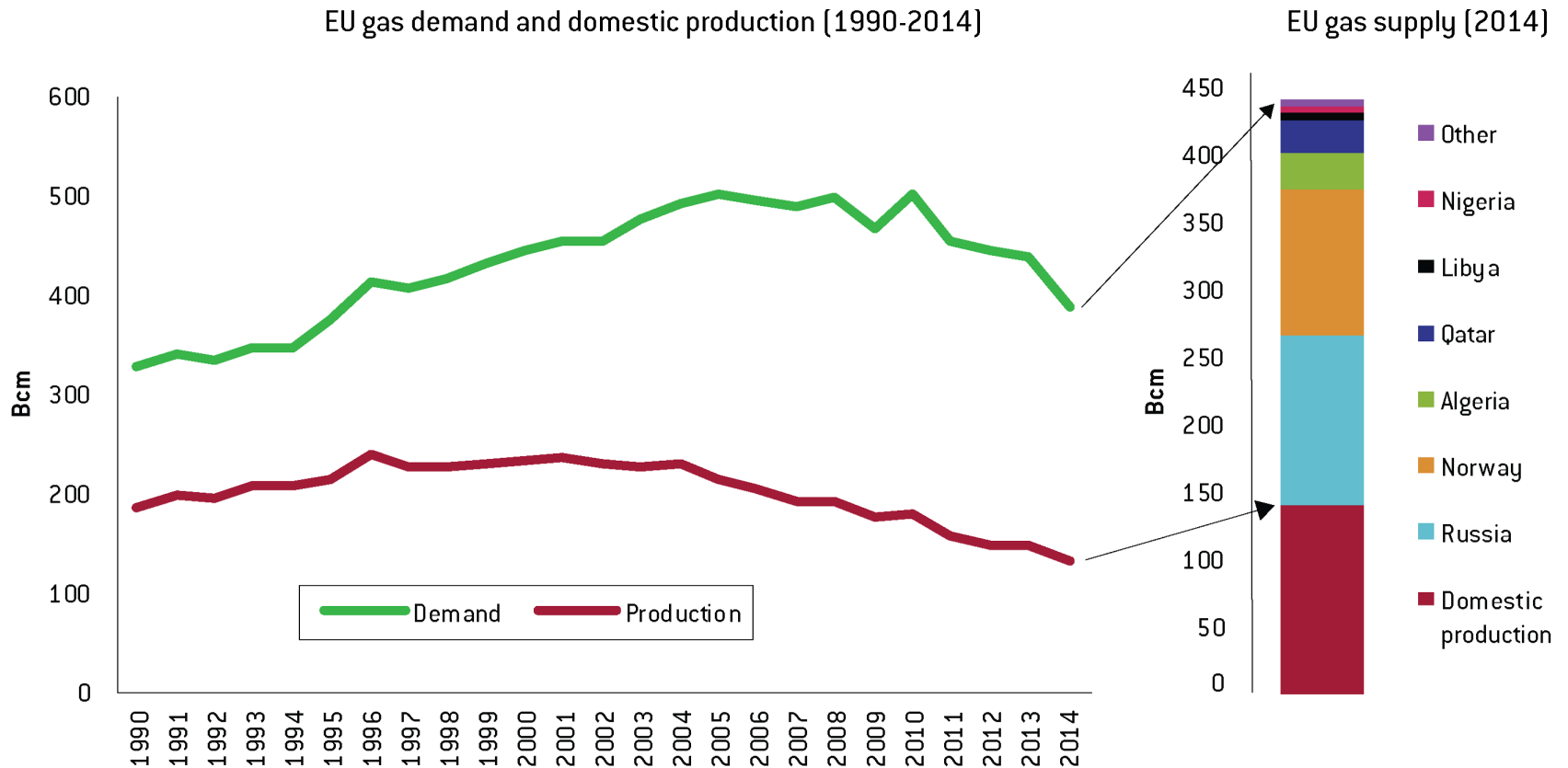
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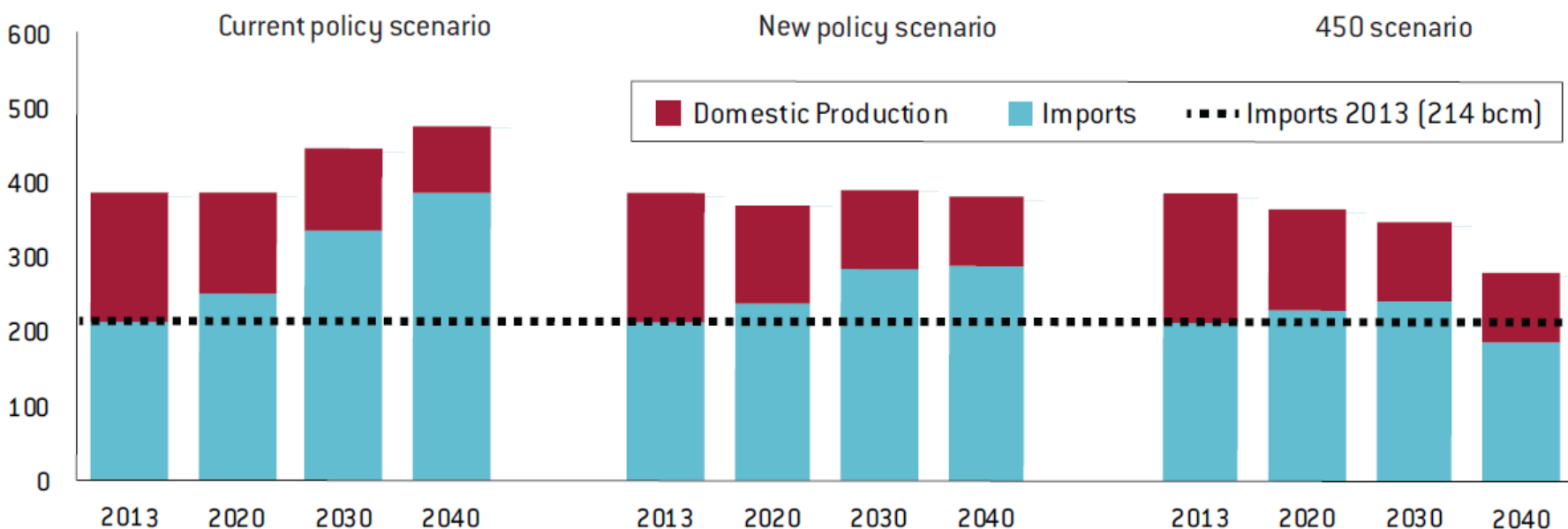
The relevance of security of gas supply for Europe

- Concerns about gas SoS underpinned inception/evolution of the **Energy Union**
- **High priority** given to gas as:
- It covers $\frac{1}{4}$ of EU mix; $\frac{1}{3}$ imported from Russia; It is infrastructure-dependent (vs. oil/coal)



The security of the EU's gas supply: just all about Russia?

- **Russia** key driver for EU policy in the area (2006, 2009 gas crises and 2014 Ukr crisis)
- Gas SoS: traditionally an high priority for Central and Eastern EU Member States
- But **gas SoS much wider issue** (potentially involving all supplies from all suppliers):
 - **Geopolitically volatile neighborhood** (not just Russia but also Algeria, Libya...)
 - **Commercial uncertainties** (Norway production outlook, LNG market development...)
- **SoS: a structural issue** that will last for **decades to come**:

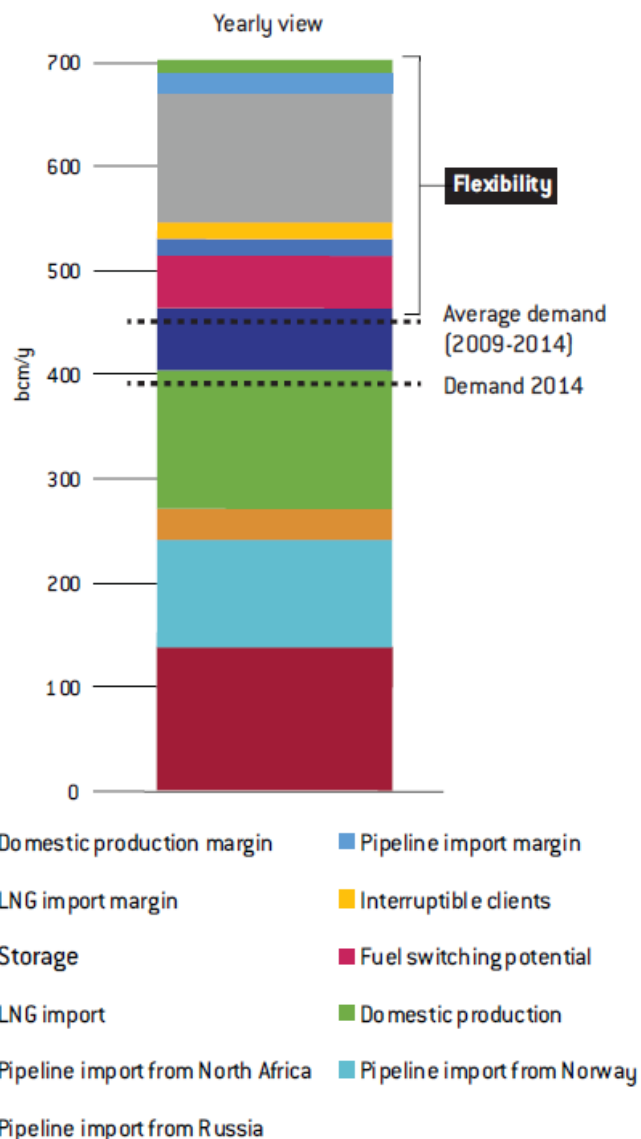


A look at the utilization rate of the EU gas import infrastructure

Pipelines (bcm/y)			
From	Capacity	Imports in 2014	Utilisation rate
Russia	230*	119	51%
Norway	127	101.1	79%
Algeria	54	19.5	36%
Libya	11	6	54%
TOTAL	422	245.6	58%

LNG (bcm/y)			
Country	Capacity	Imports in 2014 (Net of re-exports)	Utilisation rate
Spain	60.2	17.6	29%
United Kingdom	50.7	18.5	36%
France	25.3	10.1	39%
Italy	15.3	7.2	47%
Netherlands	12	0.9	7%
Belgium	9	2.1	23%
Portugal	5.5	2.1	38%
Greece	5.2	0.8	15%
Lithuania	4	n.a.	n.a.
Sweden	0.3	n.a.	n.a.
TOTAL	183.5	59.3	32%

Estimating the margin of flexibility of the EU gas system



At aggregate level the EU does have a considerable margin of flexibility.

This margin could even accommodate the loss of the largest supplier.

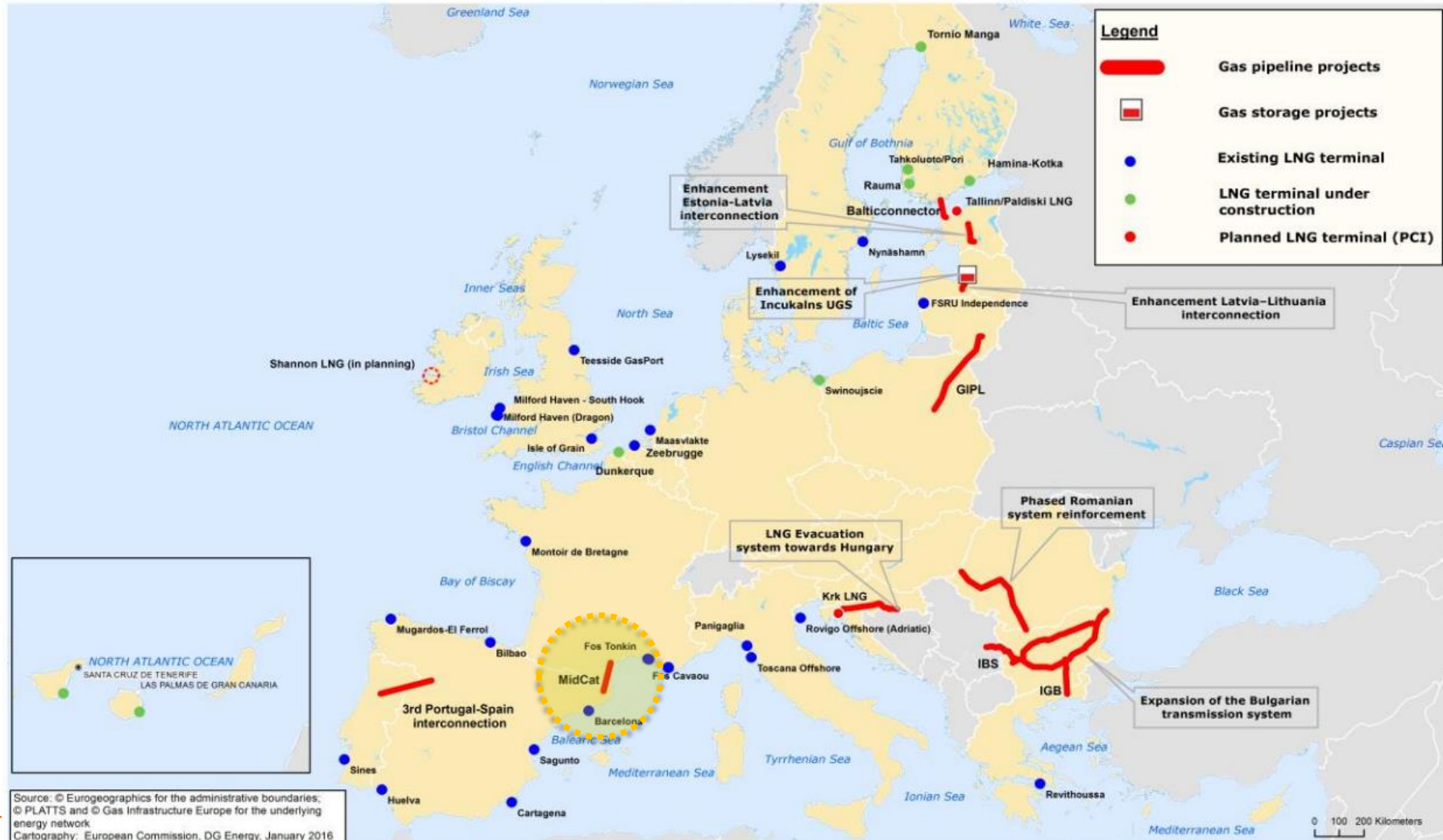
Limited interconnections make this margin theoretical.

Well interconnected EU market key for SoS.

Priority #1: build necessary interconnections in the EU to make the most of the existing LNG and storage infrastructure



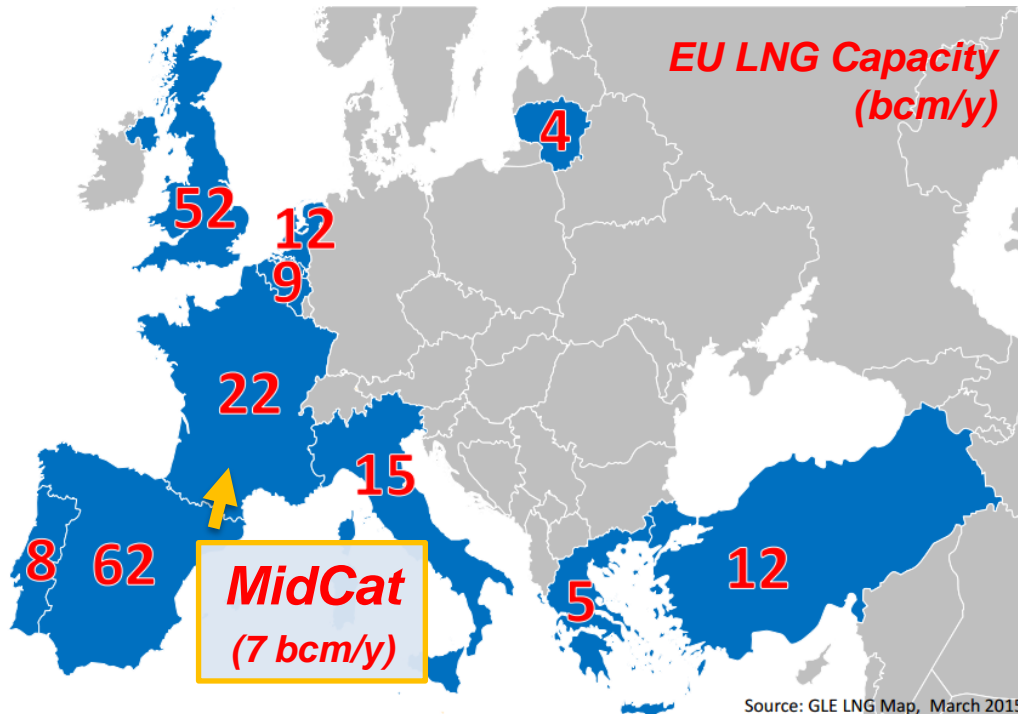
EU infrastructure relevant for the LNG strategy



Source: © Eurogeographics for the administrative boundaries; © PLATTS and © Gas Infrastructure Europe for the underlying energy network
Cartography: European Commission, DG Energy, January 2016

Interconnecting the European (dis-)Union...

- **EU** put in place several **tools** to **favour advancements** of these projects
- **'Projects of Common Interest'** (accelerated planning and permit granting, improved regulatory conditions, streamlined environmental assessment processes and access to financial support from Connecting Europe Facility)
- But still **insufficient** to speed-up projects, due to Member States' **divergent** interests
- Example: **MidCat Gas Pipeline project**



Spain: - **highest** LNG capacity
- utilization rate: **30%**

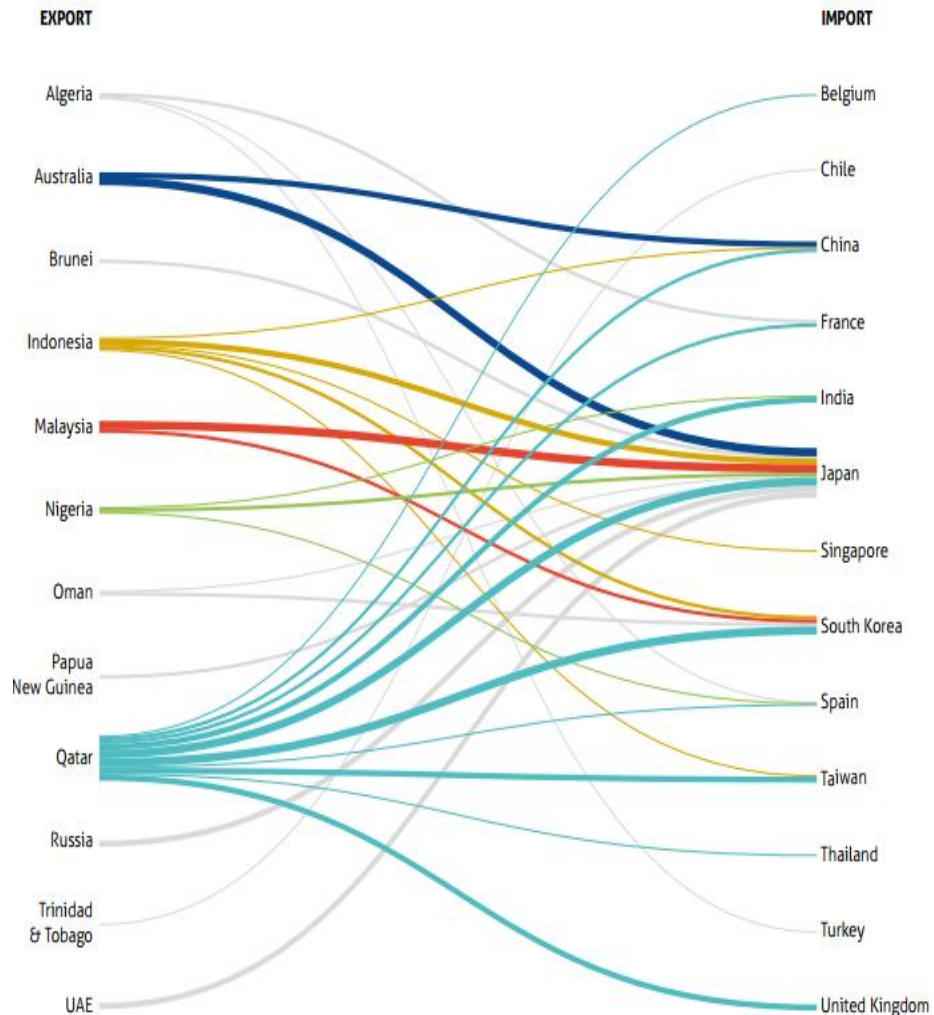
MidCat: - to allow **exports** to FR
and other EU markets
- cost: **EUR 3 bn**
(SGC: EUR 35 bn)
- **EU financial backing**

France's opposition, to prevent
competition on its market

No advancements in the project

Ensuring competitive supplies of LNG for Europe

LNG: a busy global market...



Source: GIIGNL (2015)

...with some next-door opportunities



Gas discoveries

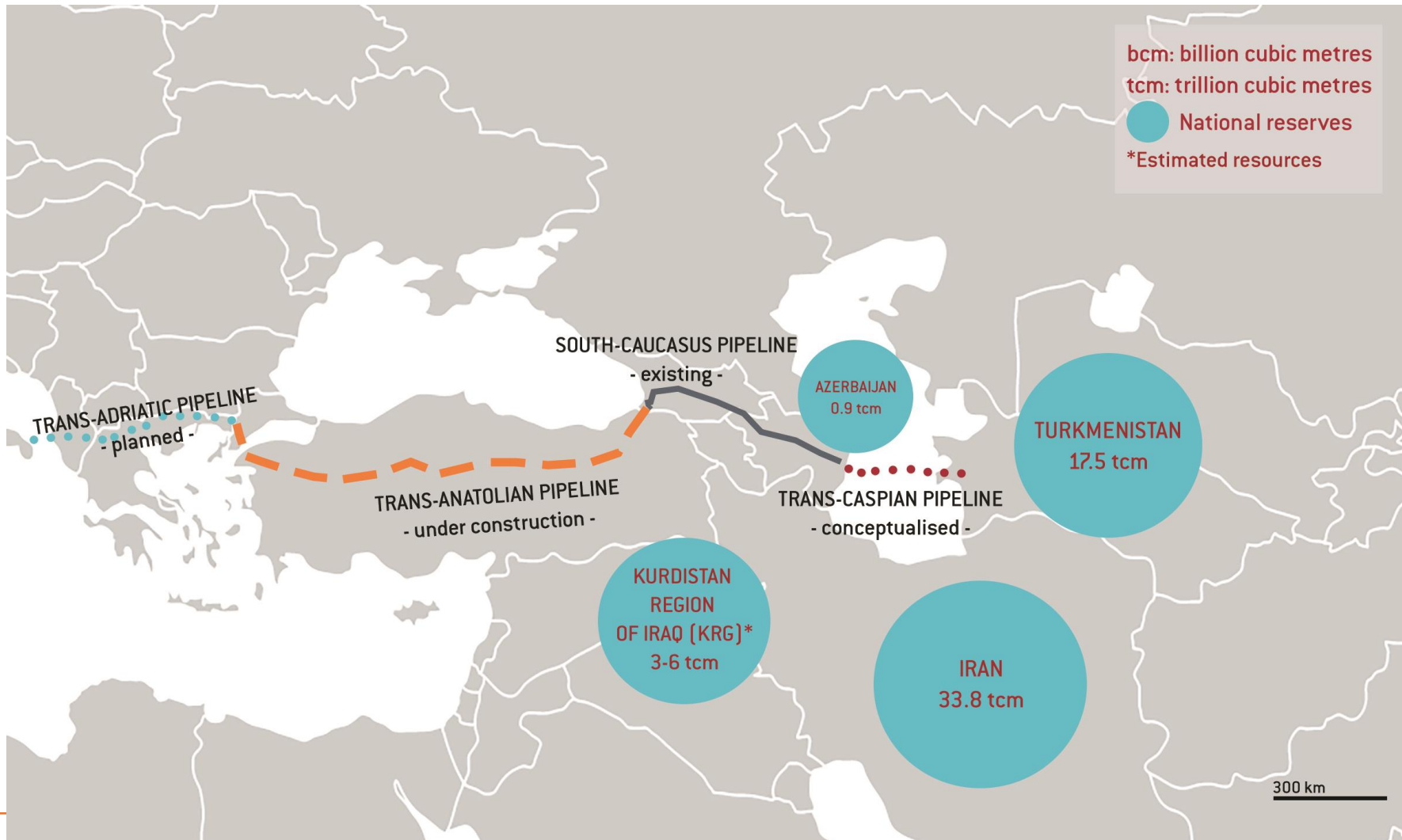
Tamar (2009) 280 bcm
 Leviathan (2010) 620 bcm
 Aphrodite (2011) 140 bcm
 Zohr (2015) 850 bcm

Egypt LNG capacity

Idku 11,5 bcm/y
 Damietta 7,6 bcm/y
 Currently not utilized!

Priority #2: diversification of gas supply (suppliers & routes)

- The **Southern Gas Corridor**: a 3,500 km-long pipeline system to link the Caspian region
- By **2020**, **10 bcm/y** from Azerbaijan to Europe – Future prospects remain uncertain



Conclusion:

Energy: a clear example of how the EU is better off united!

- A unique, well functioning and well interconnected, EU gas market could provide great flexibility and security for all
- By acting together on external supply projects (e.g. Southern Gas Corridor) EU has more political and economic leverage
- Coordinating Europe's gas markets at EU level allows to seize synergies that single Member States cannot even see
- Gas (and overall energy) markets: a clear example of how EU is better off united!

Thank you!