Energy Community

Gas markets and infrastructure / focus on Europe

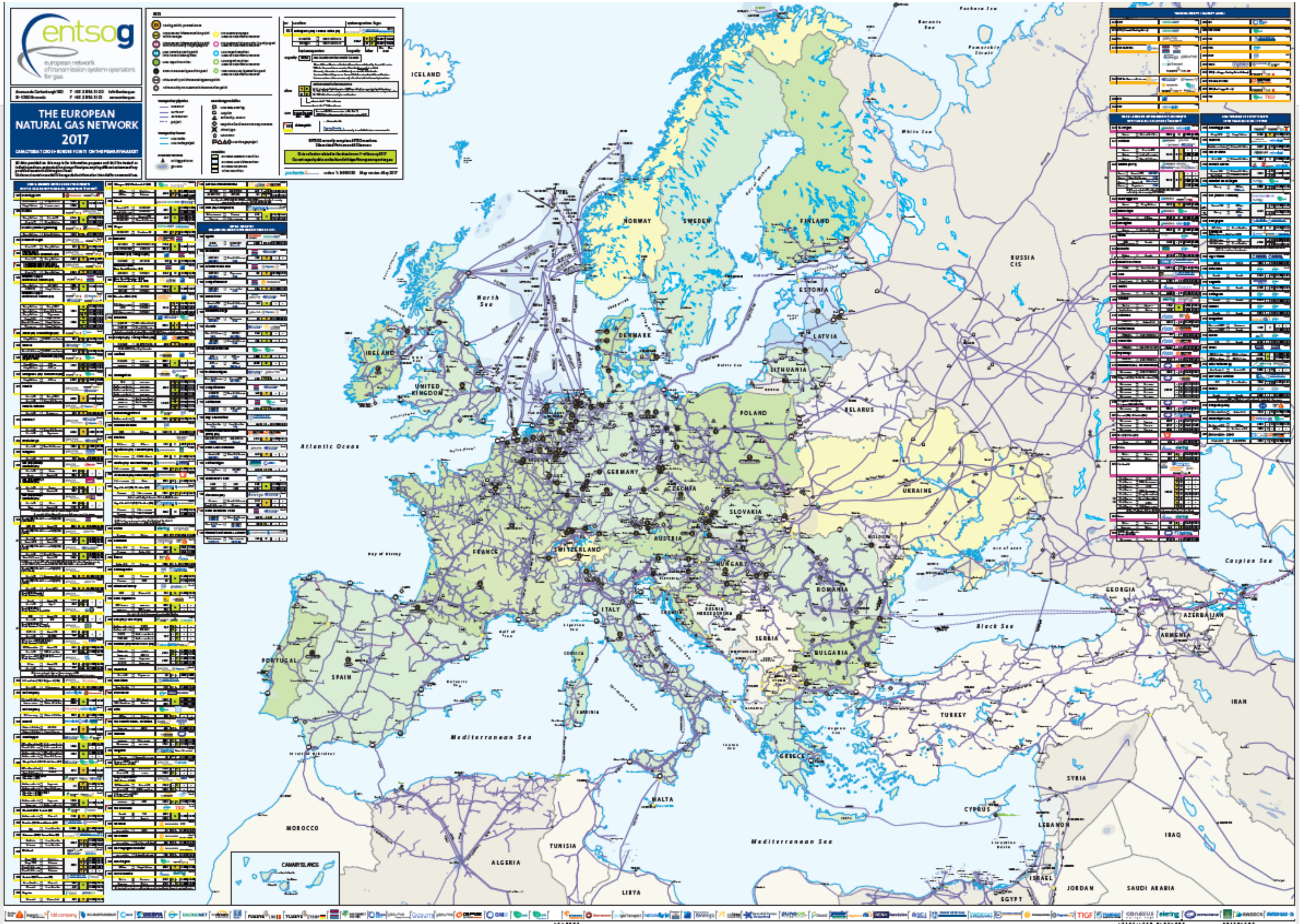
Session II : Prospects for future natural gas and oil markets

16th IAEE European Conference

Slovenia, Ljubljana, 25-28 August 2019

What comes first...

market or infrastructure?



Approximately

- **445.000 km**

- **EU 207.000 km**
- **EnC CPs 45.000 km**
- **Russia 172.600 km**
- **Turkey 13.400 km**
- **Algeria 7.500 km**
- **……**

Market laws and rules

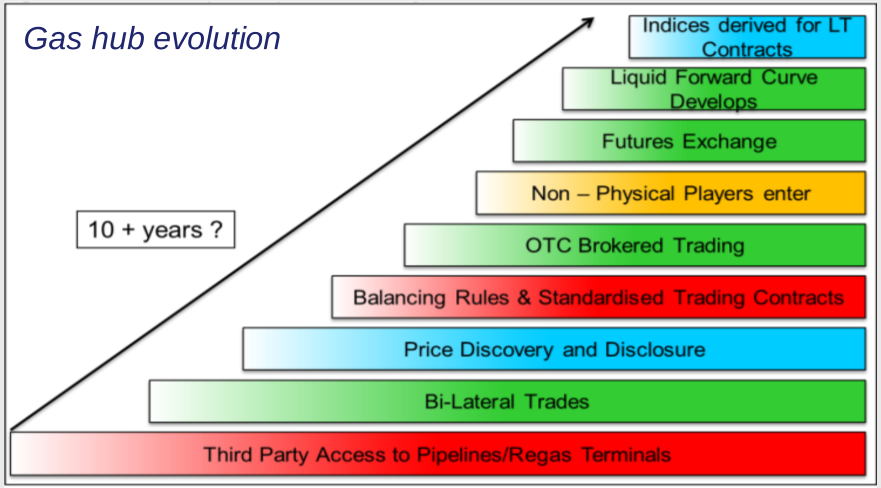
1998 1st Energy Package	2003 2nd Energy Package	2009 3rd Energy Package	4th Energy Package
Directive 98/30/EC	Directive 55/2003/EC	Directive 73/2009/EC	

> 20 years of common rules for the internal market in natural gas

+

Network Codes

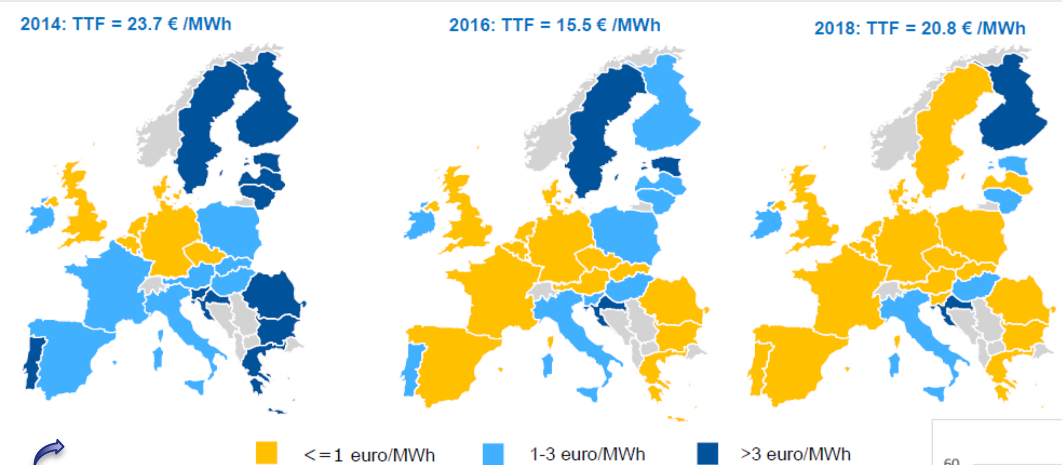
+



Source: H.Rogers (OIES)

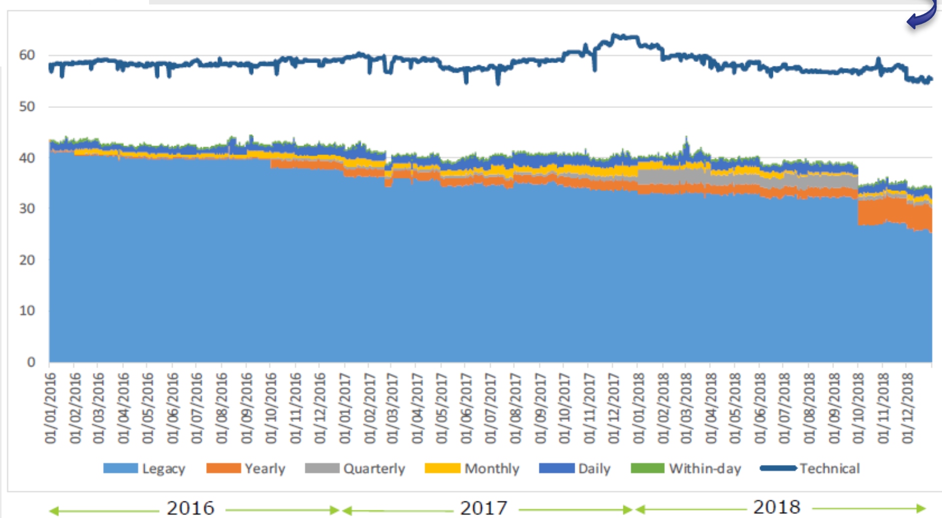
TTF, NBP
GPL, NGC
VTP, VOB
PEGn, TRS
PVB, PSV
....

Interaction between infrastructure and markets



Calculated gas sourcing cost compared to TTF - estimates

Aggregated capacity entry and exit bookings on the booking platforms – 2016-2018 – TWh/day



Source: ACER estimates based on
NRA input, Eurostat Comext, BAFA, Platts (prices)
And on PRISMA, GSA, RBP and ENTSOG (capacity bookings)

Focus on CE&SE Europe

Long-term contracts

Few sources of supply

Delayed implementation of EU acquis

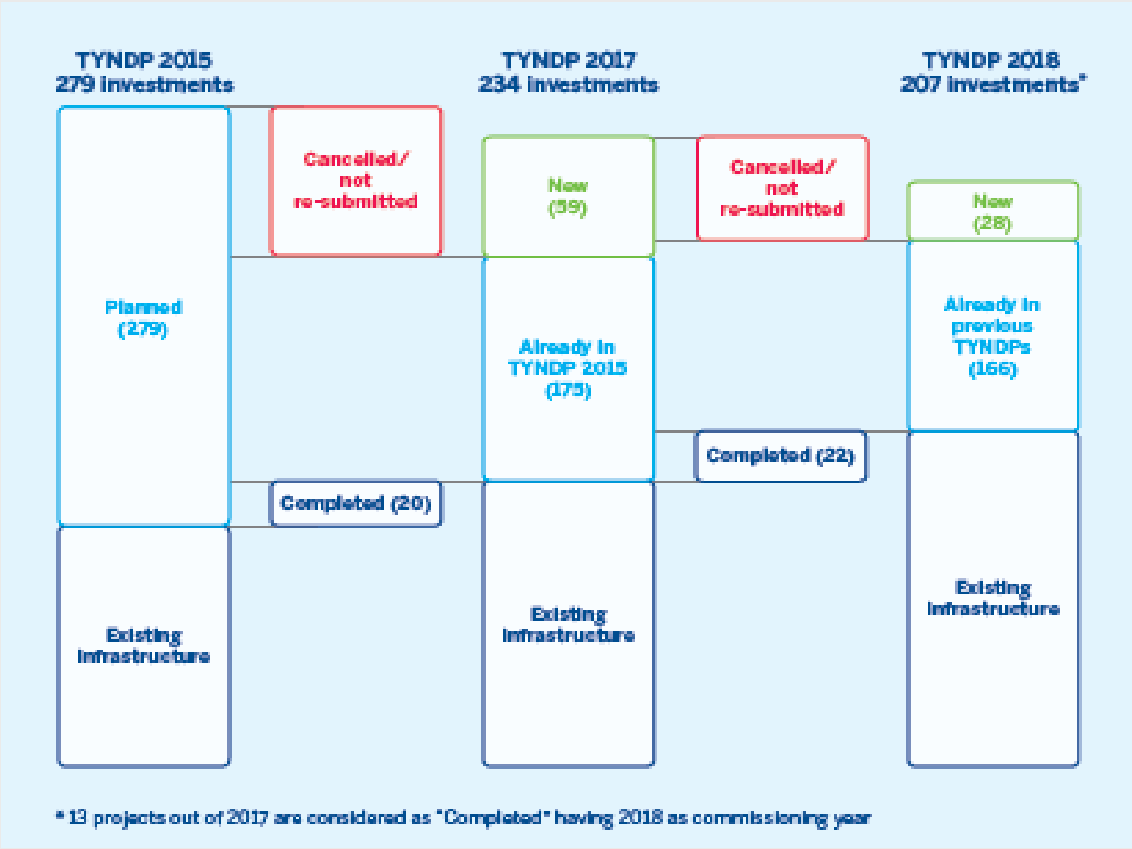
Plans to develop national networks

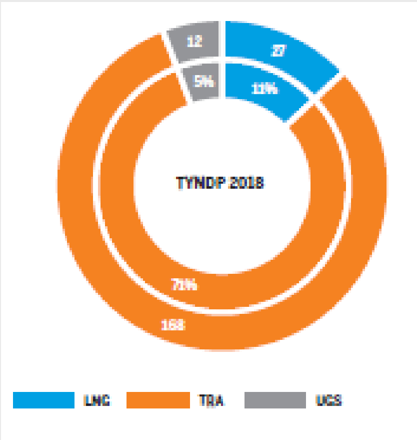
Interconnectivity to be increased

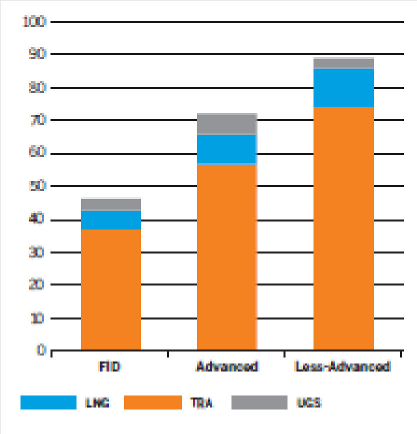
CESEC initiative

Combined measures: construction of missing infrastructure & fostering the implementation of pending EU rules (nationally and regionally)

New gas infrastructure is still needed...

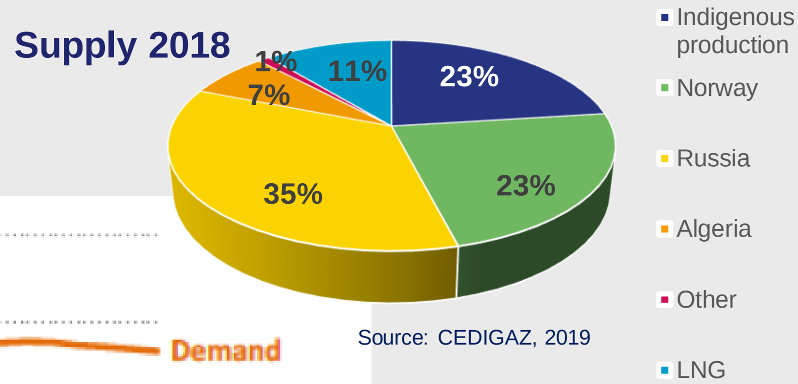




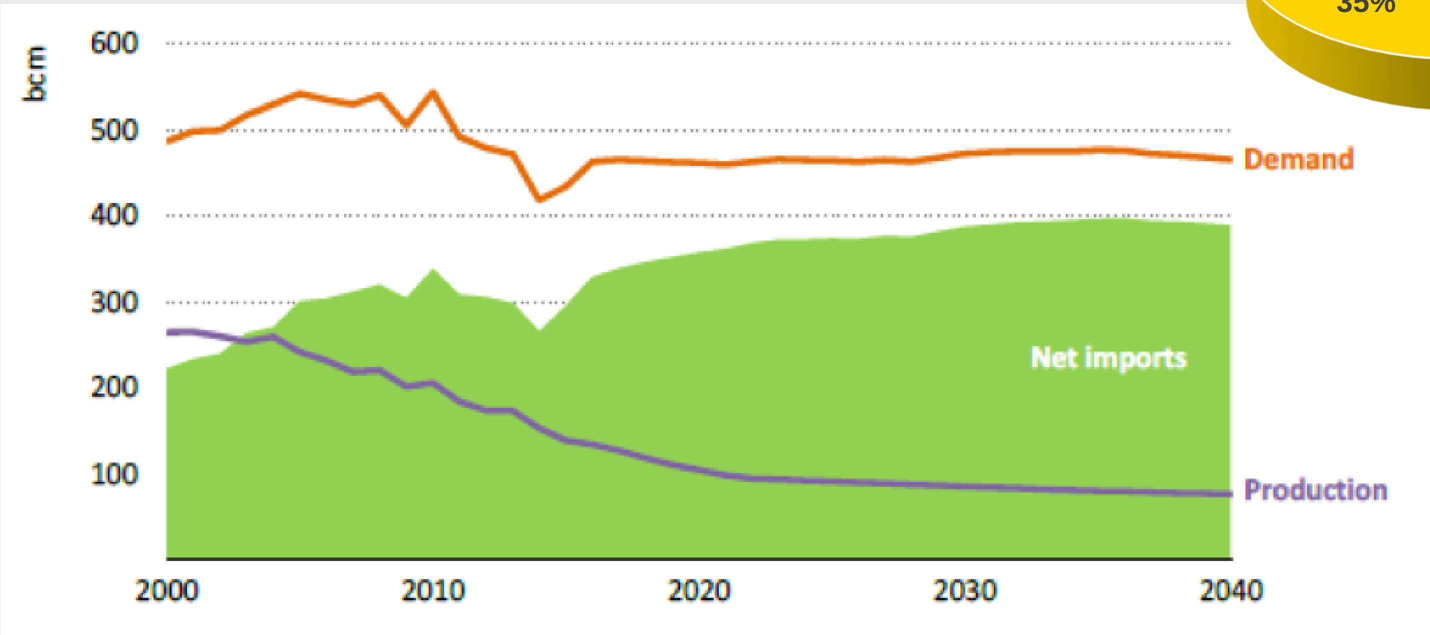


Source: ENTSOG TYNDP 2018, Infrastructure report

Gas demand in EU

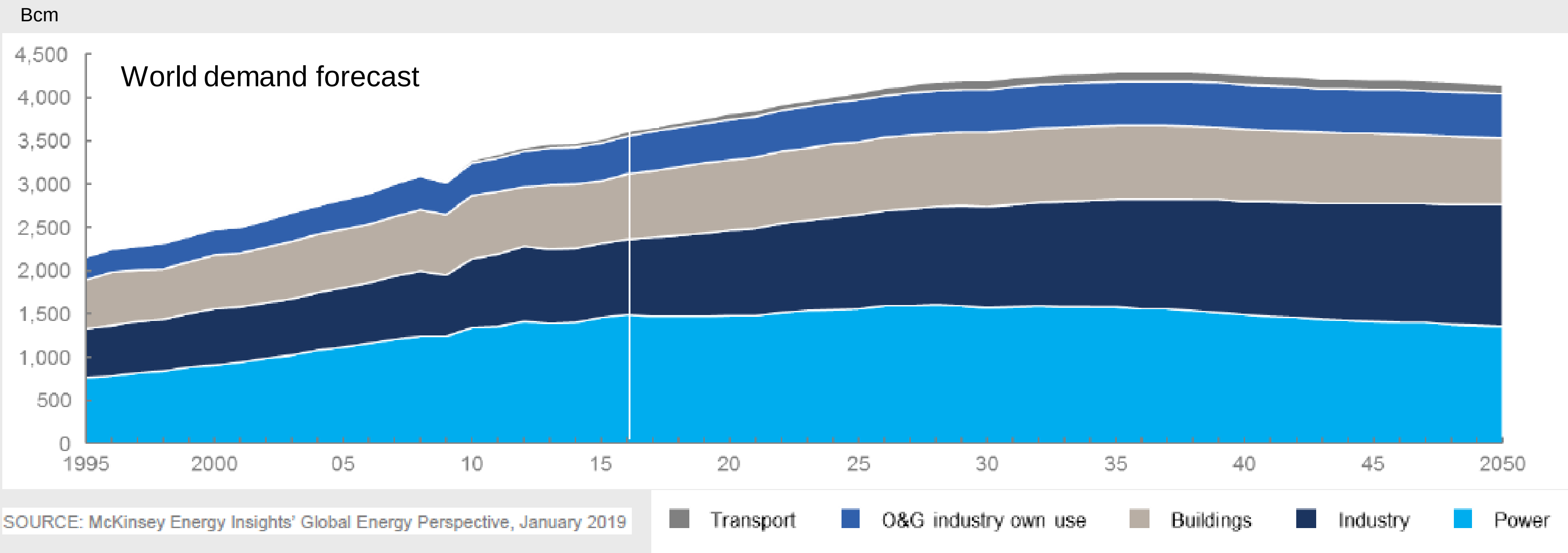


Source: CEDIGAZ, 2019



Source: IEA WEO 2017

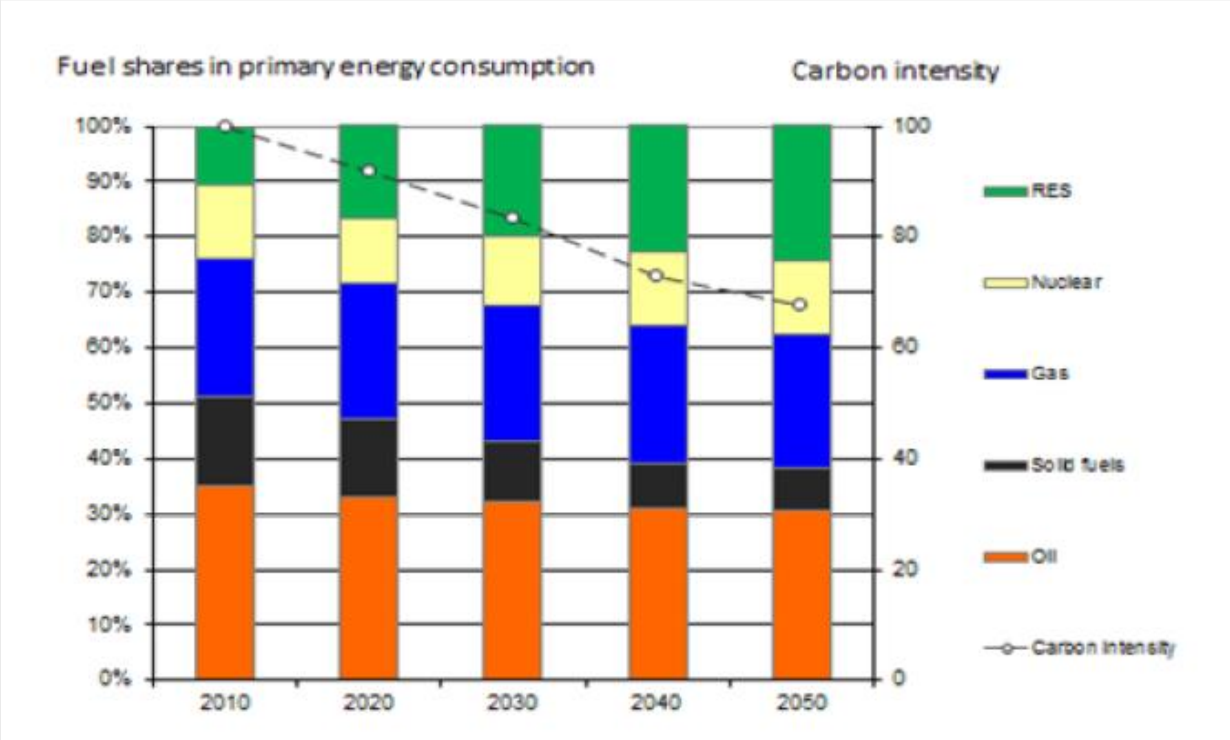
Bright future for natural gas?



SOURCE: McKinsey Energy Insights' Global Energy Perspective, January 2019

Gas is the only fossil fuel which grows its share of total energy demand until 2035 –albeit at declining growth rates –and then plateaus

Bright future for natural gas?

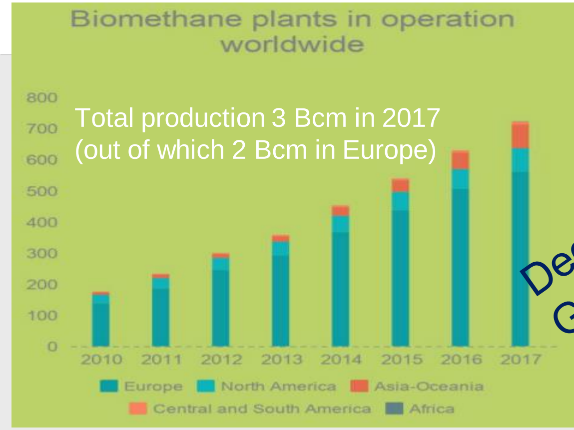


Source: EC Impact assesment 2030 Strategy, 2014

In the EU, natural gas declines least of all fossil fuels keeping more or less its current share of 25% through 2030 and loosing just one pp up to 2050

At the world level:
22,5% in 2030 to 22,2% in 2050

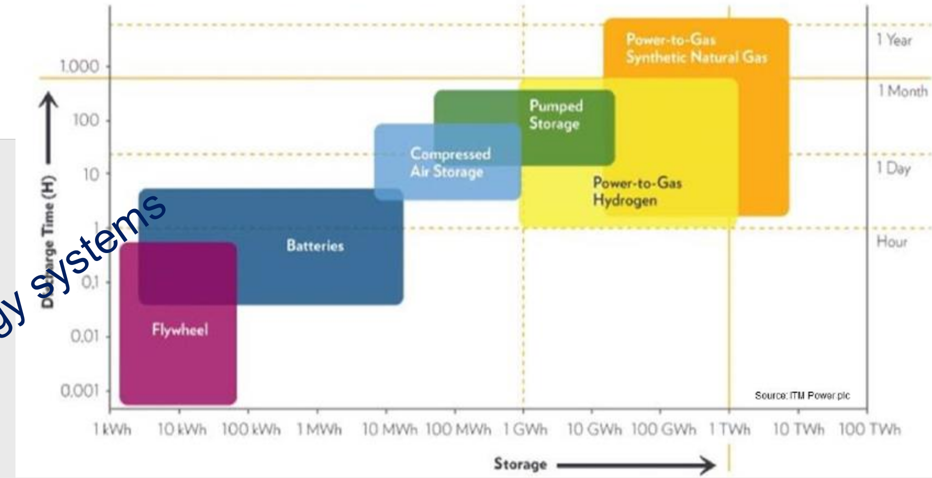
Or bright future for gases?



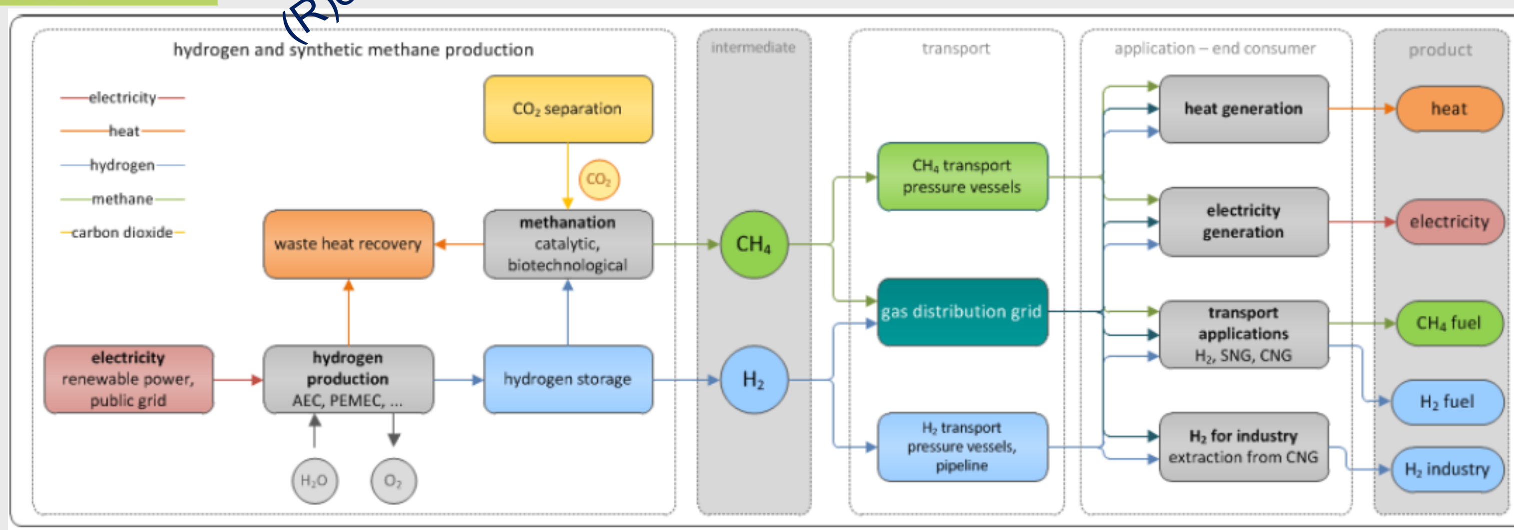
Total production 3 Bcm in 2017
(out of which 2 Bcm in Europe)

Source: CEDIGAZ

Decarbonisation
GHG emission savings
Storage of electricity
Sector coupling
(R)evolution of energy systems



Source: Eurogas Elusion energy, 2016 / ITM Power



Source: Energy Institute at Johannes Kepler University

Gas markets and infrastructure to be fit for future

Different gases - access to the network

Gas composition - appliances – producers – standards

Cooperation / Coupling of different sectors in planning and in operation

Electricity storage = gas production

Regulatory issues

RES origin verification

New business models

Flexibility

…………

Thank you for your attention!

www.energy-community.org

karolina.cegir@energy-community.org