

Deep Dive Gas Midstream

Christopher Delbrück, Chief Financial Officer Keith Martin, Chief Commercial Officer

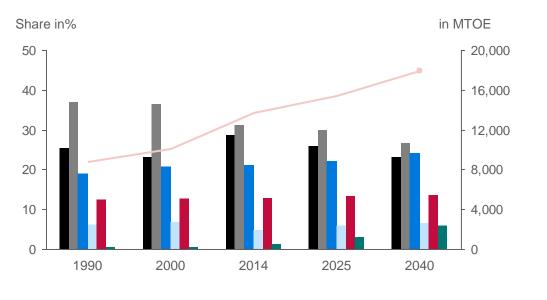


Т.	Gas market trends	Keith Martin
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Gas will be key in supporting the transformation to decarbonization

Shares of primary energy demand



Coal

Gas

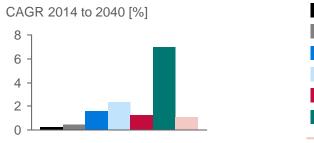
RES

Nuclear

Hydro & Biomass

Total primary energy demand

Oil





Key highlights

Increasing energy demand

from non-OECD countries, driven by strong economic growth, particularly in Asia

 Non-OECD Asia, including China and India, accounts for more than half of the world's total increase in energy consumption over the projection period

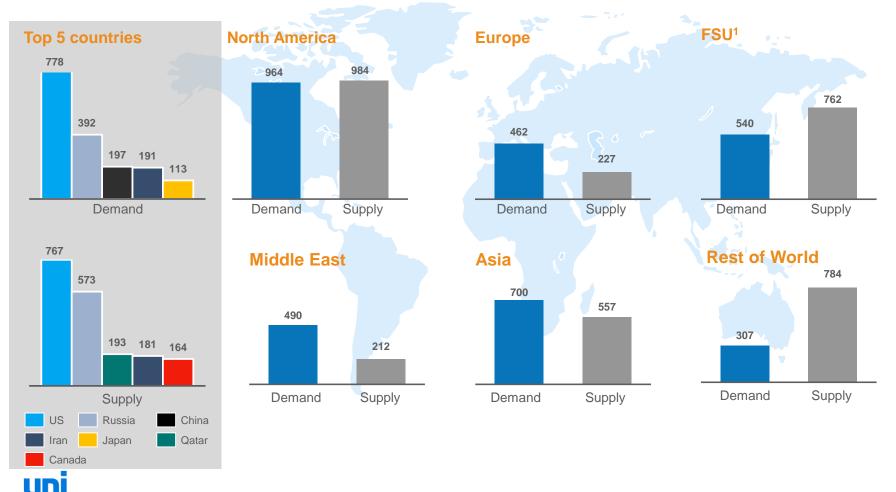
Natural Gas to benefit from transition to low carbon world

- In a transforming energy world natural gas will play a key role supporting the transition towards a low carbon world based on low carbon footprint
- Natural gas is flexible to react quickly to supply imbalances and demand peaks, hence ideally linked with intermittent renewable options



Europe, Middle East and Asia need natural gas imports

Global Demand and Supply (2015, bcm)

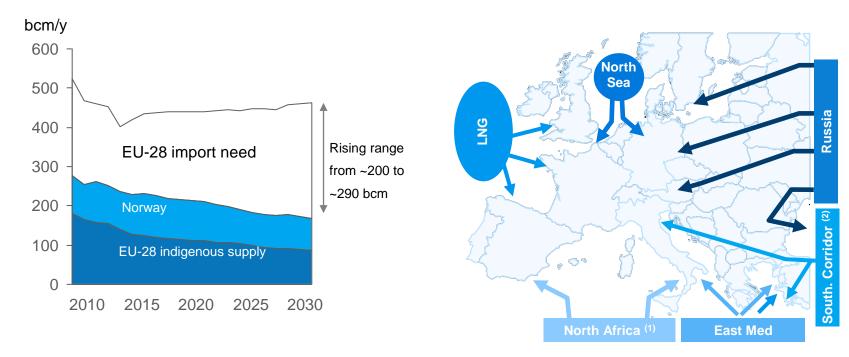


1. Former Soviet Union Source: BP Statistical Review of World Energy 2016

Increasing European import need driven by decreasing indigenous production

EU 28 – Indigenous supply, demand scenarios and import requirements

Current & future supply options



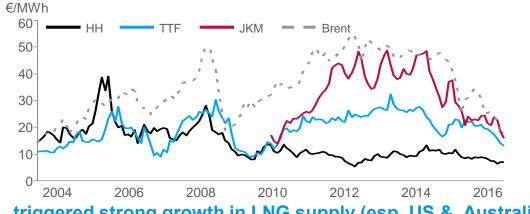
Source: IHS Cera, July 2016. European Long Term Supply & Demand Outlook

1) Pipeline + LNG 2) Azerbaijan, Irak, Iran, Turkmenistan

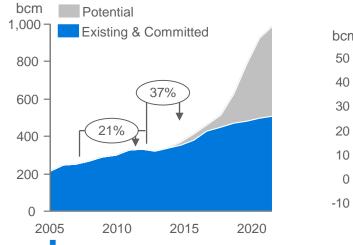


Depending on price environment this increased import may come from LNG

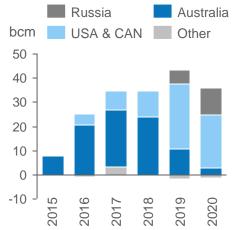
Global gas price development driven by Asian demand...



...triggered strong growth in LNG supply (esp. US & Australia)



UN



Key highlights

End of investment cycle expected to bring price upside

- Low prevailing prices
- Reduced demand growth outlook
 and discouraged new FIDs
- ➡ Leading to price upside post 2020

LNG can be a source to close supply gap - but only if Europe is setting the price

- The strong growth rate of LNG supply will make new supply available
- But Europe is not alone with its increasing need for gas imports

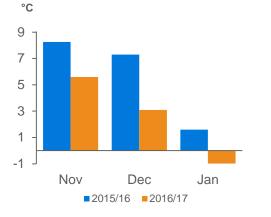
Source: Total, BP; Note: HH (Henry Hub) as reference for the US gas market, TTF (Title Transfer Facility) in the Netherlands for Europe and JKM (Japan Korea Marker) for Asia

Flexible LNG can divert into Asia triggering need for storage and secure supply in Europe

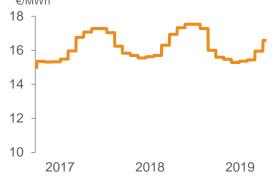
Gas Spot Prices 2016/17 vs. 2015/16 (TTF)



Temperatures Winter Season 2016/17 vs. 2015/16 (Germany)



TTF price forward curve



Gas Storages – Fill Levels (Europe)



Key Highlights

Security of supply more challenging

- 2016/17 showed the pattern of a 'normal' winter with temperatures 1–2°C below previous year's level
- A cold spell and unforeseen demand for gas fired generation brought European gas reserves to unexpected low levels
- Lower indigenous production in Europe will further increase the challenges in extreme scenarios

Market does currently not compensate for security of supply

- Summer/ Winter spread at historic lows. Injection in summer only marginally profitable on the curve
- Spreads/ storage earnings will have to pick up to secure security of supply



Our gas midstream business well positioned to be a key beneficiary

Decarbonisation kick-starts gas to power

- Growing due to long-term coal decommissioning and fuel switching
- > Key driving force for gas demand mid to long term
- Seasonality in gas demand to become even more pronounced
- Gas to power requires safe and flexible gas supply

EU with increased dependence on gas imports

- Further development and commissioning of gas transport projects of common interest
- LNG share and reliable pipeline gas will increase
- As market conditions determine LNG flows LNG is not reliable for security of supply

➡ Importance of gas storage to ensure security of supply





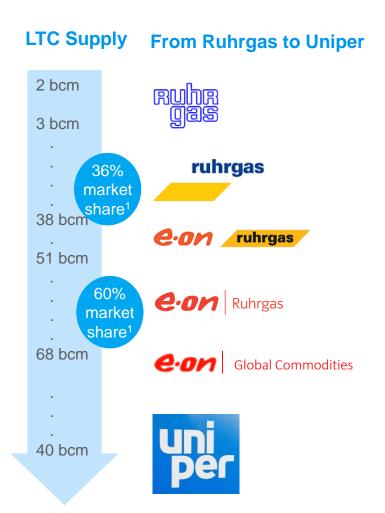
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Uniper – a pioneer in the CE gas sector

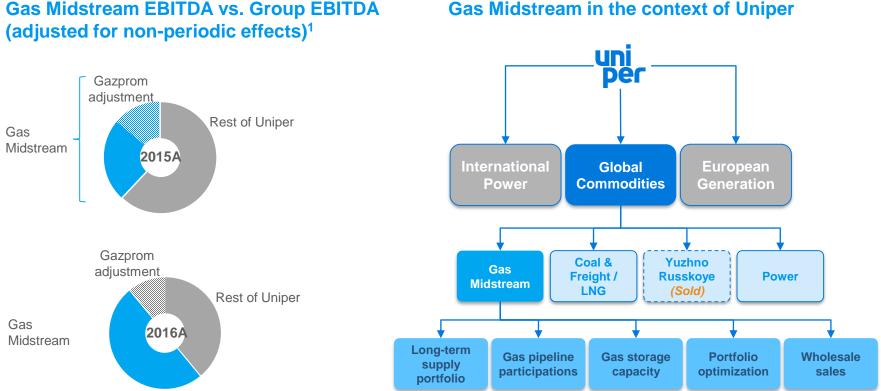
Year Key Highlight

- 1926 Ruhrgas AG has been founded
- 1966 First gas deliveries from the Netherlands
- 1970 First gas supply contract with Russia (Gazprom),
- 1986 Norway (Troll) and Denmark
- 1998 Supply from the UK
- 2002 Takeover by E.ON
- 2005 Signing of Nord Stream I
- 2009 25% share in Yuzhno Russkoye
- 2013 Merger to E.ON Global Commodities
- 2016 Uniper Global Commodities
- 2017 Sale of Yuzhno Russkoye and support for Nord Stream II





Our Gas Midstream business - a strong and reliable earnings contributor



Gas Midstream in the context of Uniper



Note: the 2016 Gas Midstream result has been lowered by the non-periodic effect of the 2016 provision release for the Gazprom renegotiation. 1. Accordingly 2015 Gas Midstream result has been increased by the relevant value.

Well positioned along the entire gas value chain

Strong asset base at the heart of the gas value chain

		Cture shareholdings and b	Vietline Total	
Supply Portfolio	LNG Regas	Transmission	Storage	Sales Portfolio
 Procurement of in total ~1,700 TWh from domestic and foreign producers Thereof roughly 400 TWh contracted long-term with time and volume flex Market-reflective pricing 738TWh 	 Shareholdings in OLT Regasification terminal with regulated earnings LNG bookings in Gate and Grain and access to terminals in Spain with the ability to bring additional volumes into the market 	 Shareholdings in major European transit pipelines Bookings across Europe: Hub-to-hub Market entry-exit Storage entry-exit 	 #3 storage player in Europe with a flexible, diversified storage portfolio 8.2 bcm of storage capacity Uniper Market Share ~30% 21% 3% 25bcm 8bcm 5bcm 	 Gas Sales of in total ~1,700 TWh, thereof around 20%² contracted to traditional sales customers with specific demand patterns More than 1,000 customers, mainly municipal utilities, industrials and power plants Gas, power, energy related services Market share ~40%



- 1. Reflecting annual contracted quantity (ACQ) and not minimum offtake obligation
- 2. Volume depending on gas to power demand and temperatures

Integrated business model designed to achieve maximum value based on optionality

Flow

Flexible supply portfolio of various sources



Market access



Optimization

Complex management of the value chain between supplier and customer with optimization of supply agreements, transport, storage, markets and customers offering numerous flexibilities in terms of

- i. Volume
- ii. Timing
- iii. Location



Market Channels

Wholesale sales portfolio

TSO products

Other customers & counterparties

- Hub sales
- Tailored products
- Structured & Options



Content

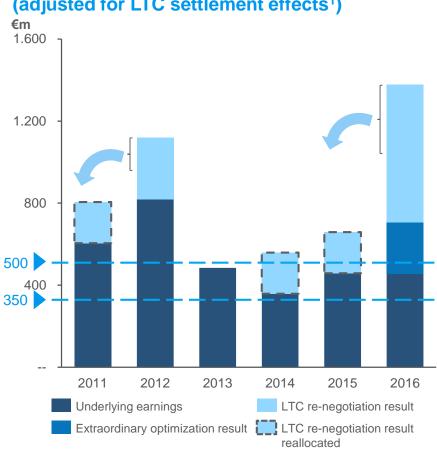
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Underlying EBITDA level of ~€350 - 500m



Underlying earnings plateau (adjusted for LTC settlement effects¹)

Shift of earnings



Portfolio de-risking

• Spread-risk between indexation in gas LTCs and sales contracts has been widely eliminated

Reduction of asset value

- Reduction in summer/ winter spreads
- Reduction in volatility

Increase of Optimization earnings

- Strong increase in liquidity at trading hubs
- Broader portfolio due to new products/ markets
- Consequent execution of make-or-buy decision

1. To create like-for-like comparison historically reported data has been adjusted. Difference to reported figures based on exclusion of disposals of OGE, SPP and IUK; Nord Stream I included until end of 2015

Sustainable earnings power



1. Gross Margin does not include any OPEX

2. Note: includes EBT from infrastructure

Infrastructure

 Stable earnings from long-term marketed infrastructure investments

Supply, Sales and Asset Margin

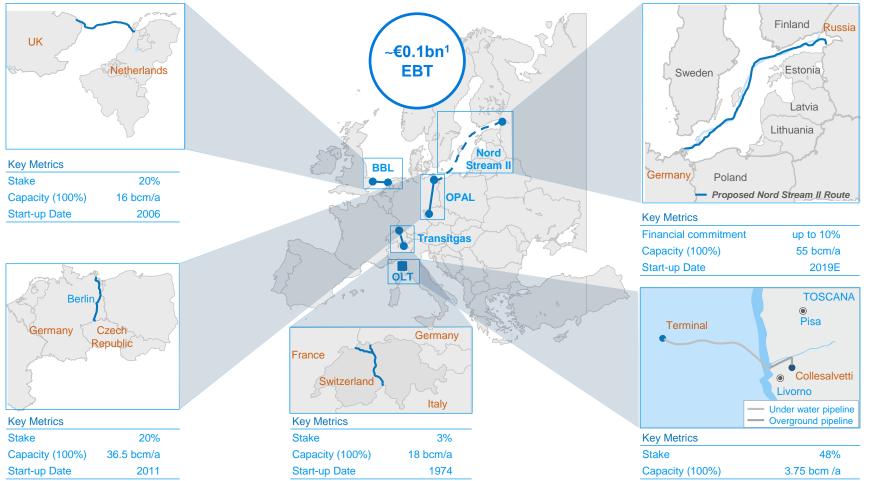
 Structural earnings from supply, sales and asset margin based on commodity margin, value from our storage /transport assets as well as TSO products

Optimization Margin

 Proven earnings from Optimization Margin based on our portfolio approach including market elements

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A Reliable earnings based on minority infrastructure shareholdings



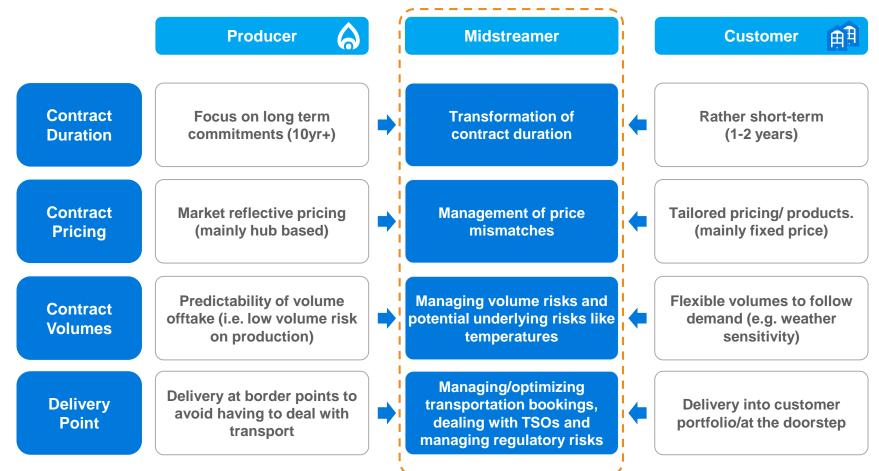


B Structural earnings from Supply, Sales and Asset Margins

1. Commodity margin 2. Storage: intrinsic value Supply & Sales Business delivers Ability to capture the spread between structural margin on the back of seasons as base driver, complemented by midstream services monthly shape, multi-year and location value Earnings dependent on the magnitude and volatility ~€200 -300m gross margin 4. Earnings from TSO products 3. Transport: intrinsic value Ability to capture spreads between Based on the large and diversified assets • different locations Uniper delivers security of supply for (e.g. NBP/TTF, NCG/AOC) network operators Therefore intrinsic value as part of or Current market regime requires mid and short term services which are offered stable earnings base



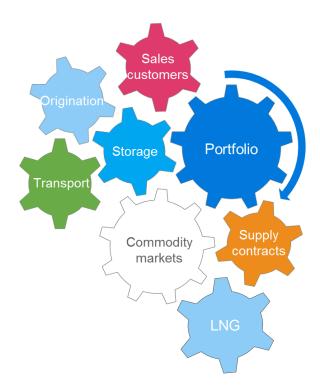
Value adding function by managing risks between producer and customer products





B

C Proven earnings power from portfolio optimization of ~€300-400m gross margin



Portfolio Effects

Broad toolbox and broad portfolio with partly offsetting positions allow to generate additional value at limited risks

Structured Optimization of flexibility

Time (storage) and location (transport) optimization generates additional value

Asset backed Optimization

Assets enable to take market views on gas prices as well as spreads

Capturing significant additional value from diversified portfolio



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Growth: Origination of new business activities (examples)

New ventures

LNG for Trucks



LNG services



 Providing Services e.g. to LNG Suppliers, Infrastructure & Hedge Funds

Iveco and Uniper open first

LNG fuelling station for

· Savings on fuel costs and

environmental benefits

trucks in Germany

more pronounced

New technologies: examining technical and economic Feasibility of green fuels

- Power-to-Gas technology utilizing renewable electricity produces green hydrogen and oxygen (electrolysis)
- Green hydrogen can be fed into the natural gas grid or used directly in refineries and mobility to reduce emissions and to integrate renewables

Organic growth

Go East



New LNG Opportunities





Strategic investment

• Source of very stable longterm cash flows

Expansion of operations into

Eastern Europe to increase

Uniper's market share

based on existing assets

• Expansion of operations into

middle east creating sales

outlets on global LNG-to-

Power & optimizing Regas

Shah Deniz LTC



 A long term gas supply has been signed with the Azerbaijani state oil company SOCAR



Uniper gas midstream – core EBITDA of €350-500m p.a. ...

Well positioned for a decarbonizing world Long-term upsides from recovery of gas storage

Growth potential in global LNG markets

Stable earnings from infrastructure

Reliable margins in midstream core

Additional value creation from optimization

... and upside/ growth potential



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