

“LNG as future transport fuel in Europe”

4th Annual Baltic Energy Summit

Tallinn, 14th November 2012

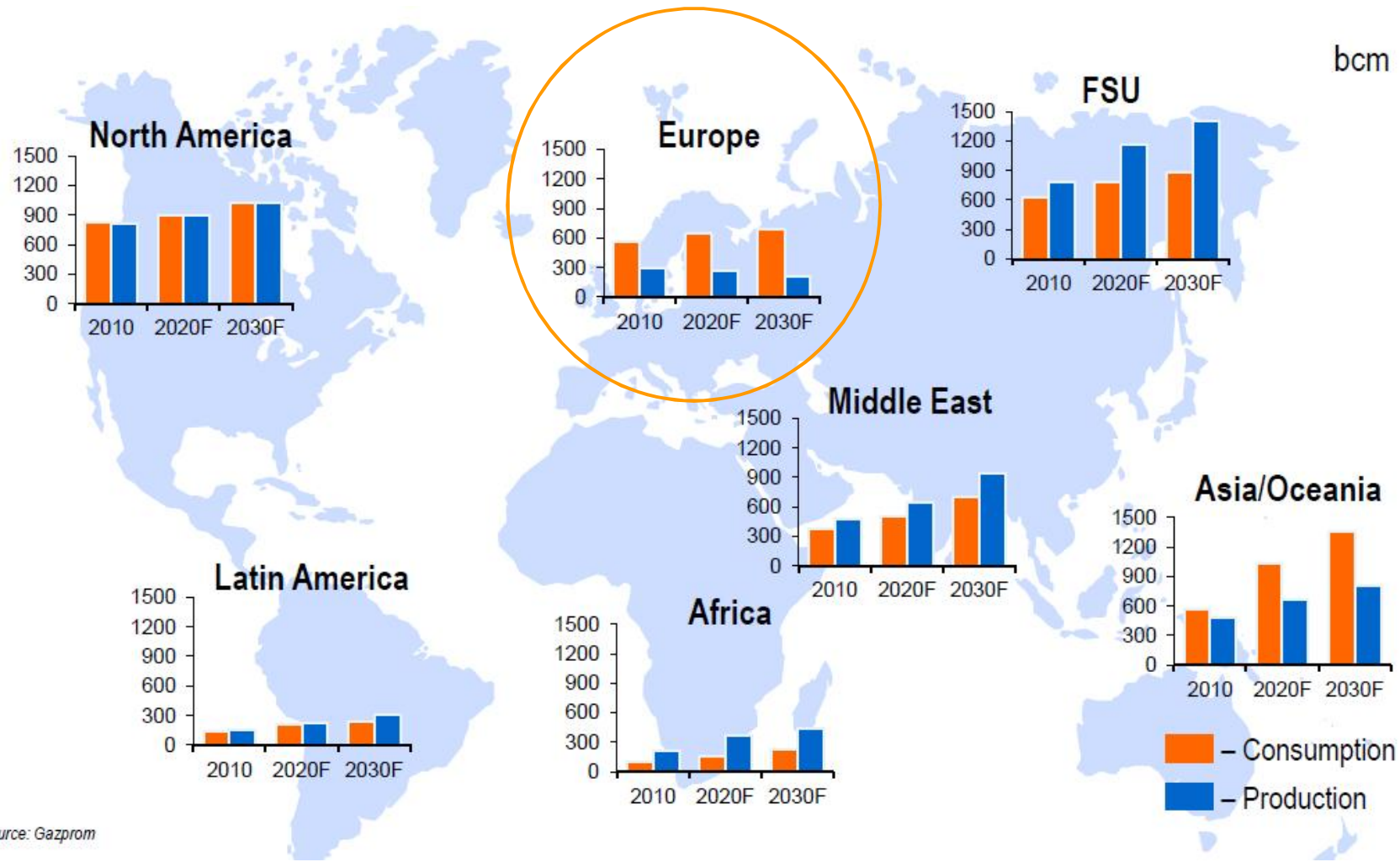
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Global outlook for Natural Gas remains positive



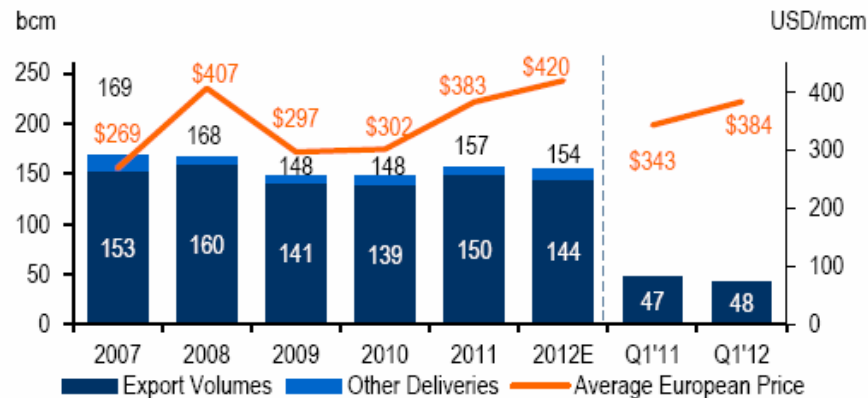
Source: Gazprom

Europe will remain an important customer for Russian natural gas.

Increasing demand for Russian supplies expected in Europe



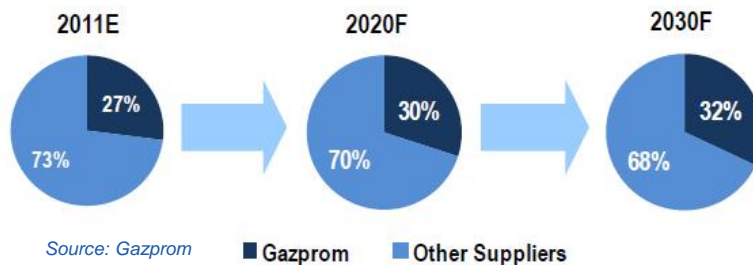
Gazprom Group gas deliveries to Europe



GAZPROM believes in an increased demand for Russian natural gas due to:

- Declining European indigenous production needs to be compensated
- Development of ecological and economical power production landscape providing security to fluctuating supply from renewables and PV
- Increasing natural gas demand in the transportation sector in order to comply with emission targets

Projected Gazprom European market share



Especially small scale LNG will offer EU customers a significant benefit to comply with existing regulations

EU emissions reduction agenda drives development of small scale LNG market



- EU-6 (2013/2014) pushes development for LNG as fuel for heavy-duty road transport (CO₂, NO_x, particulate matter)
- Automotive industry investing in natural gas models to achieve EU-imposed average CO₂-fleet targets (120g CO₂/km by 2015 and 95g CO₂/km by 2020)
- Sulphur Emission Control Areas (SECA from 2015 in Baltic & North Sea) drive development of LNG as bunker fuel opposed to MGO or scrubber-technology (SO_x)



Small scale LNG is an available and environmentally friendly solution to Europe's ambition to significantly reduce emissions.

What makes small scale LNG a unique product for our customers?



Small-Scale LNG

- Liquefaction capacity of <0.5 MMTA
- Provides regional supply directly to end-users in areas inaccessible by other means (pipelines, etc.) or consumers requiring liquid fuel
- Distribution via LNG tanker, feeder vessel, bunkering barge or truck
- Simplified storage requirements
- Allows adjustments to annual delivery contracts, minimizing take-or-pay risk



10,000 m³ Multigas Carrier



12,000 m³ Multigas Carrier

Mid & Large-Scale LNG

- Liquefaction plant capacity >0.5 MMTA
- Provide Base Load LNG
- Intercontinental transport markets via transoceanic tankers
- LNG is regasified at distant import terminal



Key factors for the development of LNG demand



Regulation and policies



- ECA or emissions control regulations introduced by policy makers

Competitive Pricing



- Relative price levels of traditional fuels (HFO, MGO, Diesel) in the bunkering and transportation sector

Availability of vehicles/ships



- Ship and automotive manufacturers to invest in development of natural gas engines and integration of LNG technology

Availability of infrastructure

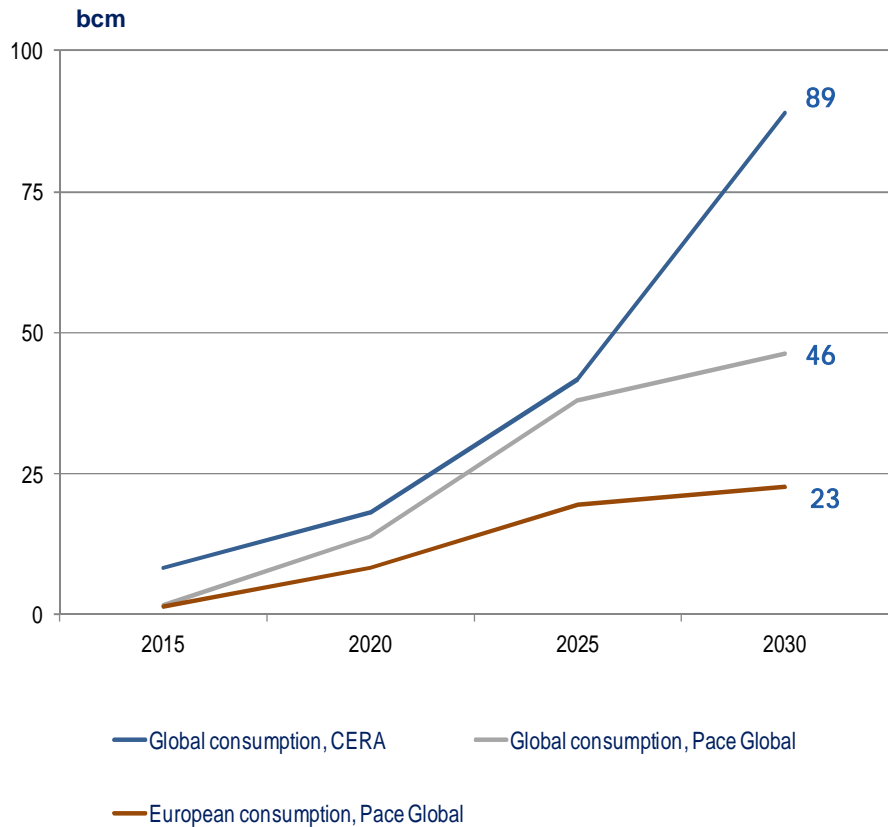


- Development of small scale LNG logistics: Liquefaction, storage and distribution infrastructure

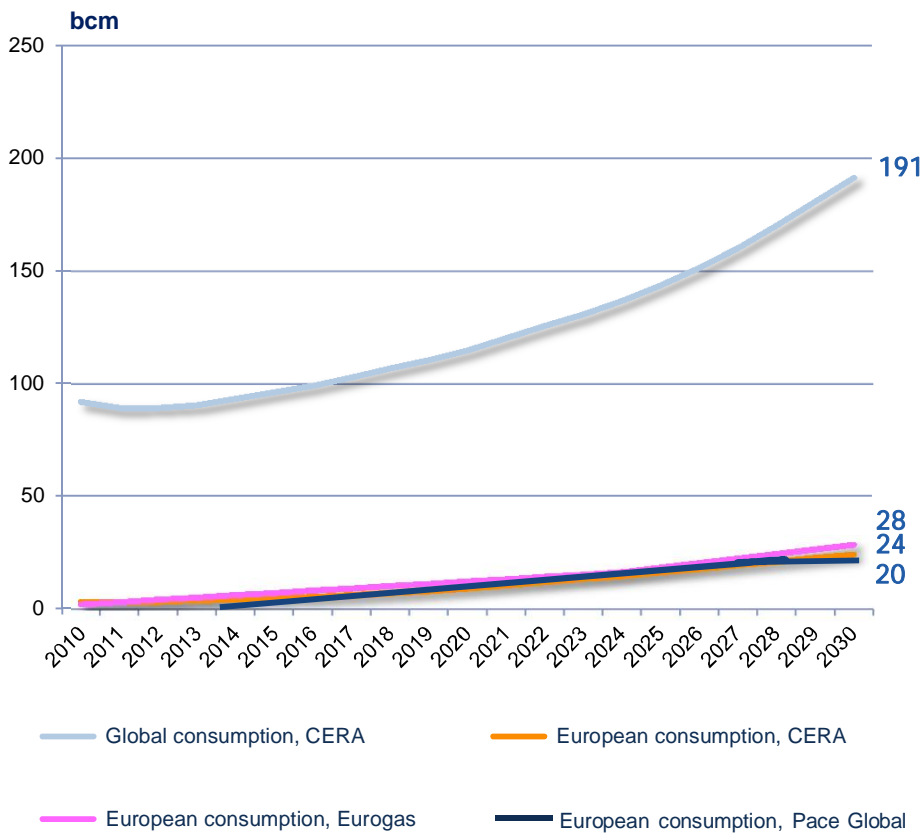
EU demand for small scale LNG will reach conservatively 43 bcm p.a. in 2030



Anticipated demand - LNG Bunkering



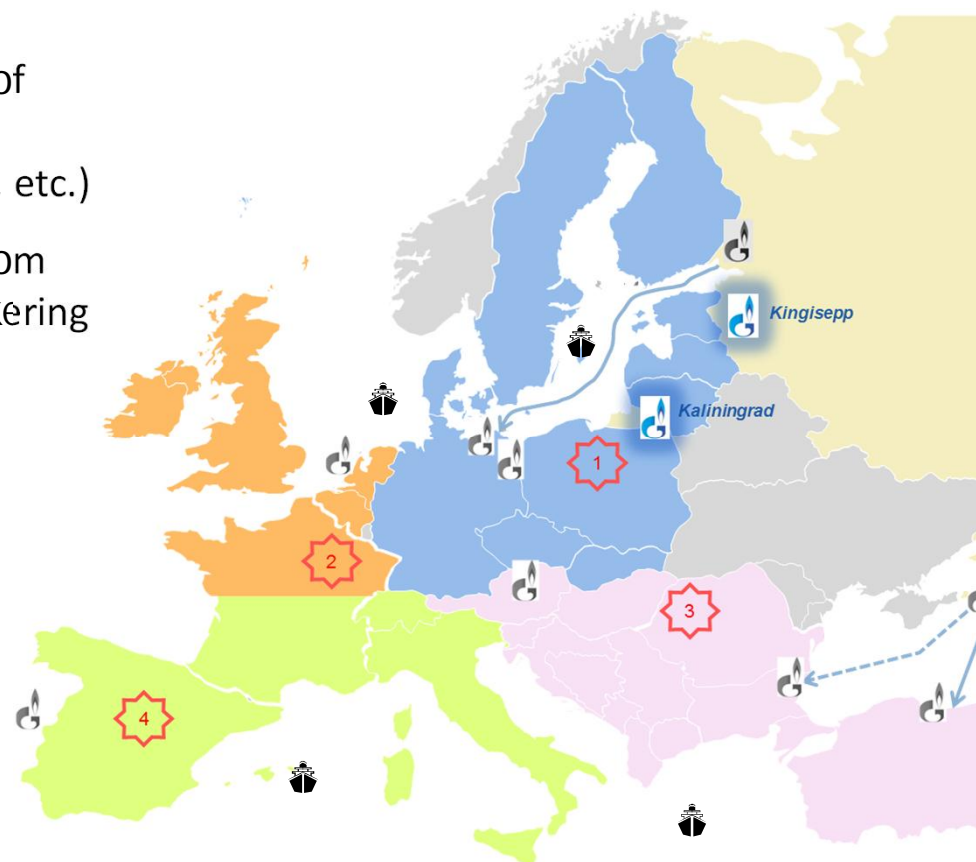
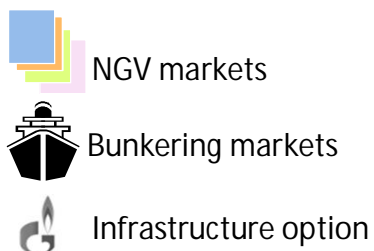
Anticipated demand – LNG Road Transport



Joined efforts needed to create sufficient infrastructure



- Several options for the implementation of liquefaction projects under investigation (e.g. Kaliningrad region, Primorsk region, etc.)
- LNG growth will be driven by demand from international heavy duty transport, bunkering markets and off-grid customers



Baltic region is part of Gazprom's priority cluster for North-Eastern Europe.

Small scale LNG is a proven technology



Volvo FM460 LNG



Solbus Solcity LNG



IVECO Stralis LNG



IVECO Stralis LNG



GAZPROM Germania's mobile LNG-filling station with IVECO Stralis LNG at the IAA Commercial Vehicles in Hanover (September 2012)



Scania LNG



LNG-Tankstelle in Sweden

Existing LNG filling stations in Europe



LNG public stations in Spain

Name	Owner	Address	Town	Province	Fuel category
HAM	HAM	N-II, Km. 582	Abreña	Barcelona	LNG/CNG
TRANS. MONFORT	MONFORT	C/ Dinamara, Ciudad del Transporte	Castellón de la P.	Castellón	LNG/CNG
HAM	HAM	N-II, Km. 117. E.S. Petromirales	Tormocha del C.	Guadalajara	LNG/CNG
GN TRUCK	VICLURA	N-I, Km. 419	Olaberria	Guipuzcoa	LNG/CNG
GNF	GNF	Del. Int. C/ Euzkadi	Lleida	Lleida	LNG/CNG
BIONET	HAM	Biggest in Europe, 85 trucks fuelling	Tarragona	Tarragona	LNG/CNG
VIA AUGUSTA GAS	VIA AUGUSTA	N-II, km 304	Zaragoza	Zaragoza	LNG/CNG
GHC	GNF	N-III Km 11,8	Rivas	Madrid	LNG/CNG
J. SANTOS	GNF	N-II Km. 47,5	Allovera	Guadalajara	LNG/CNG
DISFRIMUR VALENCIA	GNF	Ribarroja	Valencia	Valencia	LNG/CNG
DISFRIMUR ALICANTE	GNF	San Isidro	Alicante	Alicante	LNG/CNG
EUROCAM	GNF	N-I	Vitoria	Alava	LNG/CNG

LNG public stations in Portugal

Gold Energy			Mirandela	Tras os Montes	LNG/CNG	Opening end 2012
Gold Energy			Maia	Porto	LNG/CNG	Opening end 2012

LNG public stations in The Netherlands

Vias Logistics			Oss	Noord Brabant	LNG	
Selland Olie	LNG 24	Kloofstraat 7	Zwolle	Ovrijssel	LNG	Need special card
De Kook	Rolande/De Kook	Heschweg 223	Oss	Noord Brabant	LNG/CNG	Oct. 2012. Need sp. card
Rolande LNG	Rolande LNG	Schepersweg 1	Tilburg	Noord Brabant	LNG/CNG	Oct. 2012. Need sp. card

LNG public stations in Italy

Concess. TotalErg (costr. Varzetti)		Borgata Marocchi statale 29 km 24 - 57/0	Poirno	Torino	LNG/CNG
Concess. Esso (costr. HAM Italia)		via Prati, 24/a	Calderara di Reno	Bologna	LNG/CNG
Concess. ENI R&M (costr. Varzetti)		via Circonvallazione Est, 18/a	Villafalletto	Cuneo	LNG/CNG
Kosliner GmbH (costr. Varzetti)		via Brennero (SS 12) uscita autostr. Vama	Varna	Bozano	LNG/CNG
Concess. ENI R&M (costr. HAM Italia)		via della Borghesiana	Roma	Roma	LNG/CNG
F.lli Ratti (costr. Varzetti)		Strada Statale per Voghera, 75	Tortona	Alessandria	LNG/CNG

LNG public stations in Sweden

Fordonsgas			Göteborg	Göteborg	LNG/CNG
Statoli/AGA			Järna	Söderlänne	LNG/CNG
Preem/E.ON			Malmö	Malmö	LNG

We are dedicated to developing this market together with our customers



Create value proposition for customers



- Guarantee lower Total Cost of Ownership than operations on Diesel, HFO or MGO whilst at the same time fulfilling environmental objectives

Provide sustainable and competitive supply of LNG



- Provide sustainable and competitive supply of LNG to the bunkering and transportation sector in the Baltic region

Develop dedicated infrastructure based on long-term partnerships



- Attract economical and political support for development of alternative fuel projects in Europe
- Develop LNG infrastructure (liquefaction, hubs, filling stations) in proximity to our European customers

Thank you for your attention!

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