



## LNG market update ●

Surge in LNG supply creates opportunities to open new markets

**Royal Vopak – Analyst Day 2017**

Ton Floors, Global LNG Director

12 December 2017



# Forward-looking statement

This presentation contains 'forward-looking statements', based on currently available plans and forecasts. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future, and Vopak cannot guarantee the accuracy and completeness of forward-looking statements.

These risks and uncertainties include, but are not limited to, factors affecting the realization of ambitions and financial expectations, developments regarding the potential capital raising, exceptional income and expense items, operational developments and trading conditions, economic, political and foreign exchange developments and changes to IFRS reporting rules.

Vopak's outlook does not represent a forecast or any expectation of future results or financial performance.

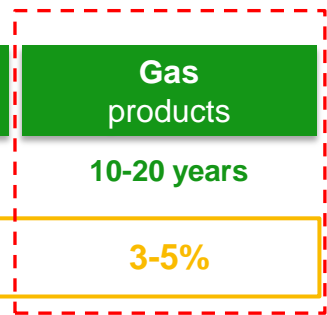
Statements of a forward-looking nature issued by the company must always be assessed in the context of the events, risks and uncertainties of the markets and environments in which Vopak operates. These factors could lead to actual results being materially different from those expected, and Vopak does not undertake to publicly update or revise any of these forward-looking statements.

# Vopak's well-balanced global portfolio

Oil products	Chemical products	Industrial terminals	Vegoils & biofuels	Gas products
0-5 years	0-5 years	5-20 years	0-3 years	10-20 years
40-45%	20-25%	20-25%	5-7.5%	3-5%

Typical contract duration per product / terminal category

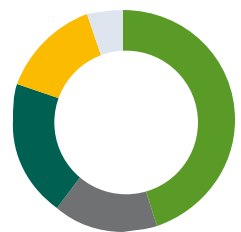
Share of 2016 EBITDA\*



Netherlands



EUR 287 million



EMEA



EUR 121 million



Asia



EUR 297 million



Americas



EUR 121 million



LNG



EUR 28 million



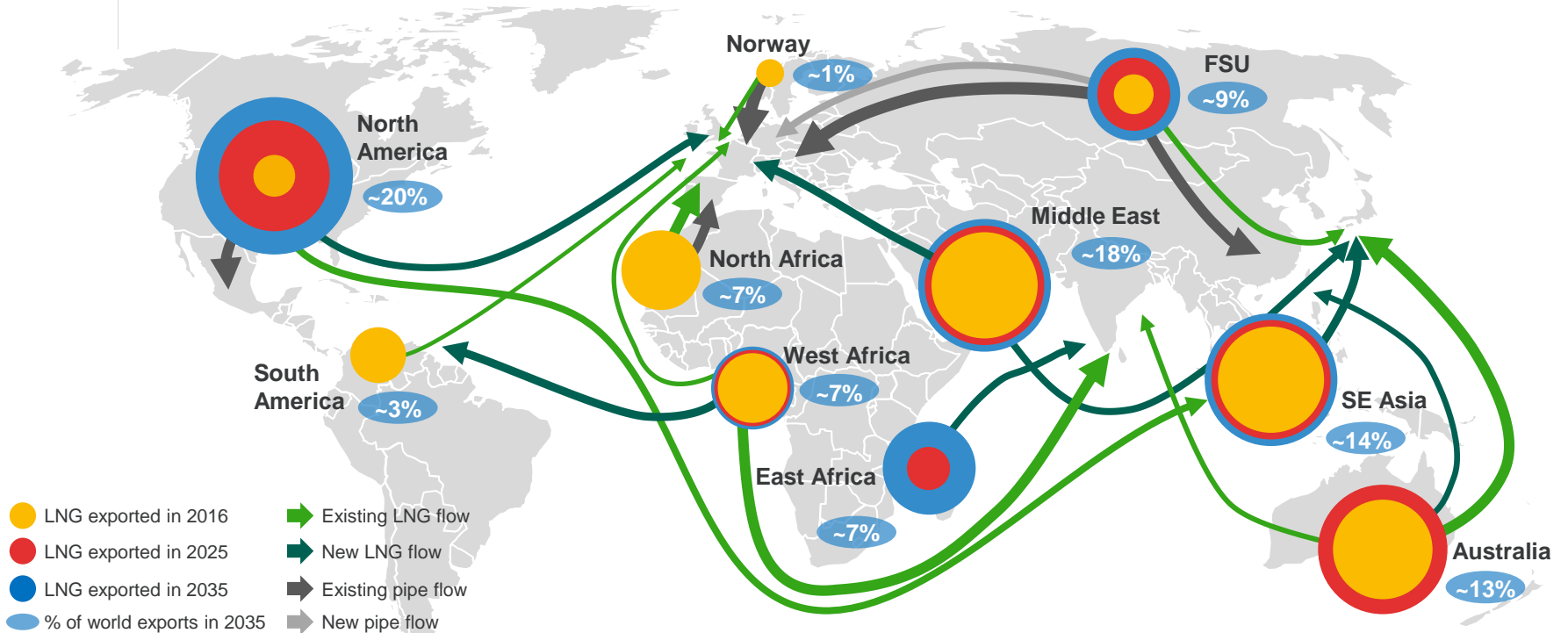
FY 2016 EBITDA\*

- Oil products
- Chemical products
- Industrial terminals
- Vegoils & biofuels
- Gas products

\*Excluding exceptional items; including net result of joint ventures

# Reshaping of the LNG market

A new wave of LNG supply is expected, initially predominately coming from the US and Australia



The size of the circles depicts the supply actual/forecasts for 2016, 2025 and 2035 for the largest LNG exporters. The sequence of concentric circles represents the growth dynamic of the exporter. Existing exporters that are forecast to expand have yellow circles within red and blue circles. Existing exporters that have no growth forecast have yellow circles. New exporters with no 2016 exports have red and blue circles only

Source: IHS 2017

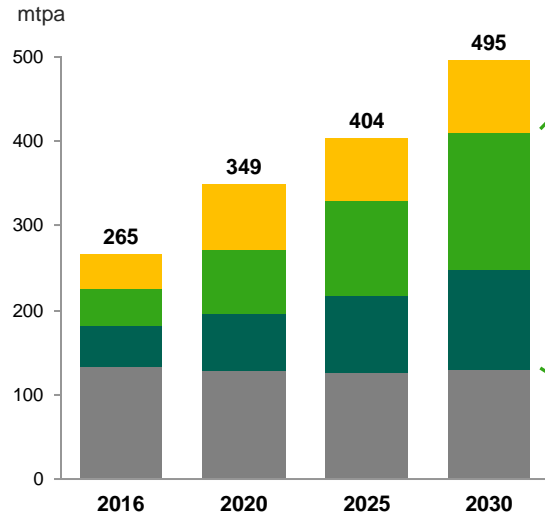
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# Increasing LNG demand

70% of LNG demand growth comes from new importing countries, mainly driven by increasing energy demand

LNG demand by region/country

Japan, Korea, Taiwan
  Recent & likely entrants  
 China, India
  Europe



## 50% of the demand growth in 16 countries with Vopak presence

China	11%	India	11%
Indonesia	5%	Thailand	5%
Malaysia	4%	Singapore	3%
Germany	3%	Pakistan	2%
Bahrain	2%	UAE	2%
Vietnam	1%	Colombia	1%
Panama	<1%	Brazil	<1%
Mexico	<1%	S-Africa	<1%



## 20% of the demand growth in countries with no Vopak presence

Puerto Rico	Poland
Kuwait	Egypt
Jordan	Dom Rep
Ghana	Bangladesh
Namibia	El Salvador
Morocco	Cote d'Ivoire
Uruguay	Senegal
Cuba	Philippines
Chile	Argentina

# LNG infrastructure demand

An increasing demand for dedicated and fit-to-market infrastructure solutions

## Mature markets

### Drivers

Various hinterland markets  
LNG trading  
Break bulk distribution  
Transport / bunkering



**Hub terminal**  
E.g. Gate

## Growth markets

### Drivers

LNG-to-power  
Political – security of supply  
Industrial



**Single-customer terminal**  
E.g. Altamira

**FSRU 175,000 cbm**

## Emerging markets / small islands

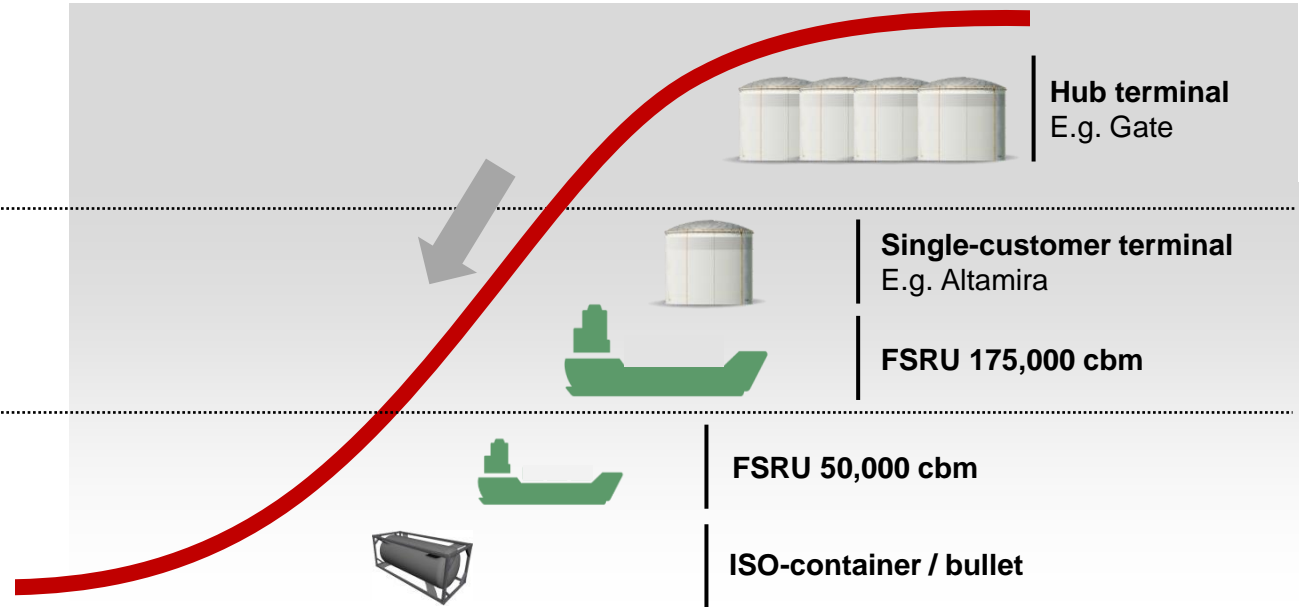
### Drivers

Bunker market  
Industrial  
LNG-to-power



**FSRU 50,000 cbm**

**ISO-container / bullet**



# LNG value chain

Specialization has increased the number of parties in the LNG value chain



## Production

0.5-2 \$/Mbtu

Focusing on  
**low cost gas**



## Liquefaction

1-2 \$/Mbtu

**Simplifying designs**  
(modular, small scale)



## Trading

0.2-0.4 \$/Mbtu

**Increasing flexibility**  
of portfolio



## Shipping

0.5-3 \$/Mbtu  
DES Asia

**Reducing**  
Boil-off



## Regasification

~0.5 \$/Mbtu

**Operating floating**  
regas (FSRU)



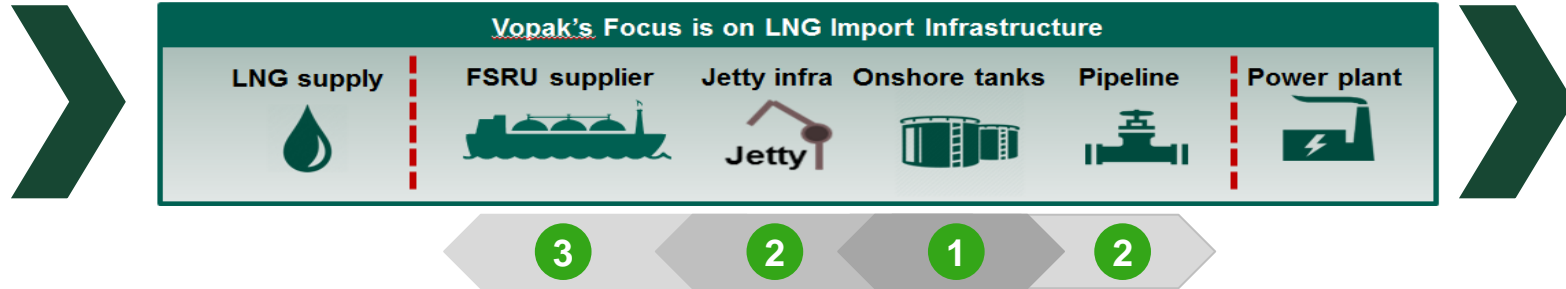
## Marketing

B2B 0.2-0.4 \$/Mbtu  
B2C 1.5-2.5 \$/Mbtu

**Levering digital**  
platforms

# Vopak's vital role in the chain

Vopak continues to look for opportunities to strengthen its presence as a service provider in the LNG infrastructure market



## 1 Onshore terminal infrastructure

- Continued strategy pursuing greenfields, acquisitions and further development of current terminals

## 2 Infra-integrator

- Pursue projects where Vopak plays vital role as infra-integrator, leveraging on key onshore capabilities (e.g. jetty infra, pipelines) and our global network
- Growth as infra-integrator can be accelerated by acquiring a stake in single projects

## 3 FSRUs

- Vopak LNG aims to capture the FSRU market momentum on a project-to-project basis by investigating a joint venture or acquisition



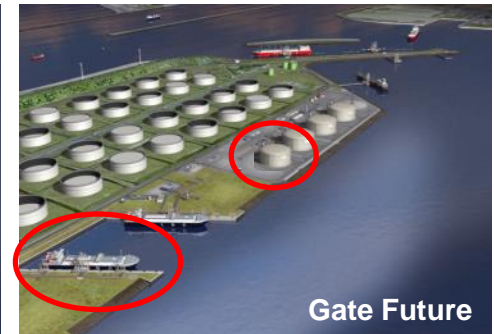
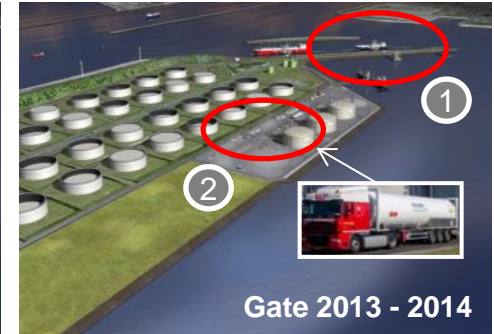
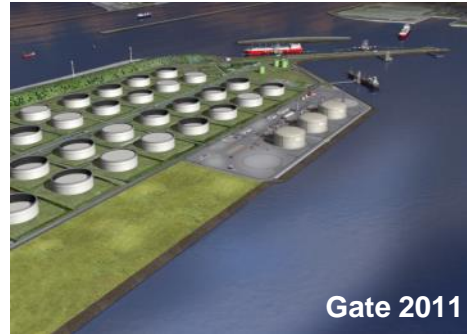
# Development of existing terminals

## Case study: Rotterdam Gate Terminal

- 1 **2013:** Refitted existing jetties for medium size vessels (un)loading
- 2 **2014:** Adding truck loading facility
- 3 **2016:** LNG Break Bulk Rotterdam; expansion development jetty 3

### Lessons learned:

- Built in time and budget
- Multiple customers
- Multiple services
- Comingled product
- Right size engineering



# LNG Hub terminal business model

From import to full (hub) service in five years



- Unloading and reloading (including transshipment)
- Additional customers for reloading
- Subordinated slots

- Multiple customer model or dedicated LNG-to-power and/or industrial facilities
- Experienced in commingled storage tanks
- Suppliers, portfolio players, traders, end-users and city gas players

- Different services for further distribution
- Additional customers for LNG trucking, bunkering and break-bulk

# Key messages

## Surge in LNG supply creates opportunities to open new markets

- The global natural gas market is undergoing a major transformation
- A new wave of LNG supply is expected, initially predominately coming from the US and Australia
- An increasing LNG demand growth is expected from new importing countries, mainly driven by increasing energy demand in Asian markets
- Vopak continues to look for strategic opportunities to strengthen its presence as a service provider in the LNG infrastructure market
- GATE a perfect example for future opportunities and 'full potential'



## Questions & Answers ●

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