



OIL & GAS

# Global and regional LNG market perspectives

IENE International Workshop

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# Our vision: global impact for a safe and sustainable future

MARITIME



OIL & GAS



ENERGY



BUSINESS  
ASSURANCE



SOFTWARE



RESEARCH & INNOVATION



# Addressing challenges in the oil and gas industry



Low oil price,  
high cost

Safety and  
environmental  
issues

Technology  
development

Ageing assets  
and  
performance  
issues

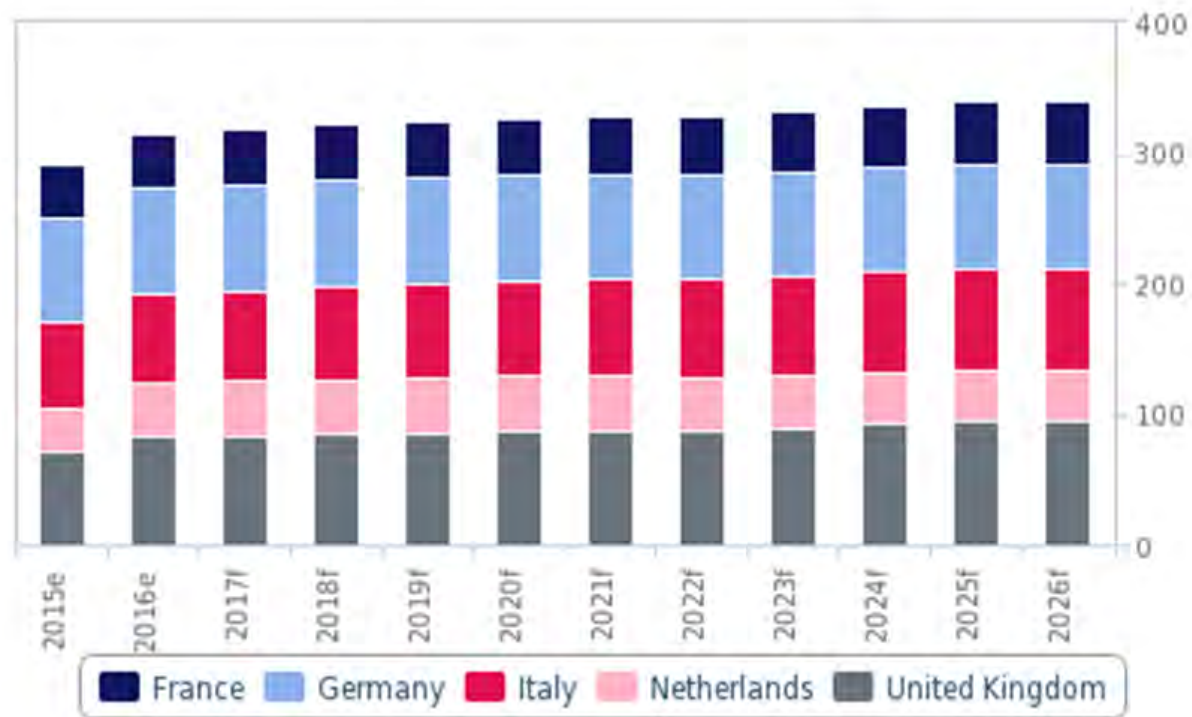
Less access to  
easy  
oil and gas



# European gas markets and main drivers

## European Gas Demand Growing

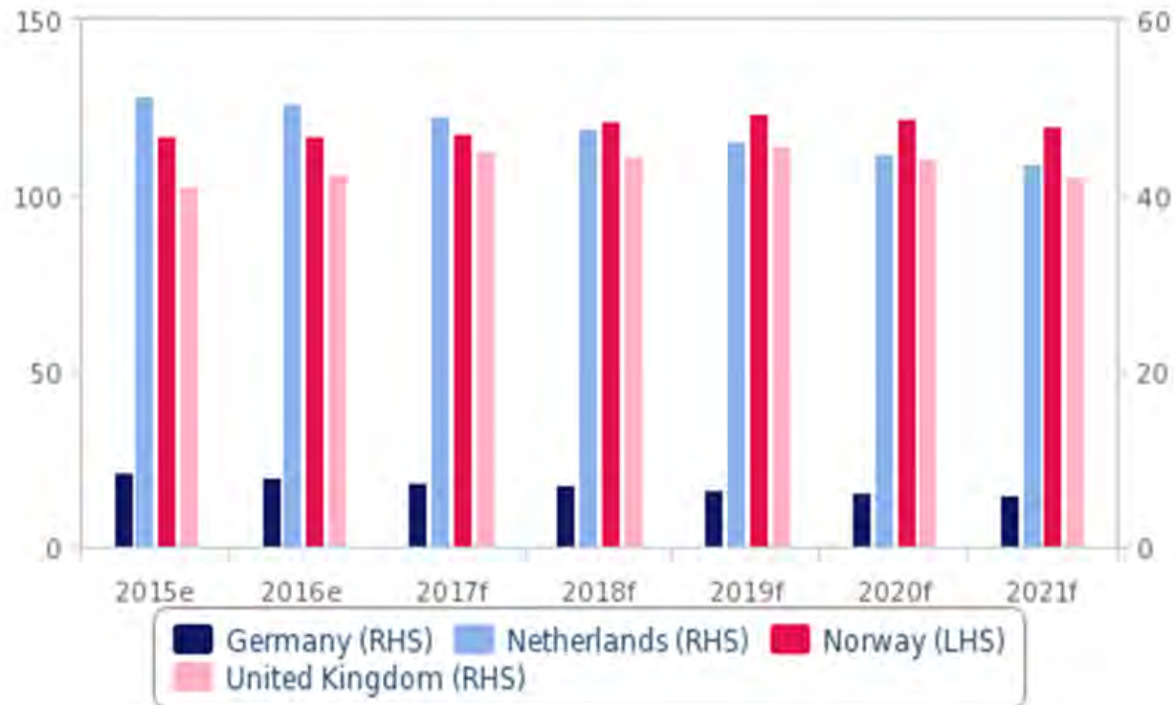
Dry Natural Gas Consumption, bcm



e/f= BMI estimate/ forecast. Source: National Sources, BMI

## UK & Norway To Grow, Netherlands & Germany Fall

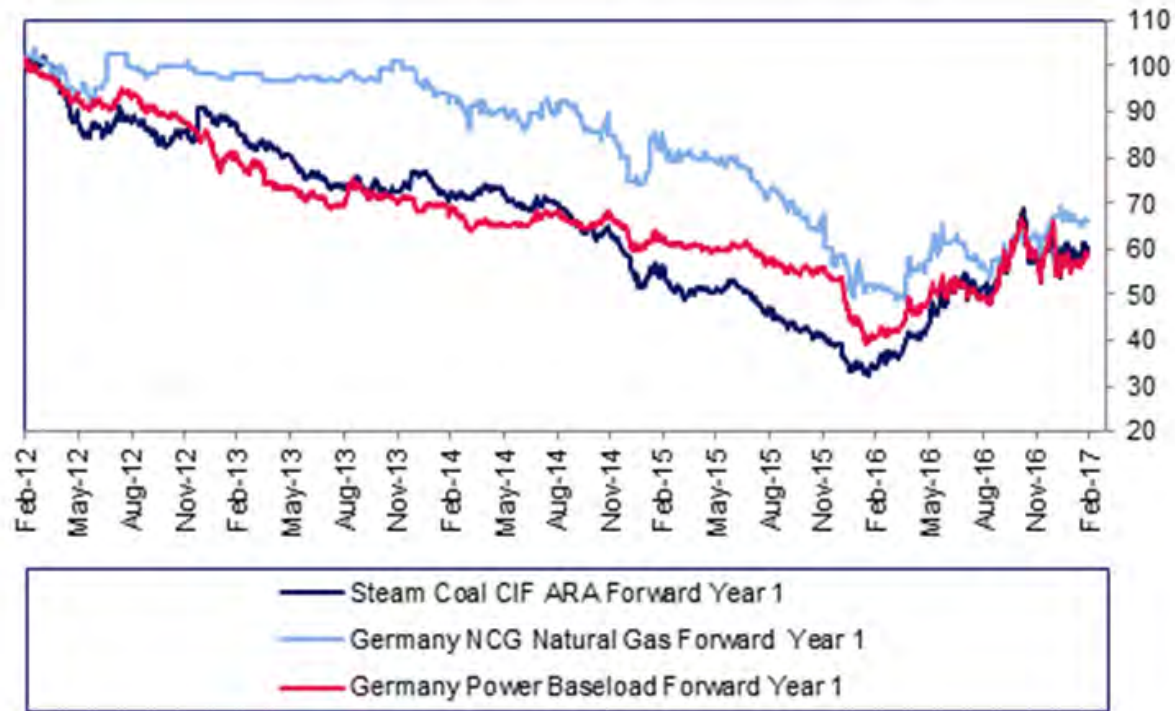
Dry Natural Gas Production, bcm



e/f= BMI estimate/ forecast. Source: National Sources, BMI

# Spot on gas markets – price development

Germany - Gas, Coal And Electricity Prices - Normalized As Of February 29 2012



Source: BMI, Bloomberg



## 6 strategic drivers in European gas infrastructure

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Gas Demand

Security of supply

Globalizing LNG

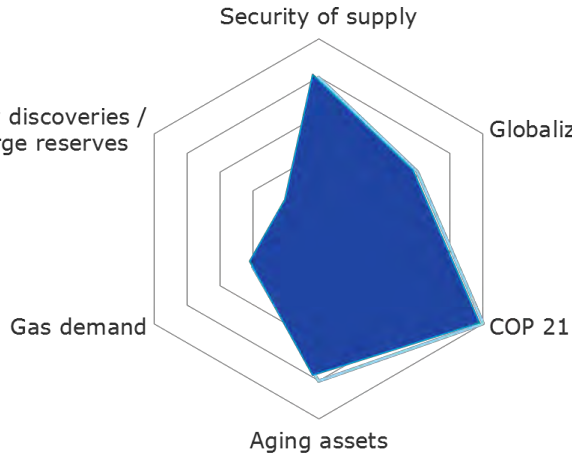
Decarbonisation – Paris COP 21

Ageing Assets

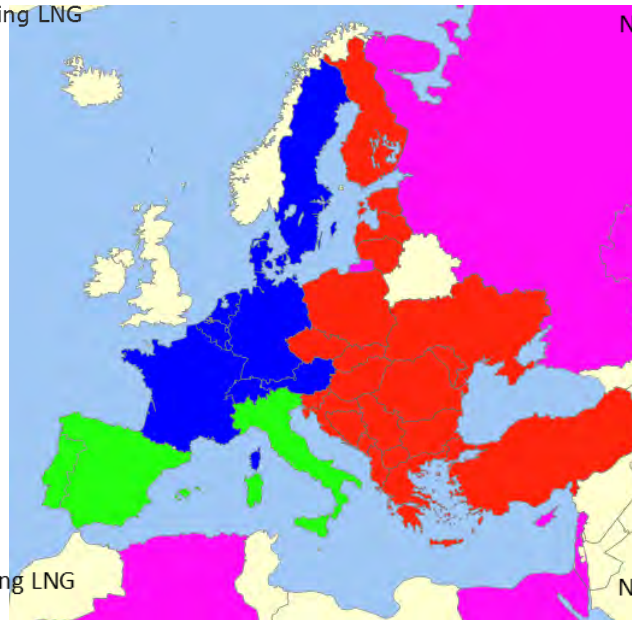
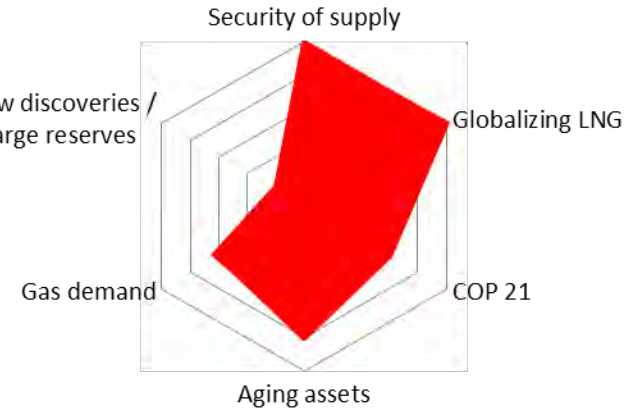
New discoveries (upstream)

# Europe has a diverse gas market based on 6 drivers

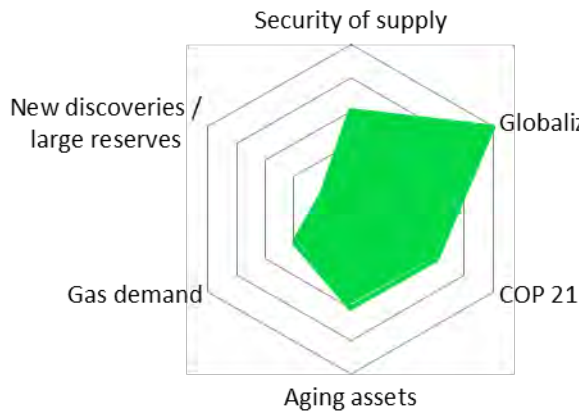
## N&WE



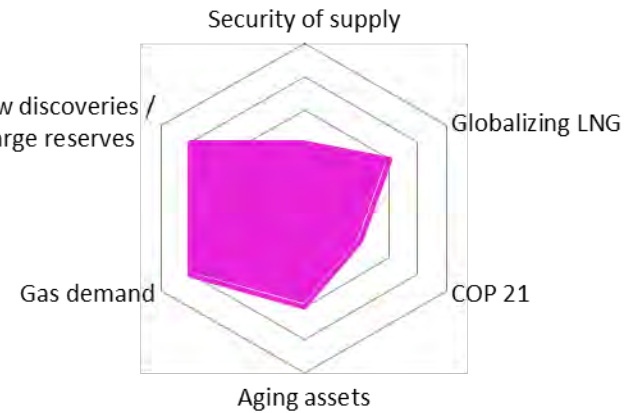
## Central & Eastern



## Southern



## Producers/ Exporters

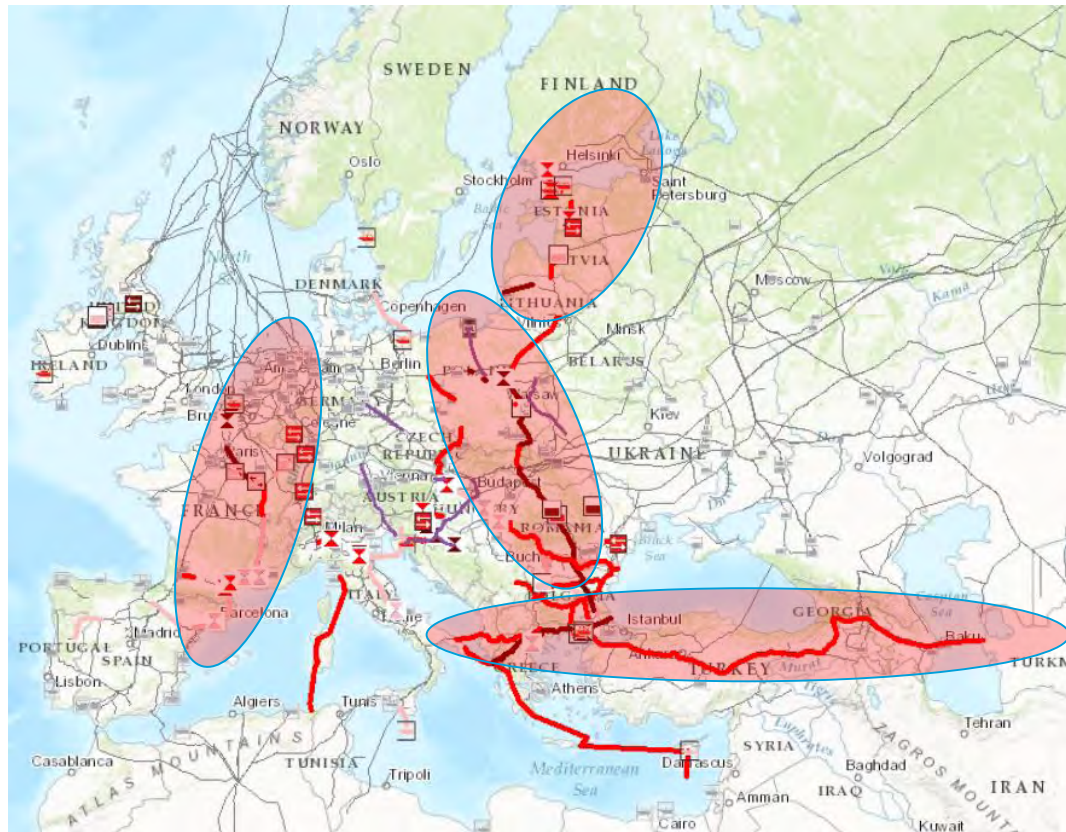


# 3 major influences on European markets within 3-5 years

More interconnected European markets



Directorate-General  
for Energy



## 3 major influences on European markets within 3-5 years

More interconnected European markets



Caspian gas to Europe via the Southern gas corridor

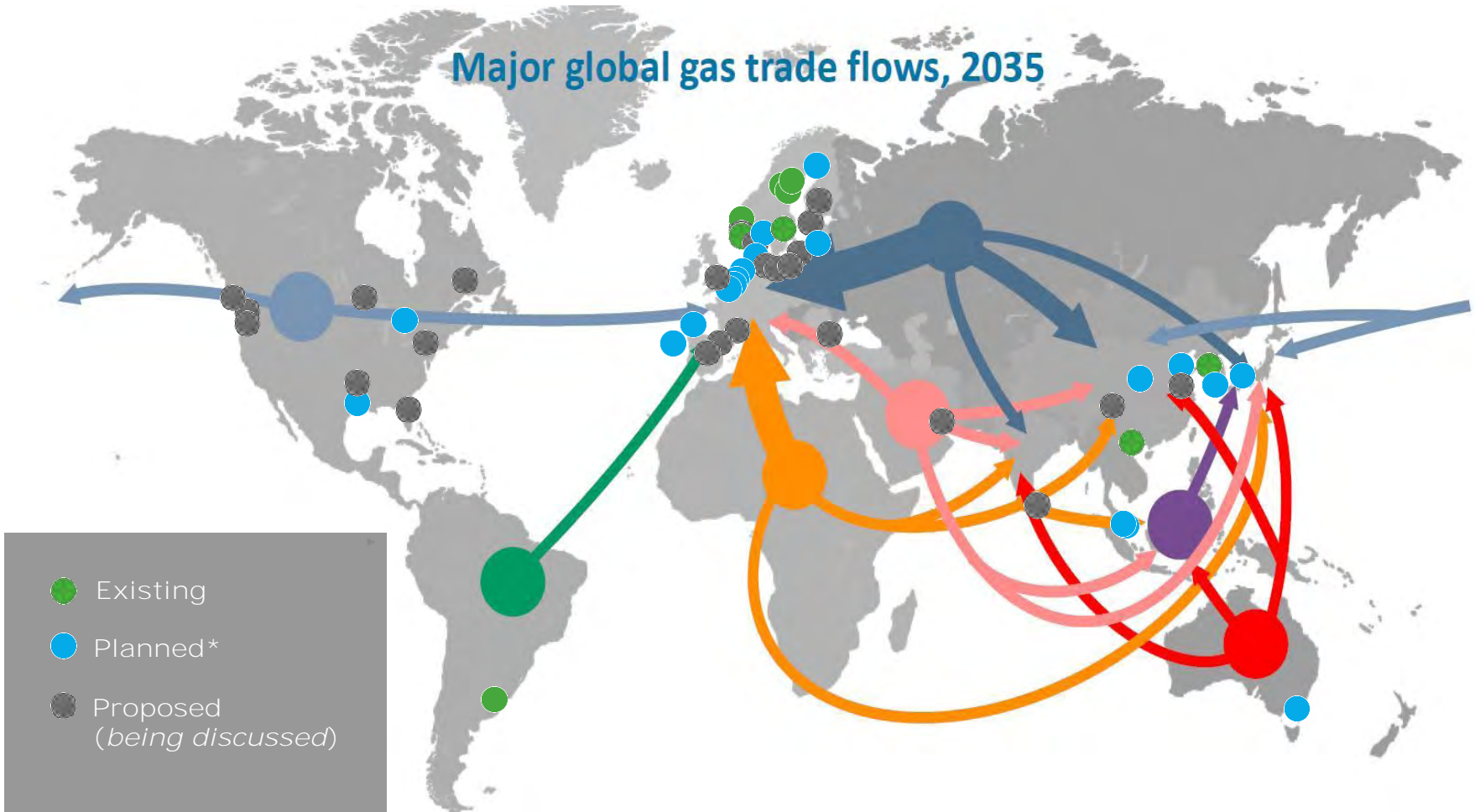


Large LNG volumes globally traded & distributed



# LNG is linking global gas markets

## Major global gas trade flows, 2035



<http://www.gastechnews.com/lng/lng-is-the-glue-linking-global-gas-markets/>

# Environmental regulation is key driver for LNG as transportation fuel

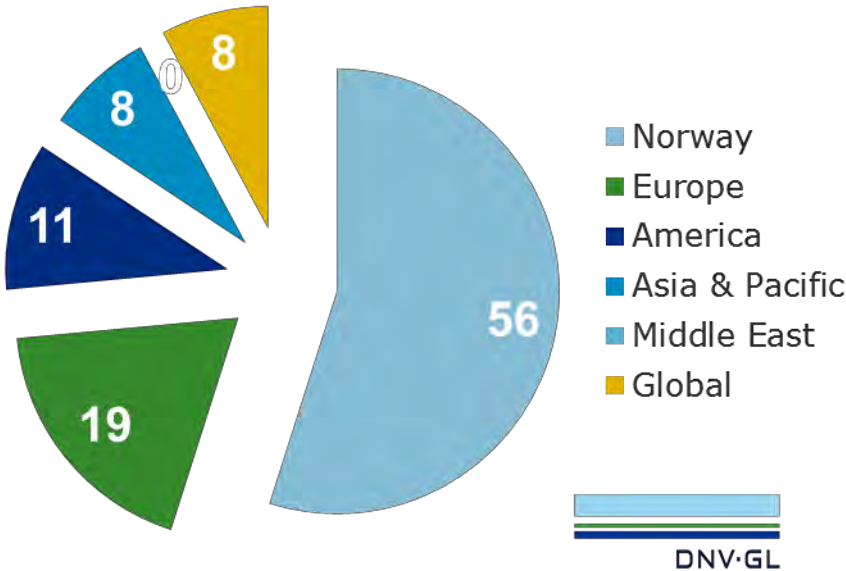
## Existing and Future ECA zones



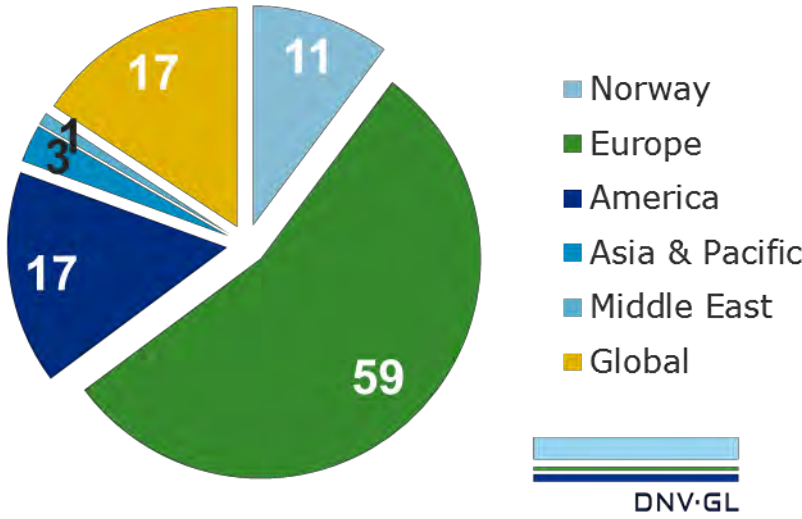
ECA = Emission Control Areas

# Area of operation of LNG fuelled vessels

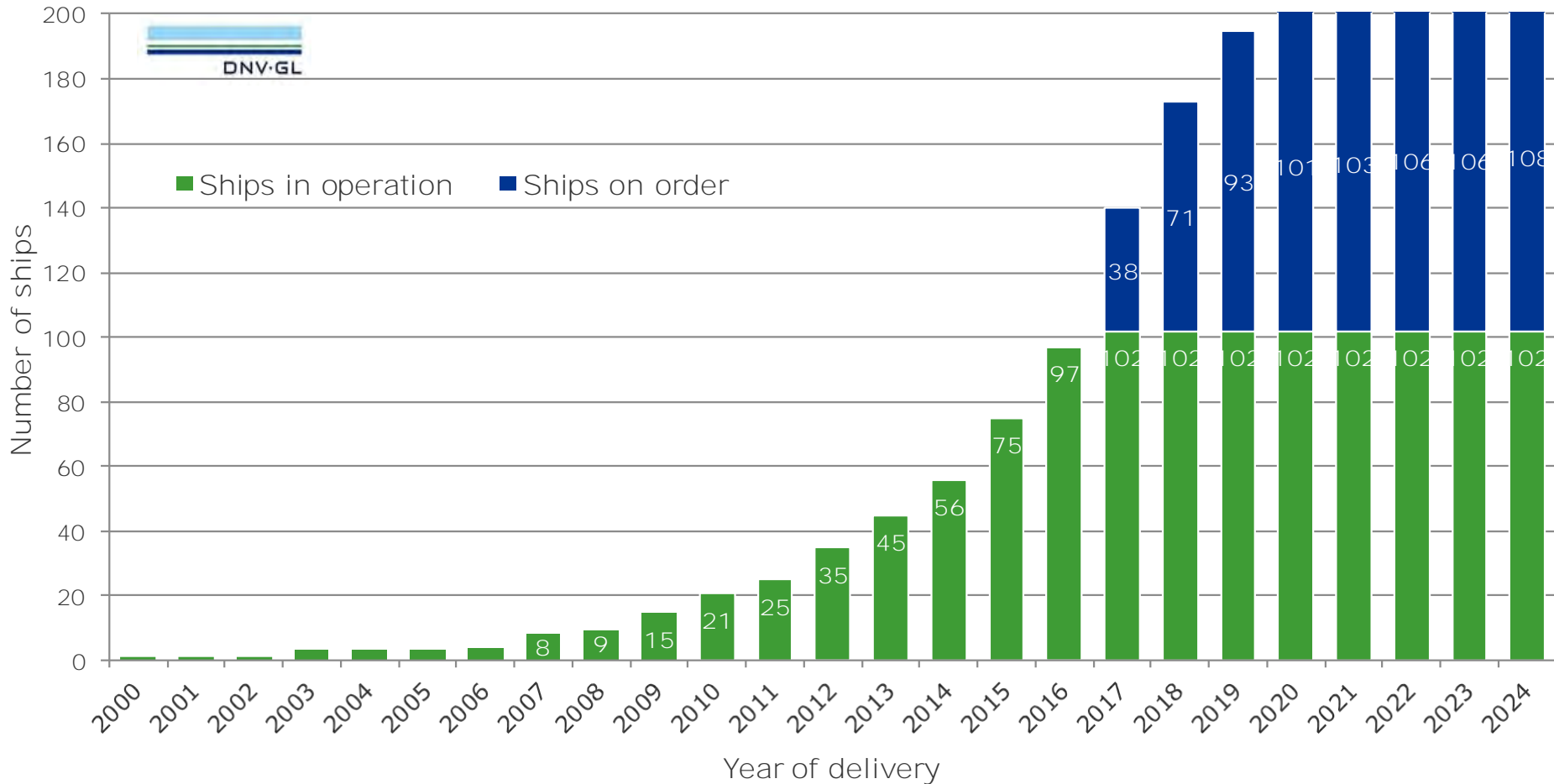
Operating area of the 102 ships in operation



Operating area of the 108 ships in the confirmed orderbook



# There are currently 201 confirmed LNG ship fuel projects



Additional orders beyond 2018 are confirmed

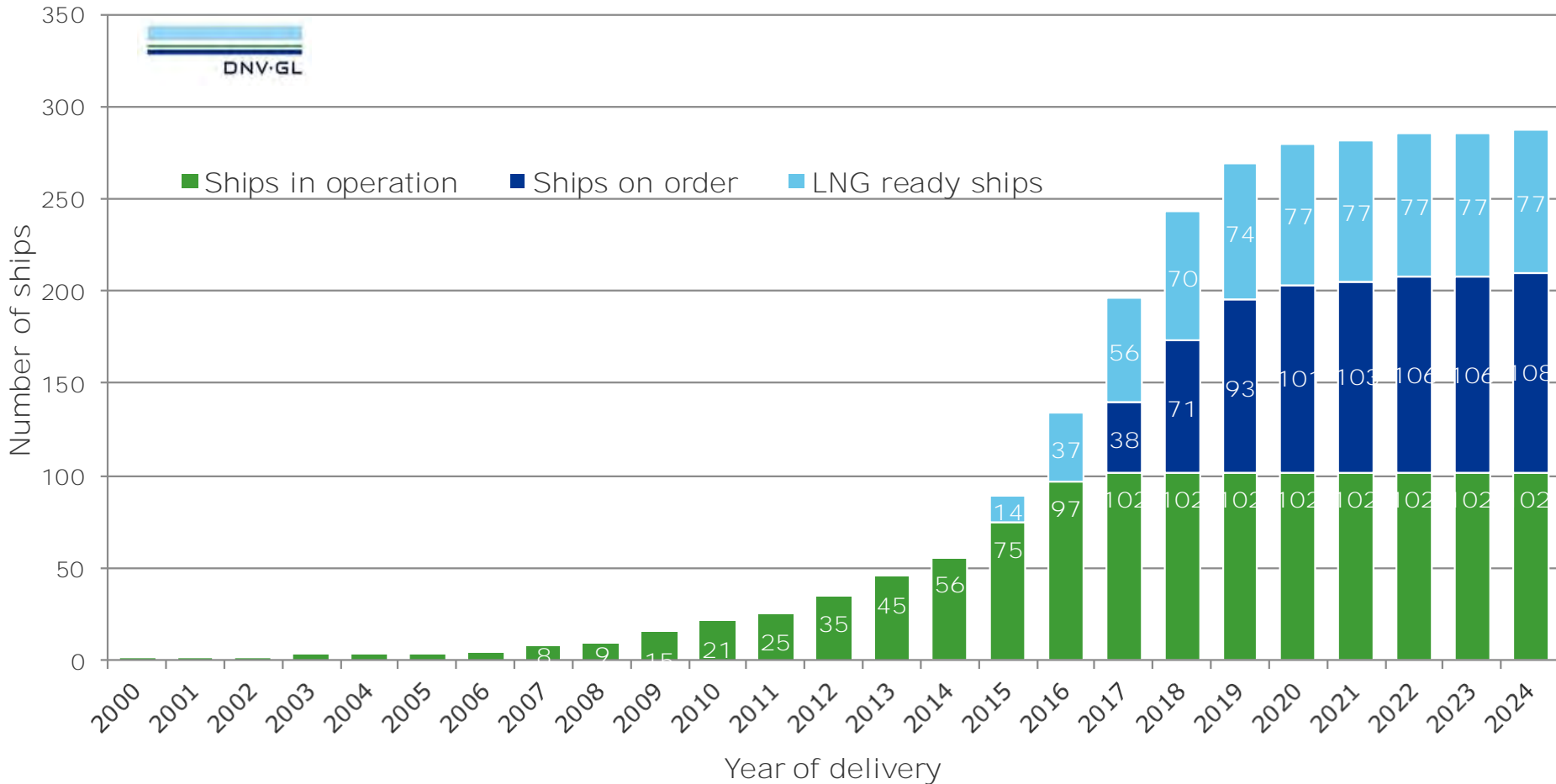
Ungraded

Updated 20 March 2017

Excluding LNG carriers and inland waterway vessels



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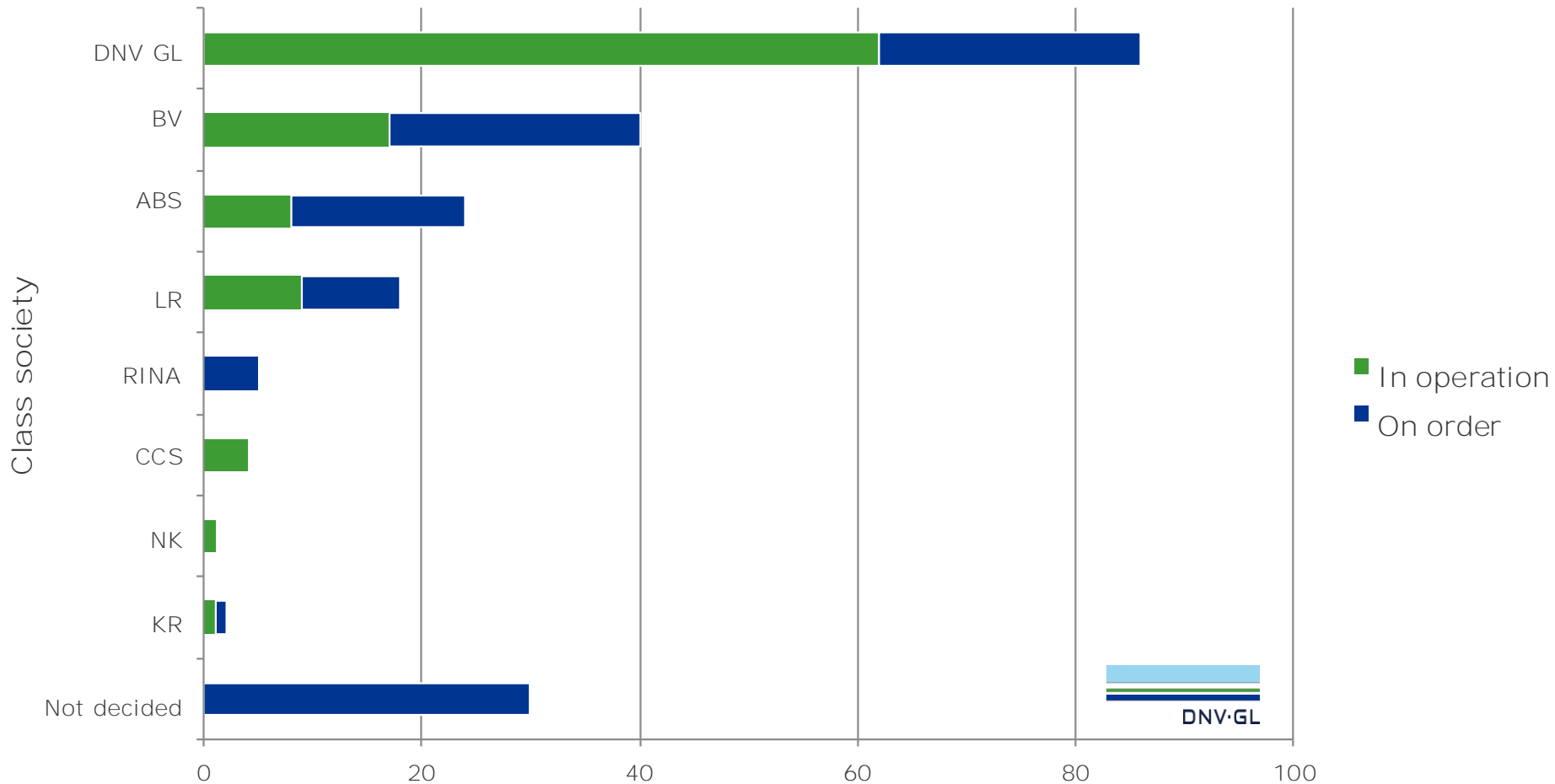
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Updated 20 March 2017

Excluding LNG carriers and inland waterway vessels

# DNV GL – trusted partner for LNG fuel projects

## LNG fuelled fleet by class society

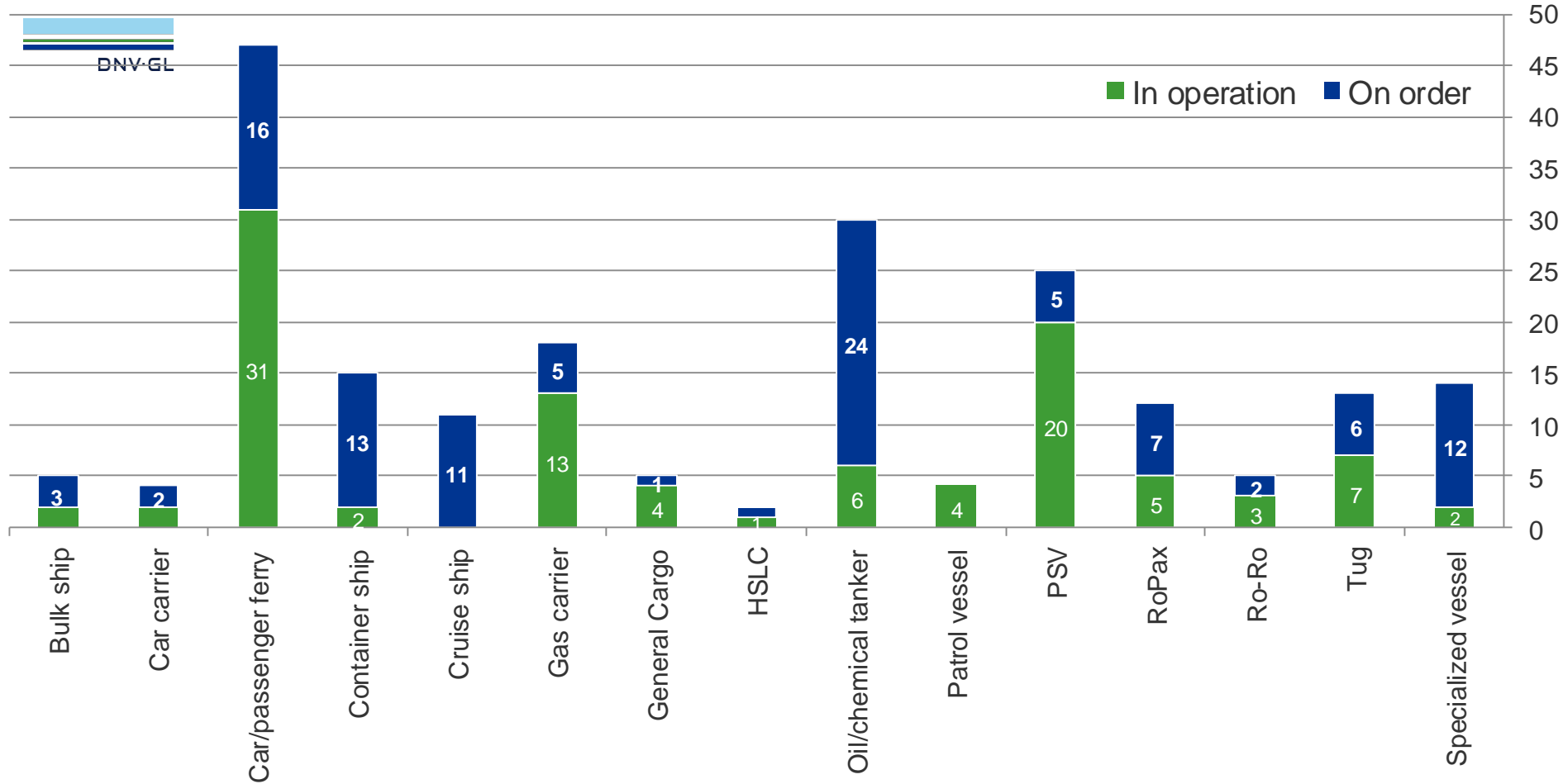


Updated 20 March 2017

Excluding LNG carriers and inland waterway vessels

Ungraded

# LNG uptake by vessel segment



Ungraded

Updated 20 March 2017  
Excluding LNG carriers and inland waterway vessels

# GLOBAL IMPACT FOR A SAFE AND SUSTAINABLE FUTURE

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