



# Gas 2017 and Global Gas Security Review 2017

---

Rodrigo Pinto Scholtbach

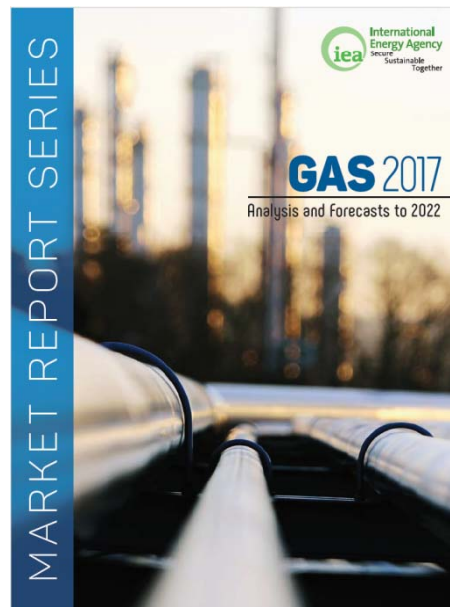
22 November 2017



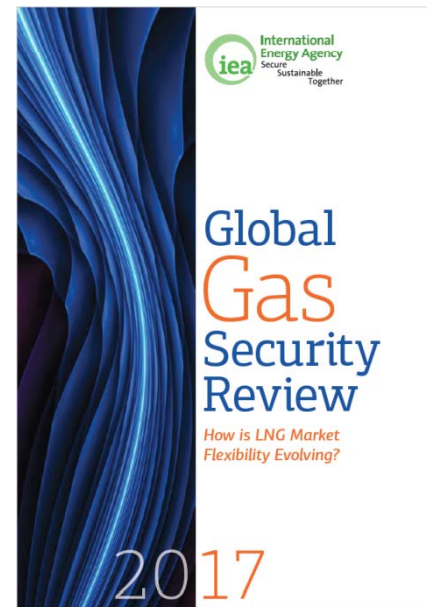
# Two sides of the same market...



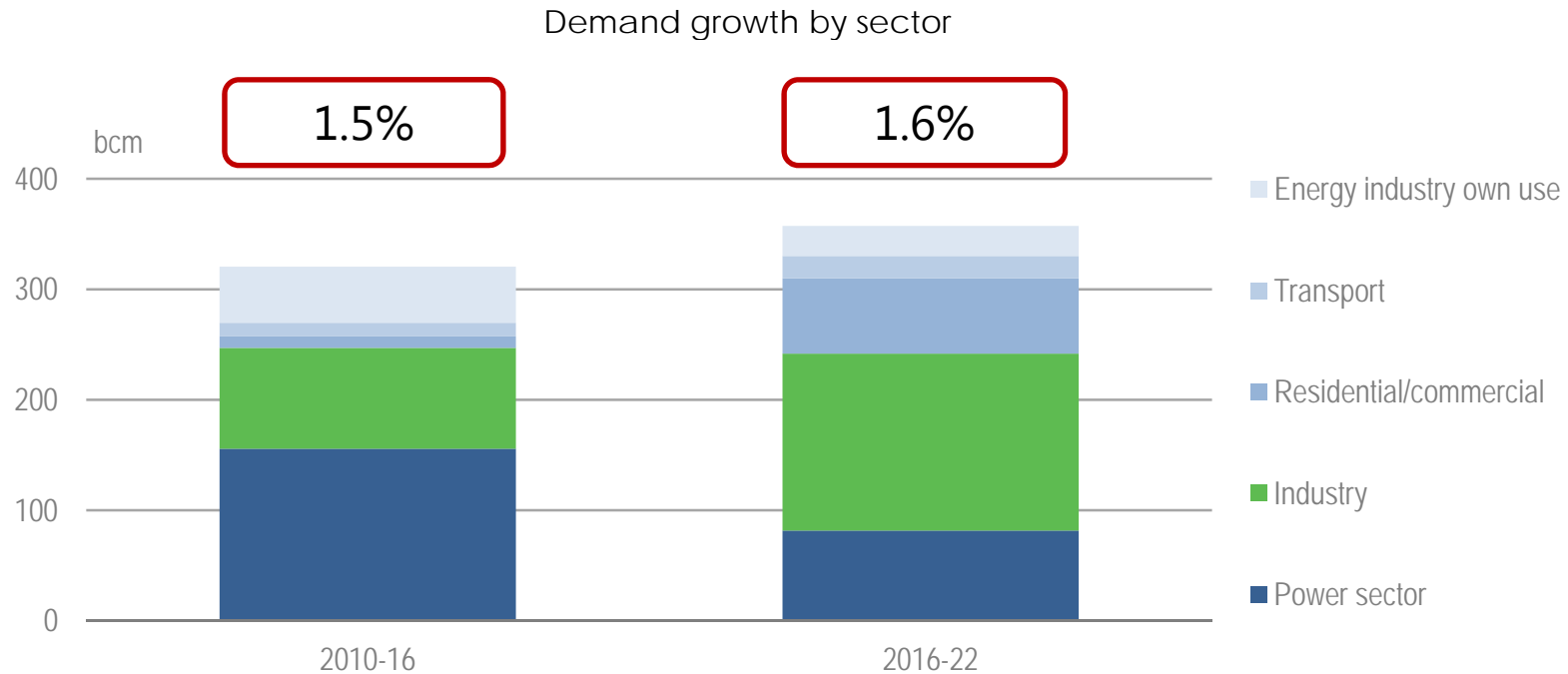
## Gas market analysis & forecast



## Security of supply developments & policies

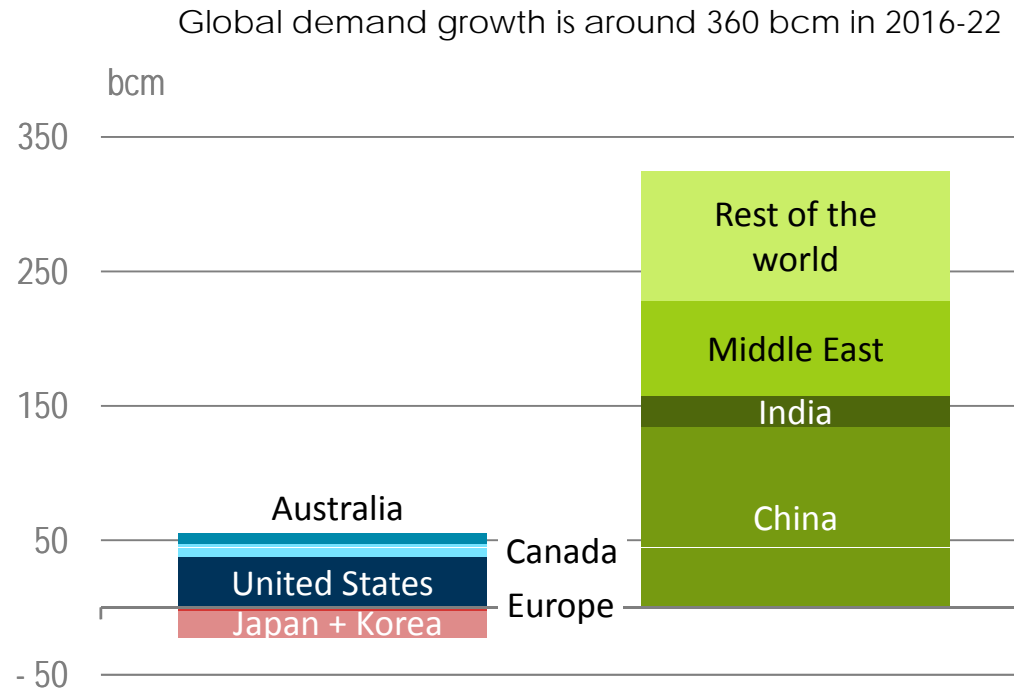


# Demand growth moves from power generation to industrial sector



**China, US and India account for half of the growth in industry sector, driven by chemicals and fertilisers**

# Demand growth focuses in developing countries

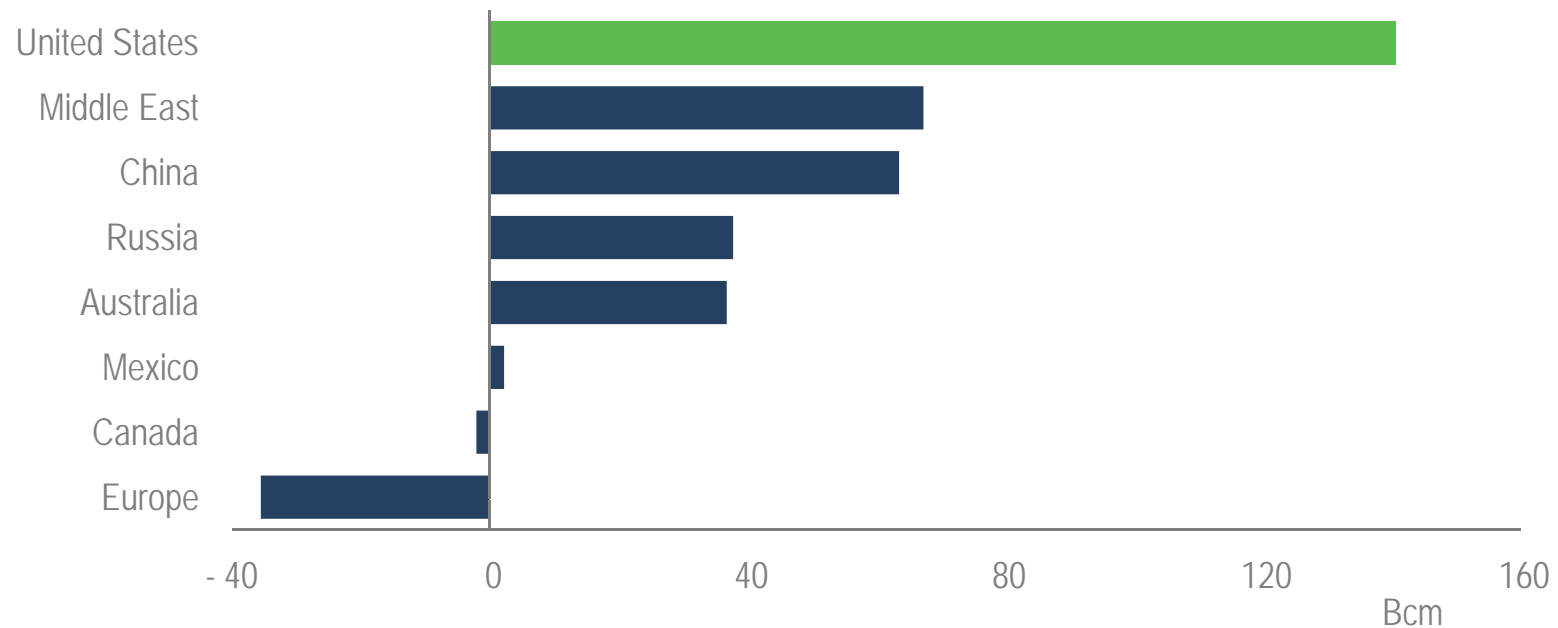


**Developing countries account for around 90% of the incremental demand**  
**The United States accounts for most of the growth in the developed economies**

# US unconventional gas revolution has far-reaching consequences

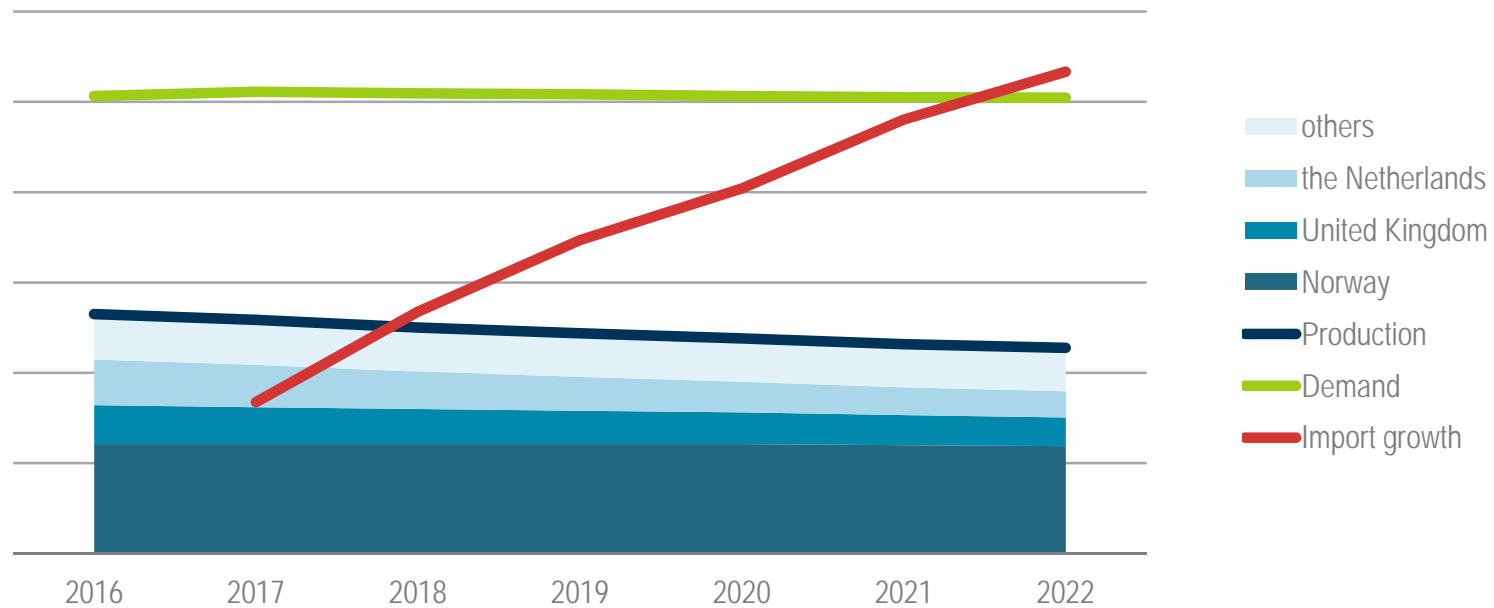


## Changes in gas production, 2016-2022



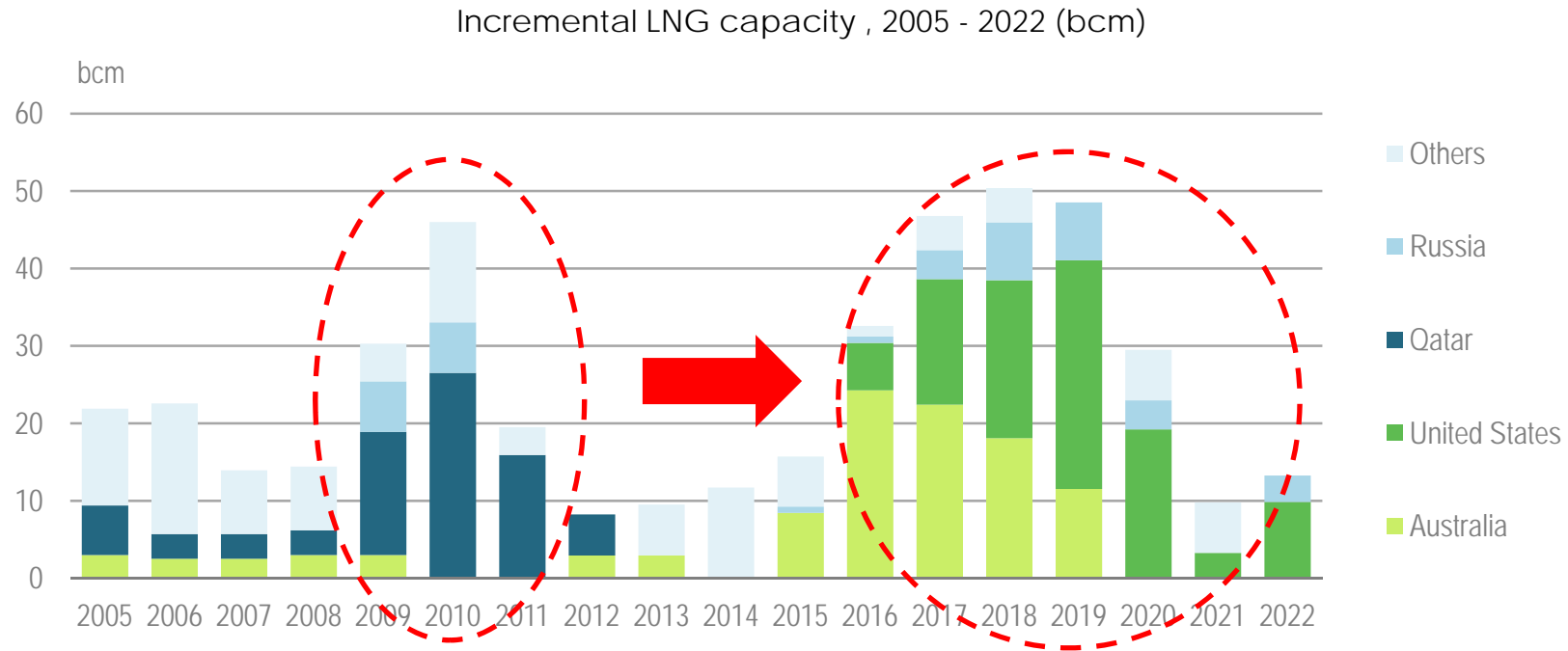
**Since 2009, US shale has added some 180 Bcm – above Russia's 2016 exports to Europe  
The US is forecast to account for 40% of the increase in global production to 2022**

# Decreasing European production, increasing import needs



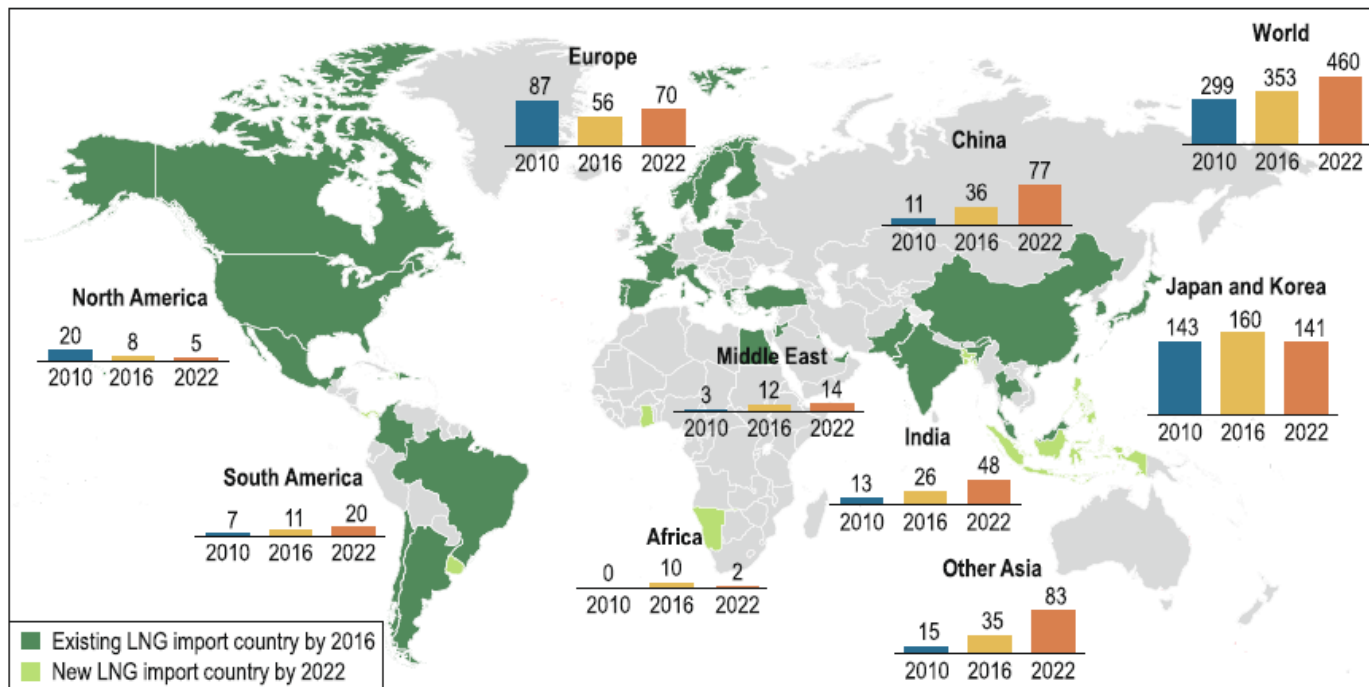
**European import requirement grows steadily with flat demand and declining production  
It is up to competition between pipeline and LNG to fill this gap**

# Second wave of additional LNG supply is already coming online



**15 new projects with total export capacity of around 140 bcm are now under construction  
Australia and the United States account for 75% of them**

# Asia, Europe and South America will drive LNG import growth



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.

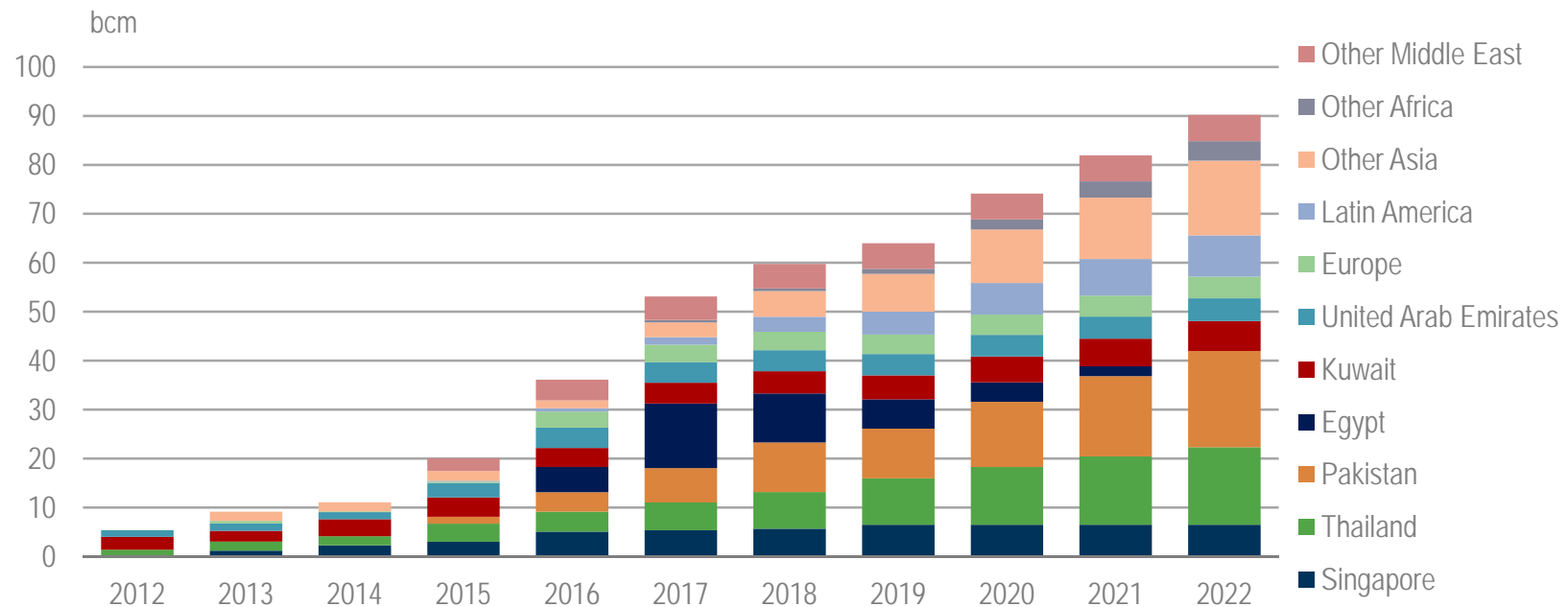
**China and India together will double their LNG imports**  
**Smaller and new LNG import markets will add more than 40 bcm to global LNG imports**



# New importers increase LNG market diversification



## Growth from small and new LNG importers

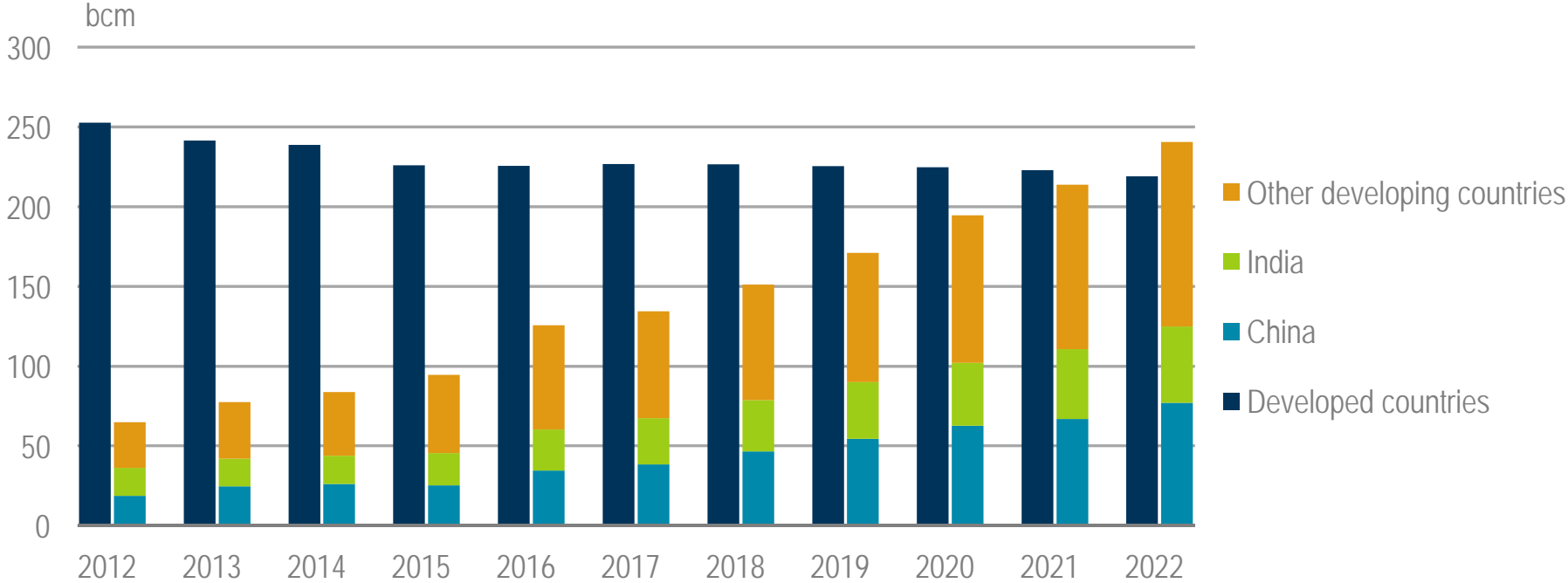


**New importers emerge and would account for almost 20% of LNG volumes in 2022. The number of LNG importing countries went from 15 in 2005 to 39 in 2016, and 48 by 2022.**

# Demand in developing countries reshaping the LNG market



LNG import volumes , 2012 - 2022 (bcm)



**China, India and other developing countries will import more than 50% of all LNG by 2022**

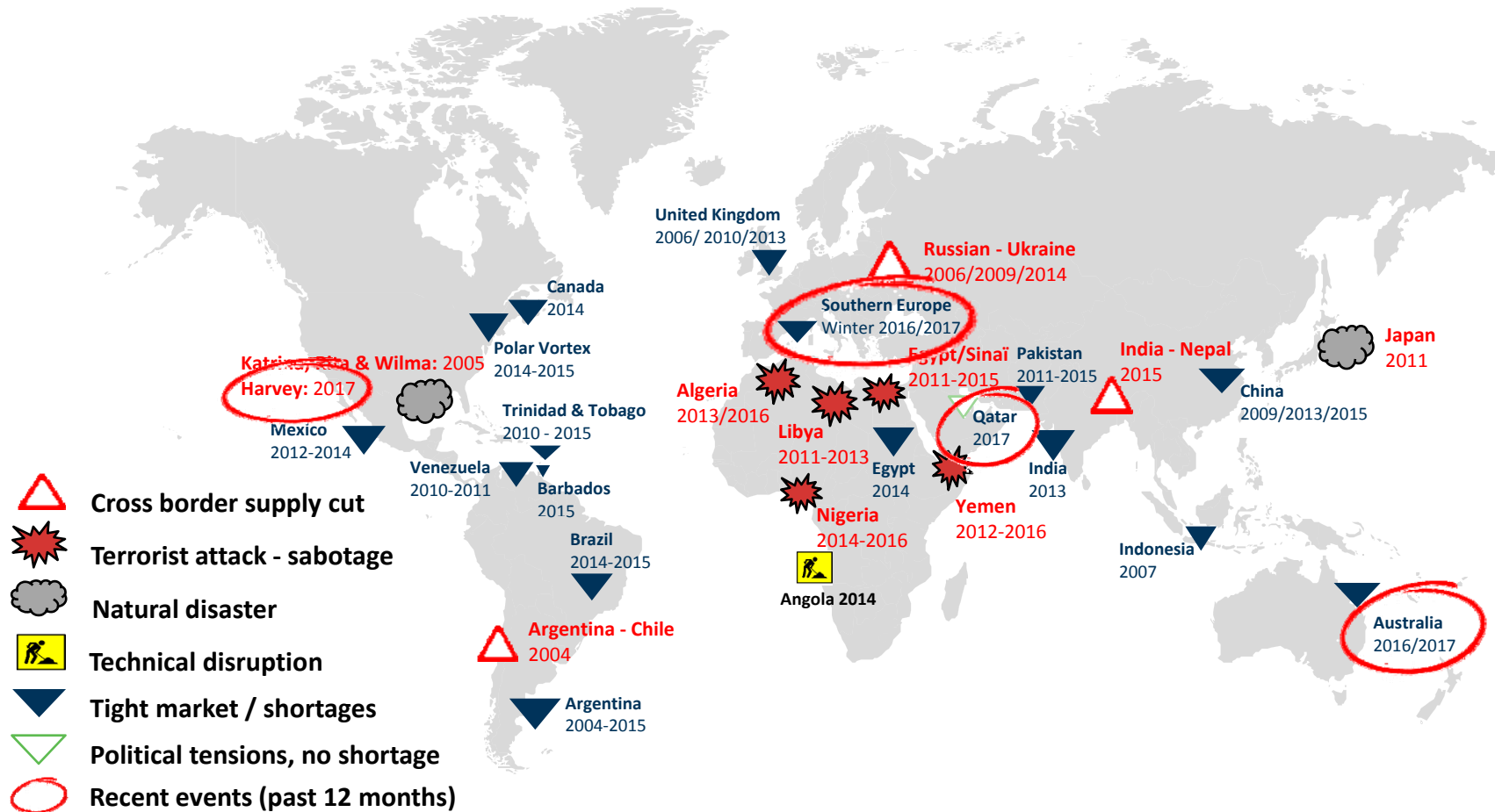
## Key findings from Gas 2017

---



- **Lower prices help gas to strengthen its foothold in Asia**
  - Developing countries account for 90% of demand growth, China alone for 40%
  - Industrial consumers take over from power generation as the main source of growth
  
- **The US takes the lead on global supply as the shale revolution gets a second wind**
  - The US generates almost 40% of the rise in global output & the largest increase in exports
  
- **New diversity to global supply & trade, with new entrants on demand & supply side**
  
- **A glut of LNG continues to put pressure on markets**
  - Challenges to existing suppliers, business models and pricing mechanisms
  
- **Even though markets remain well supplied, recent events remind us that gas security cannot be taken for granted**

# Gas security of supply remains a live issue



# LNG trade flexibility keeps on improving



## Recent evolution in LNG contracts

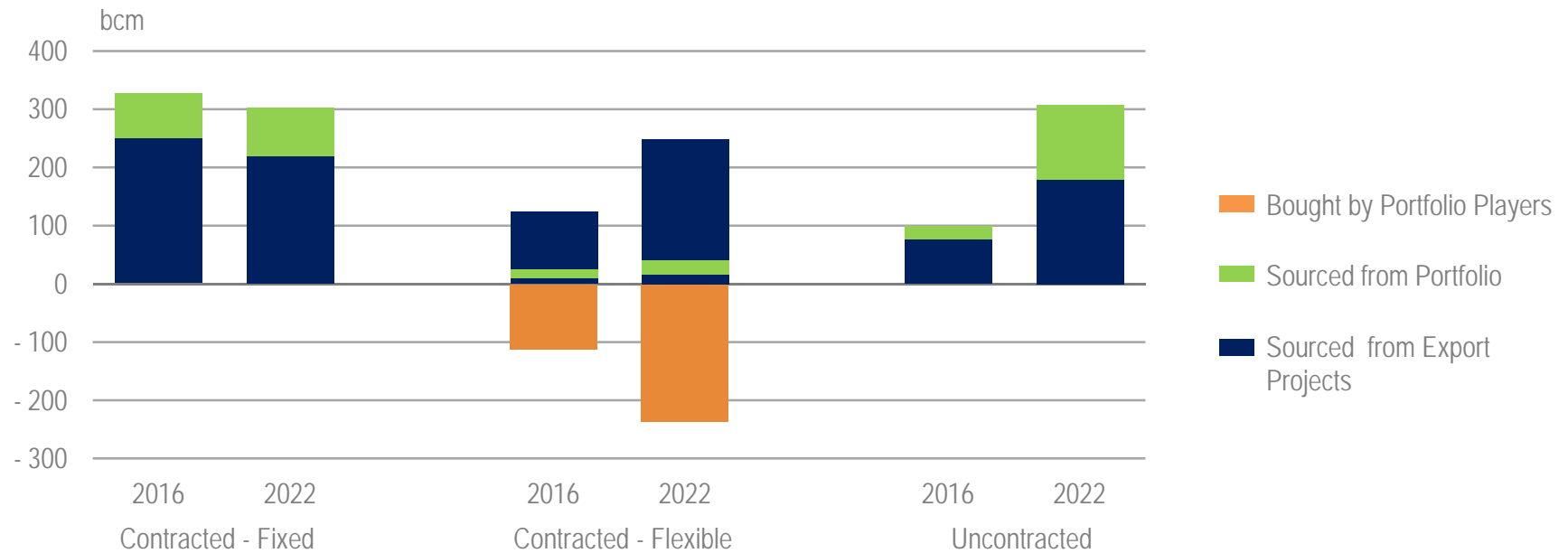


**Trends from new signed contracts – more destination flexible and shorter – show proof of increasing LNG trade flexibility**

# LNG flexibility expected to grow

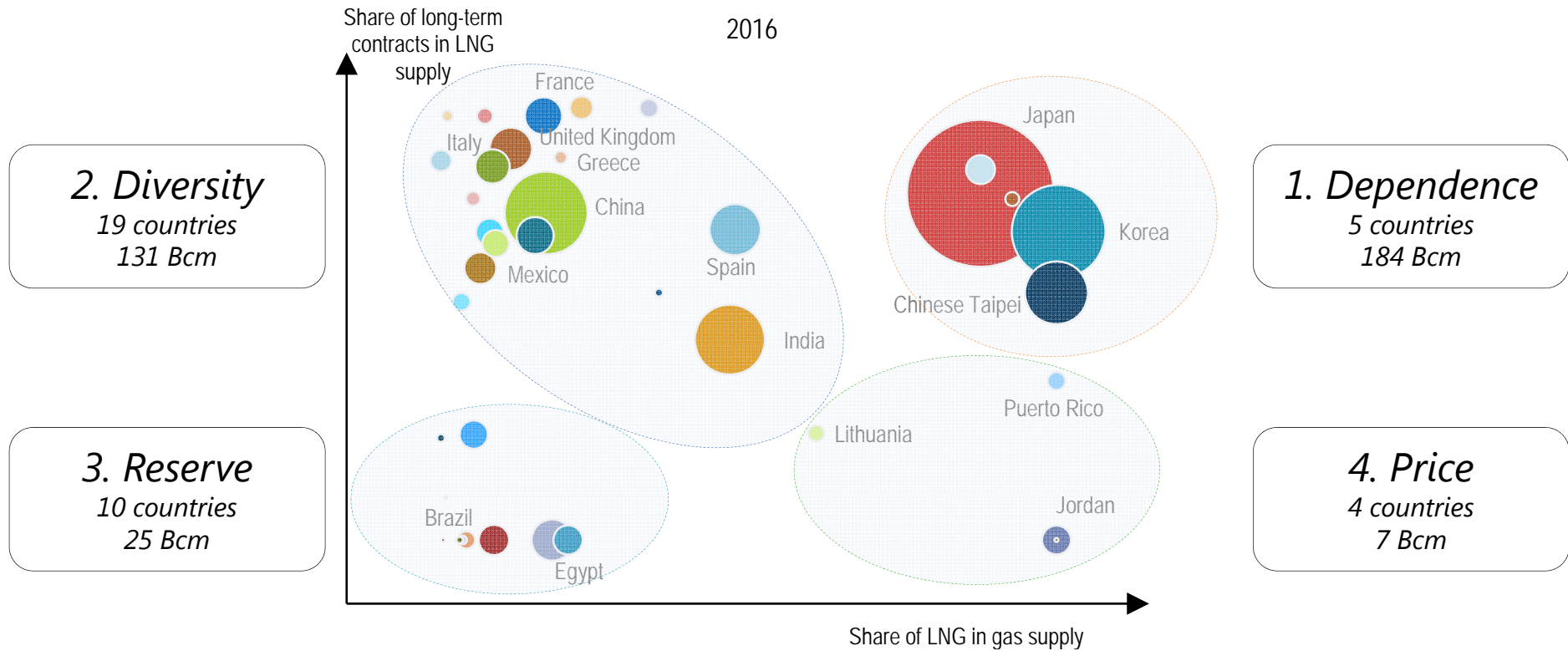


## LNG supply evolution per type of contract



**Flexibility will increase with growing (mainly US) contracted volumes without destination clauses and (temporarily) uncontracted volumes from both projects and portfolios**

# LNG buyer typology and characteristics

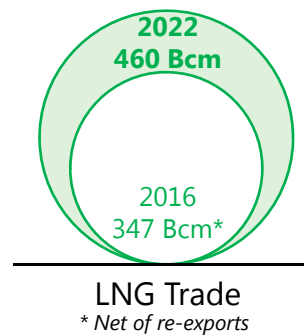
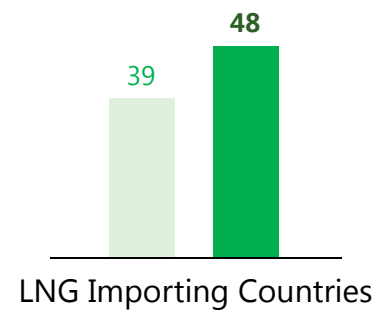
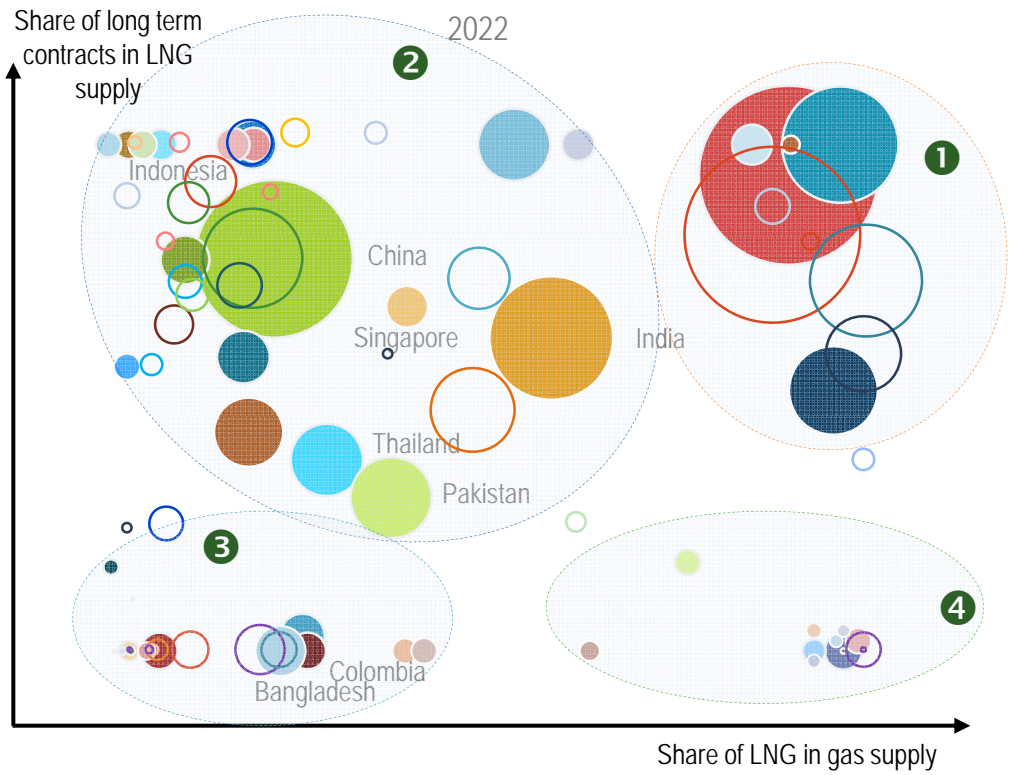


**LNG buyers segment into four different types according to security of supply needs**

# Increasing LNG buyer diversification and LNG dependency by 2022



- 1. Dependence**  
 5 countries  
 172 Bcm (-12 Bcm)
- 2. Diversity**  
 19 countries  
 243 Bcm (+114 Bcm)
- 3. Reserve**  
 14 countries  
 30 Bcm (+5 Bcm)
- 4. Price**  
 10 countries  
 13 Bcm (+6 Bcm)



**LNG trade grows from additional importing and exporting countries  
Share of LNG dependency increases in countries' supply mix**



## Key findings from Global Gas Security Review 2017

---



- Events show that global natural gas security remains a live issue and cannot be taken for granted.
- Policies are being enacted to improve the security of natural gas supply.
- LNG contract flexibility keeps improving towards more liquid markets.
- LNG demand is becoming more flexible, enhancing security of supply – a new LNG buyer typology allows to measure how LNG market is evolving.
- Yet growing dependence on LNG imports from a growing number of importing countries implies an evolving landscape for security of supply.



[www.iea.org](http://www.iea.org)

