



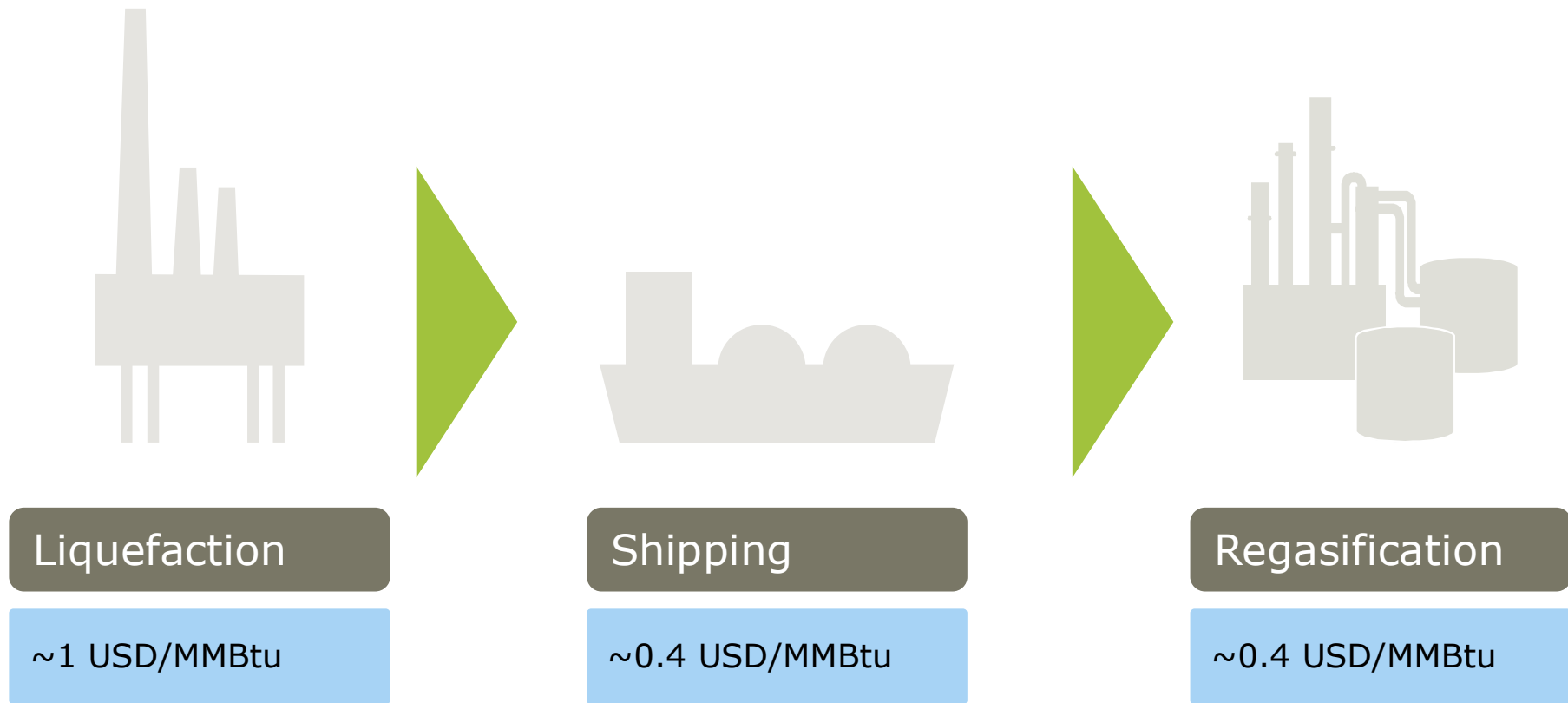
LIQUEFIED NATURAL GAS: GLOBAL EXPERIENCE AND ECONOMIC BENEFITS



WHAT IS LNG

- Natural Gas cooled down to approximately 161°C
- The natural gas is condensed into a liquid
- Mass is then reduced 600 times

THE LNG VALUE CHAIN



1 ton LNG = 52 MMBtu = 15.3 MWh \approx 1.300 m³ of natural gas ^{*)}

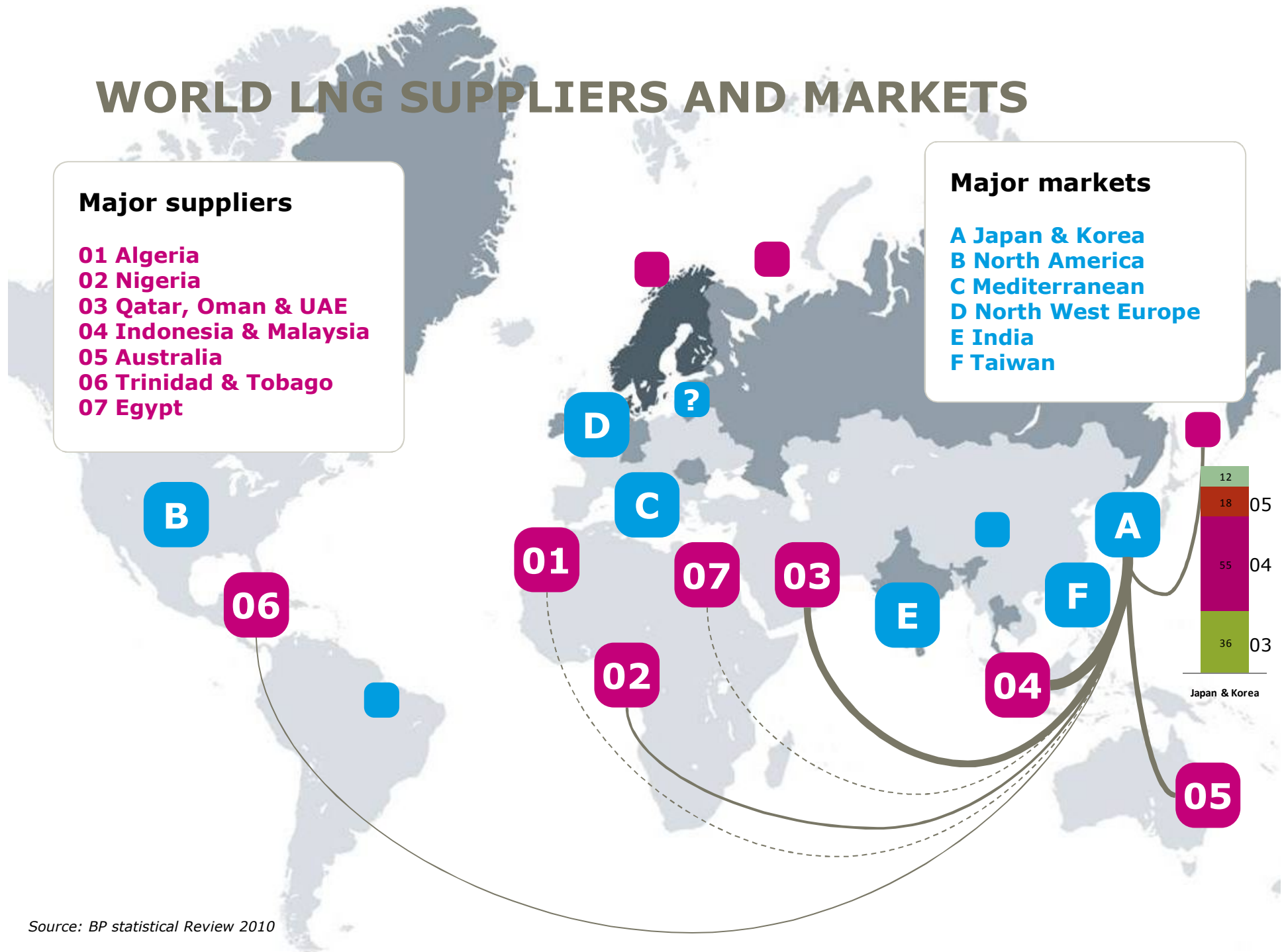
WORLD LNG SUPPLIERS AND MARKETS

Major suppliers

- 01 Algeria
- 02 Nigeria
- 03 Qatar, Oman & UAE
- 04 Indonesia & Malaysia
- 05 Australia
- 06 Trinidad & Tobago
- 07 Egypt

Major markets

- A Japan & Korea
- B North America
- C Mediterranean
- D North West Europe
- E India
- F Taiwan



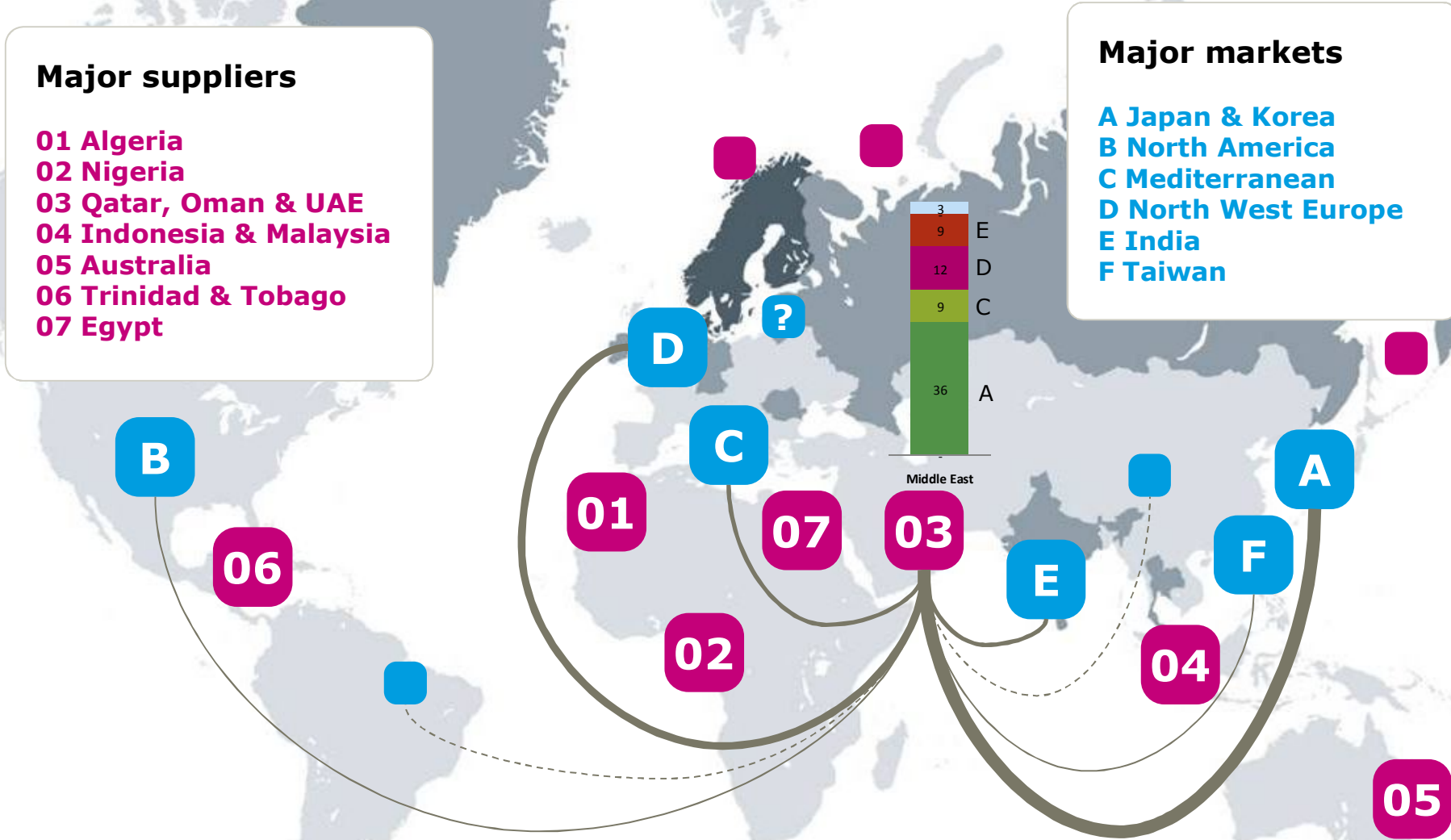
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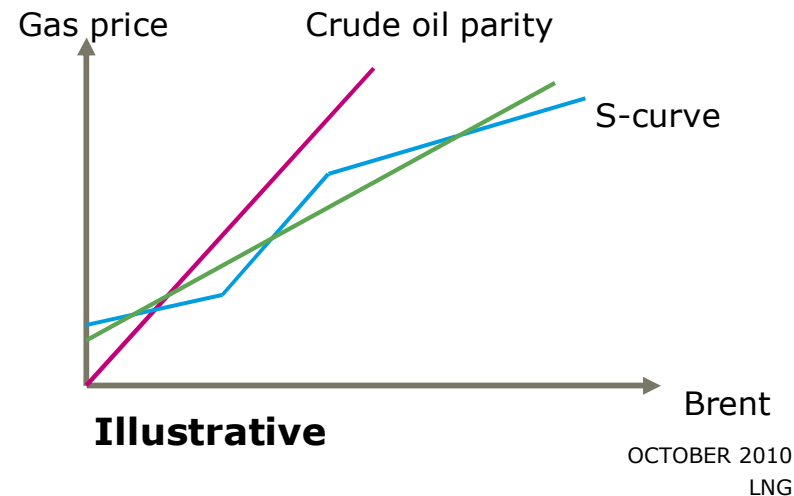
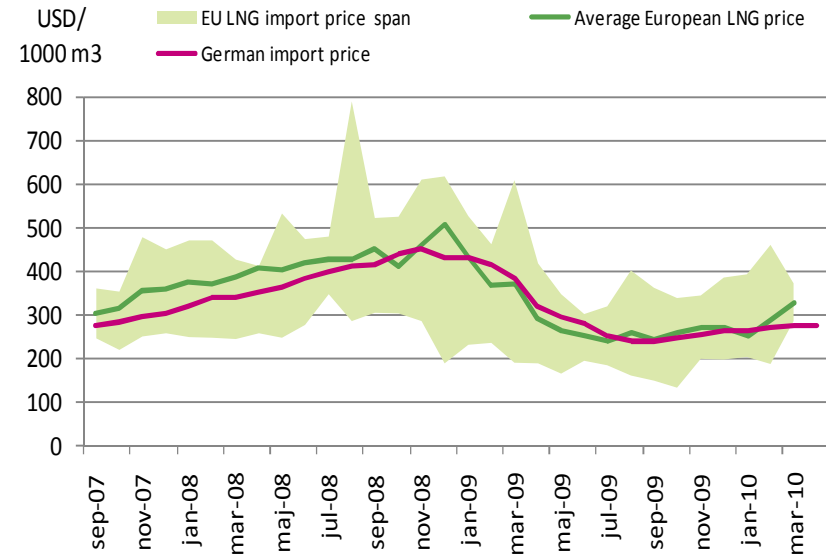
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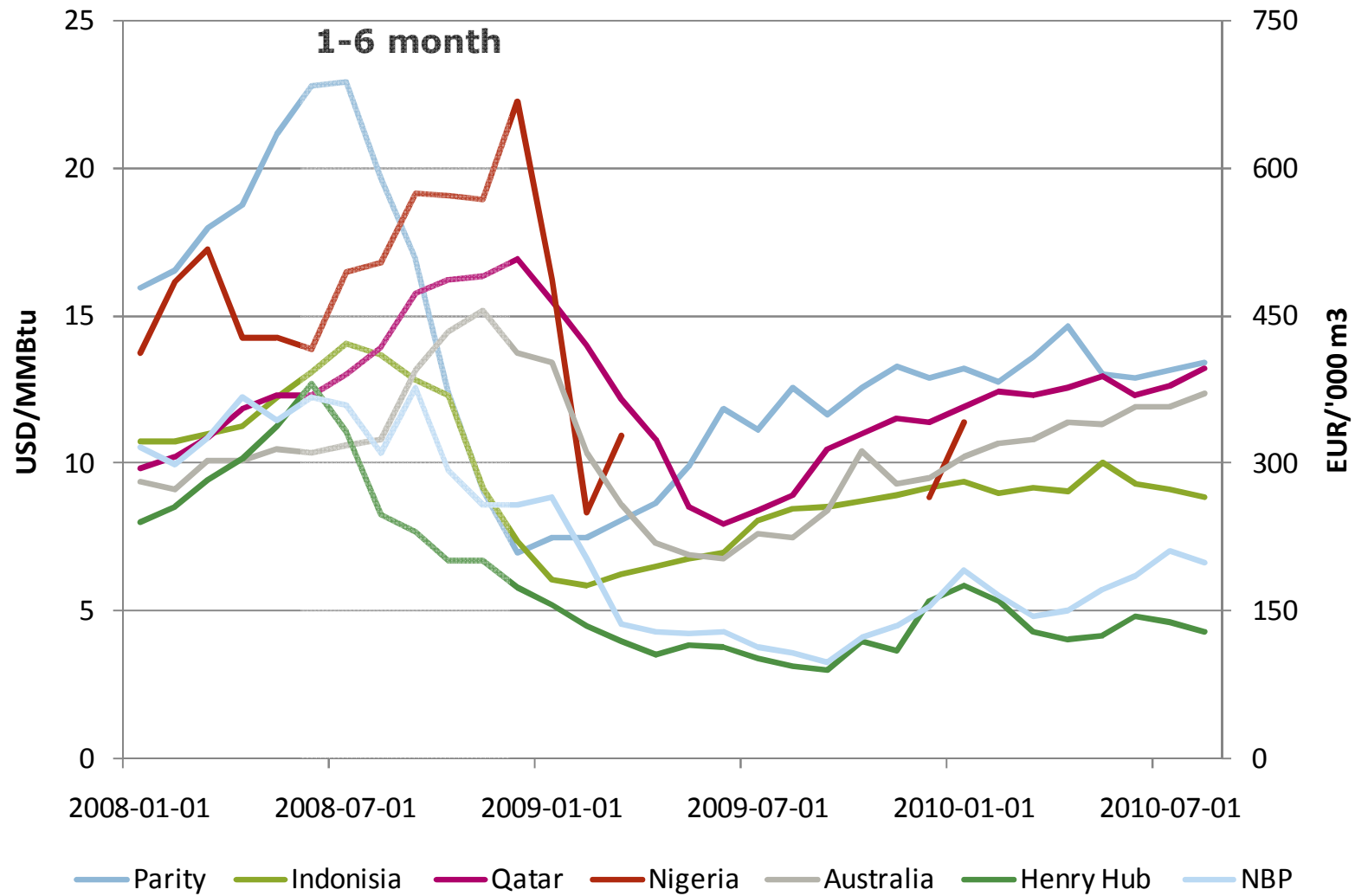


LNG PRICES IS USUALLY LINKED TO OIL

- LNG doesn't have a common price denominator as known from oil (i.e. Brent or WTI)
- Instead LNG is priced against the destined market
 - LNG for Japan usually links to JCC crude notation
 - In European markets it is Brent or NBP
 - Henry Hub is widely used in US market



CASE: JAPANESE LNG PRICES



OCTOBER 2010
LNG

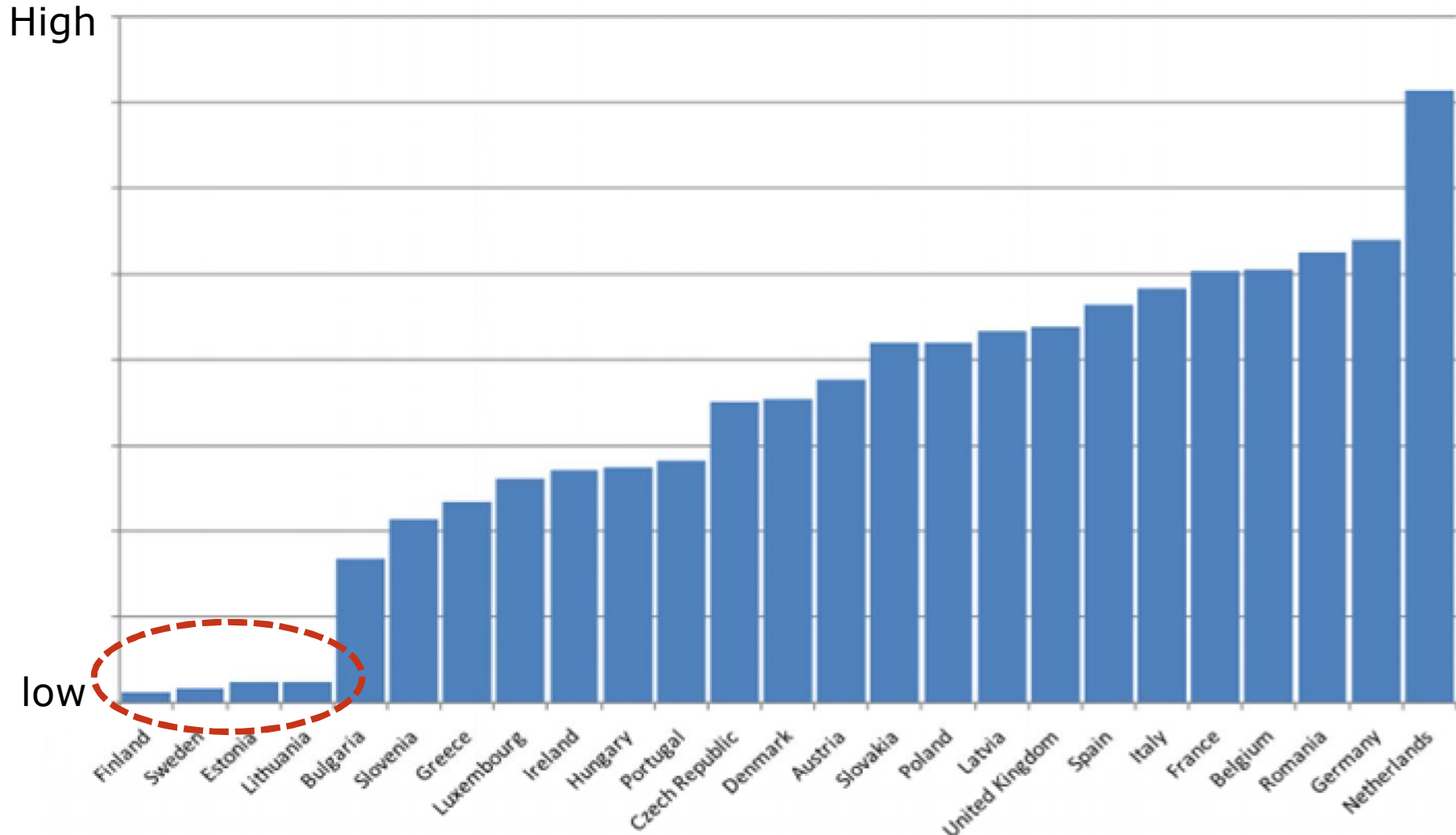
Source: Thompson Reuters, Japanese Ministry of Finance



WHY LNG IN THE BALTIC

- Security of Supply
- Diversity of Supply
- Flexibility

THE PRESENT SITUATION FOR SECURITY OF SUPPLY IN EUROPE



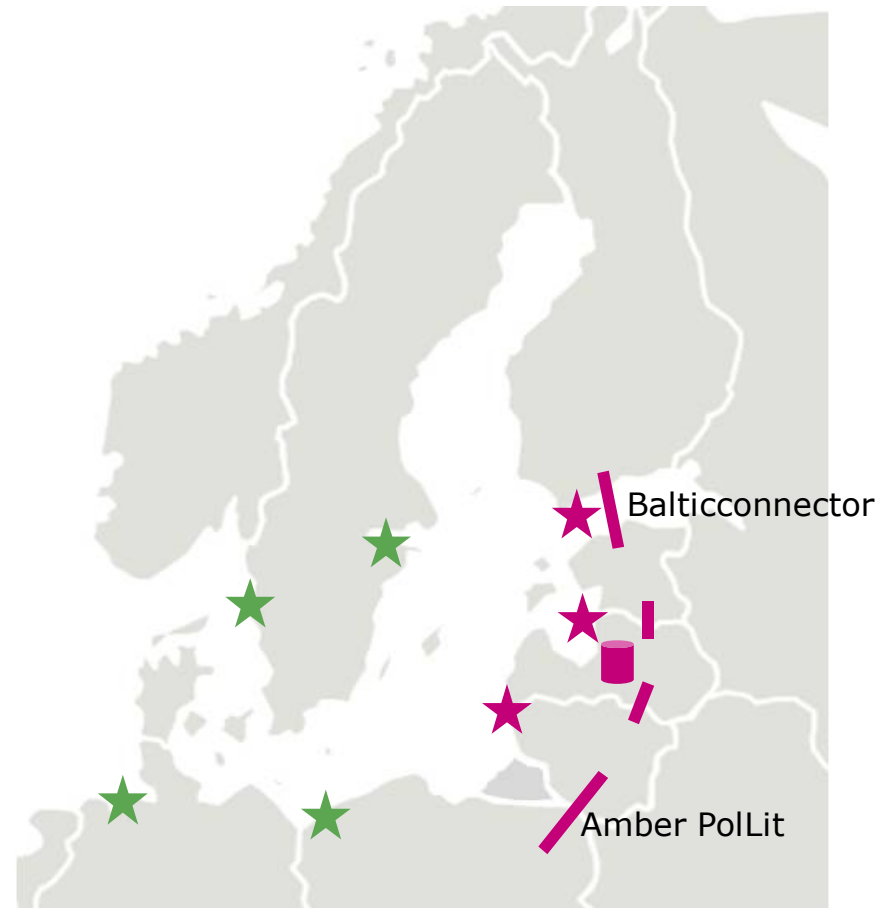
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LNG

Source: Ramboll Security of Supply index (RAMSOS)

RECOMMENDATIONS FROM BEMIP

★/★ LNG terminals planned or under construction

- Substantial investment in infrastructure
 - Amber PolLit
 - Balticconnector
 - At least one LNG terminal
 - Strengthening of existing infrastructure between Baltic states
 - Promote reverse flow in Yamal pipeline

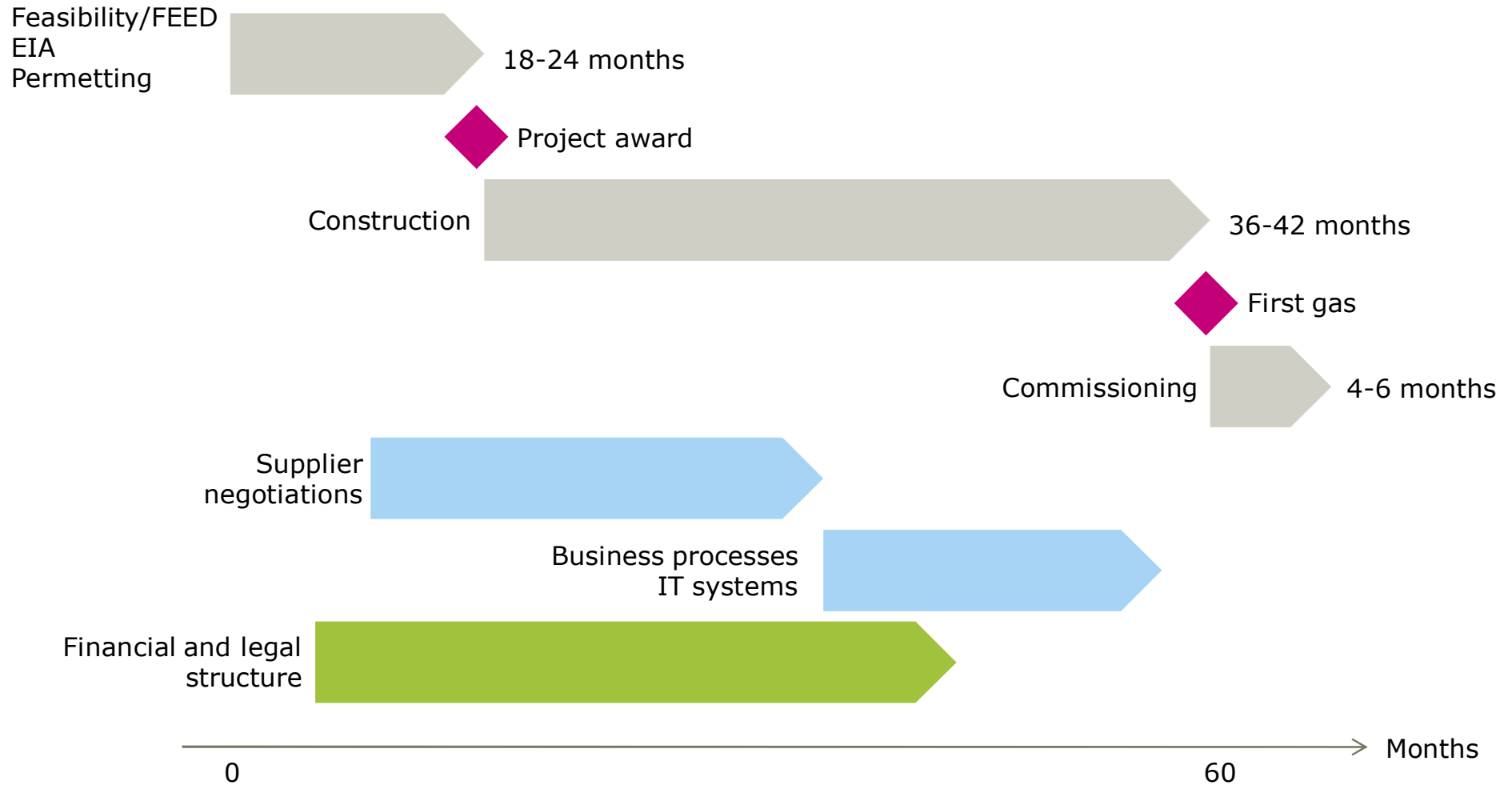




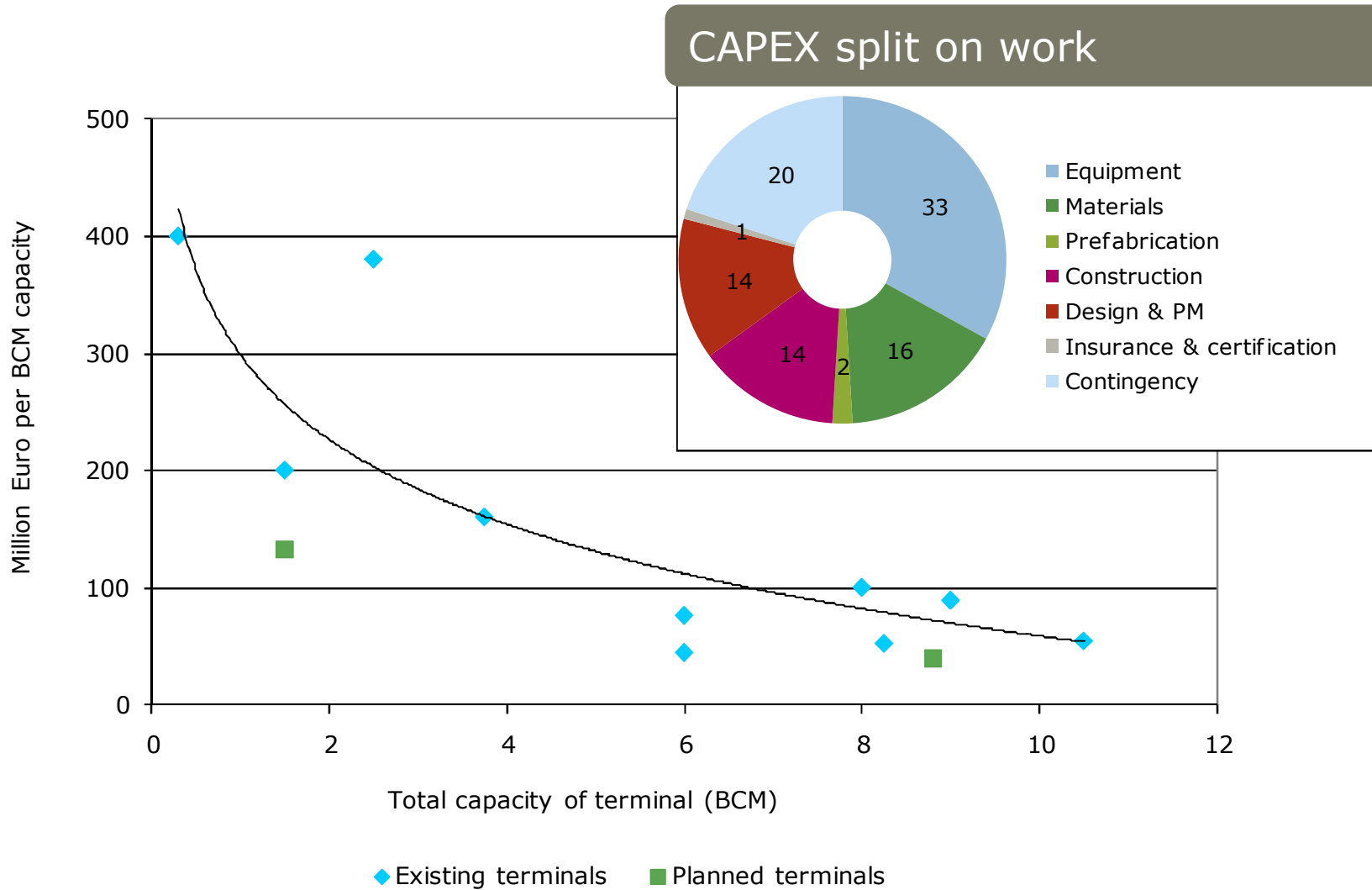
HOW IS IT DONE

- Thorough planning
- Patience
- Brave decisions

BUILDING A LNG TERMINAL TAKES TIME



THERE ARE ECONOMIES OF SCALE



WHAT IS YOUR DESIRED RISK APPETITE

Non-Exhaustive!

Commercial issues

- Number of suppliers
- FOB vs. CIF
- Underlying indexation
- Rely on spot cargoes

Technical/operational issues

- EPC or several tenders
- Operational organisation
- Gas quality

Planning/permitting issues

- Third party access
- Regulatory setup (ie what level of tariffs can you expect)

Financial/structuring issues

- Capital structure
- Project financing
- Strategic partners
- Company structure
- Special purpose financing (EBRD, EIB etc.)

THANK YOU FOR THE ATTENTION

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