



## **LNG - global trends and new right answers**

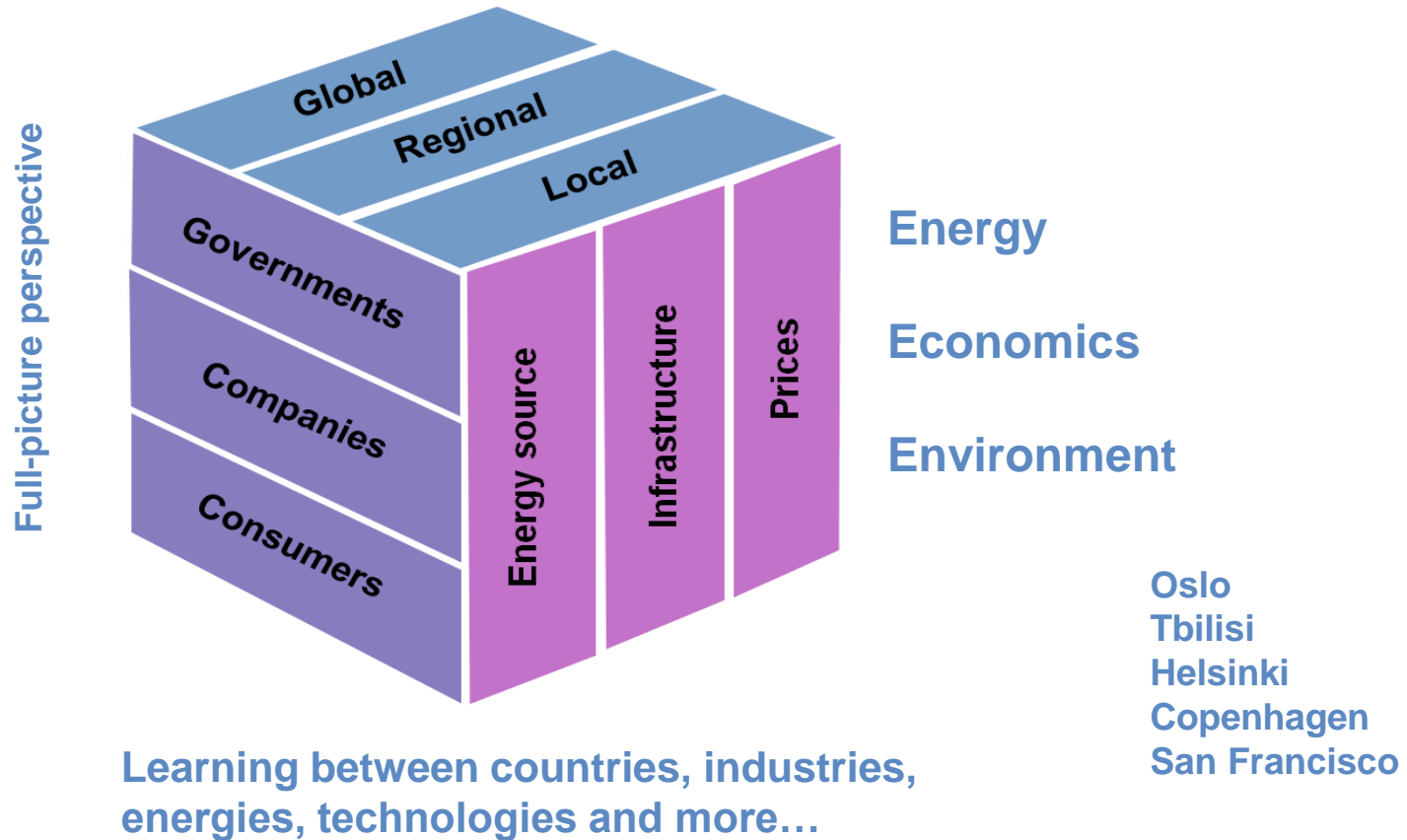
### **What does it mean for Small Scale LNG?**

**Small Scale LNG conference**

**Oslo 29<sup>th</sup> May 2012**

**Karen Sund**

# Sund Energy helps navigate into the energy future...



...by understanding the full picture of stakeholders

# Small scale LNG no longer a special-interest niche

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## Global developments

- Oil, gas, environment, technology, alternatives

## Political targets often in silos

- Economy, energy, environment, transportation, infrastructure...

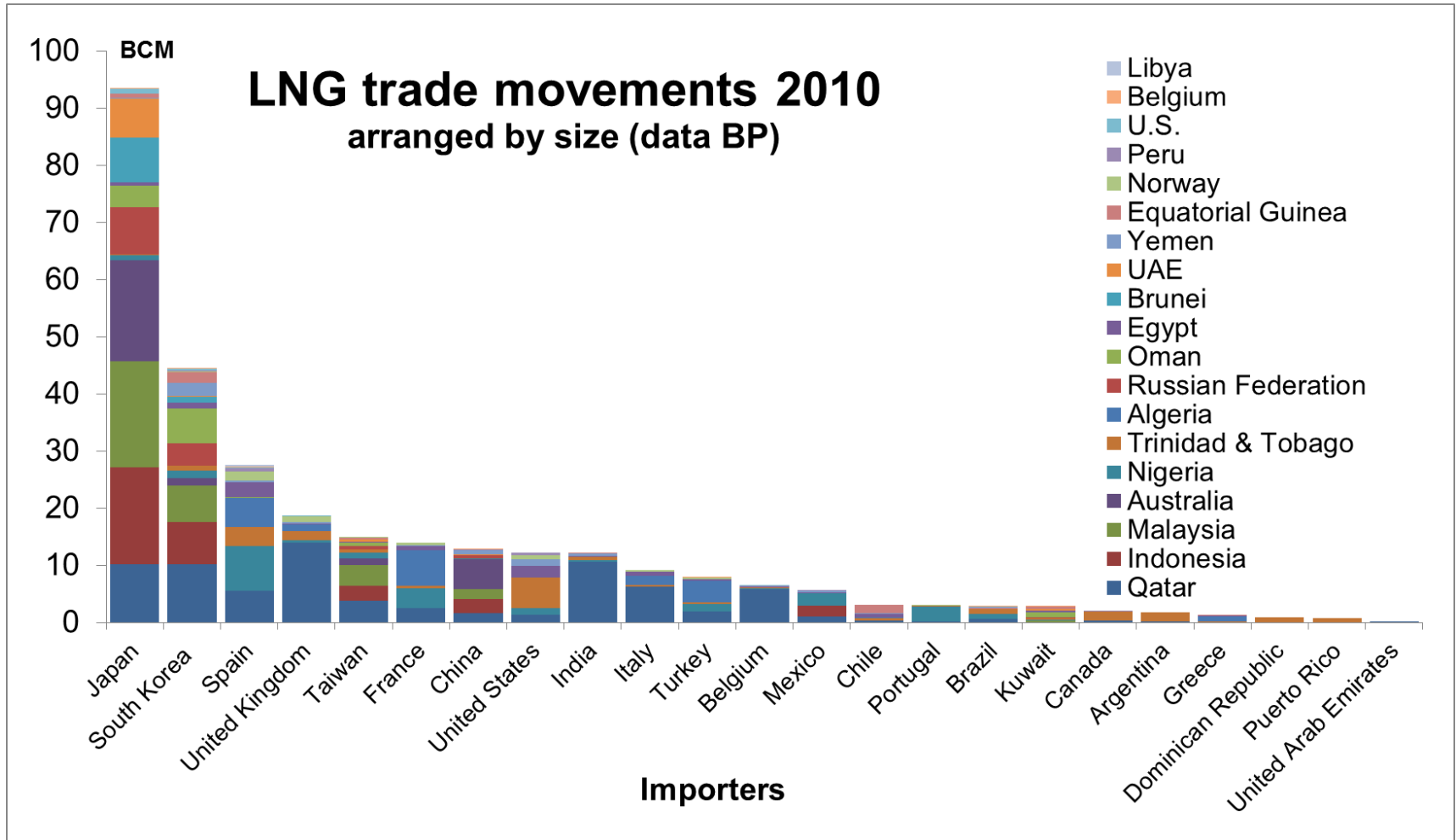
## Governance in bits

- Most regulations on environment and expecting reactive players?
- Less facilitation for pro-active players good for total development?
- Markets and private initiatives fine, but could be slower...
- Learning from other markets could help

## New solutions emerging for small scale LNG

- Who will grasp the opportunities, and should they be encouraged?

# LNG is diverse with many buyers and sellers today



# LNG's changing role is already an advantage for ships

## **Much capacity in liquefaction built up over the years**

- Especially “stranded” gas to “stranded” markets: Australia to Japan
- Later ramp-up to feed the US – not needed after all with shale
- So, over capacity in liquefaction and new players emerging
- East Africa, Eastern Med, Barents Sea, Australian CBM

## **Much capacity in regasification built up, too**

- First to cover physical needs of early trades: UK, France, Belgium
- Later ramp-up to create competition: Netherlands, Lithuania, Poland
- Value of capacity: Bargaining power + upside for cheaper cargoes
- More variable load: Spare capacity available for smaller scale

## **From “left-over” to premium product**

- New players seeing attractive volumes and margins
- Further infrastructure easy and profitable enough

# LNG capacity is growing rapidly in the world

LNG trade grows twice as fast as global gas production...



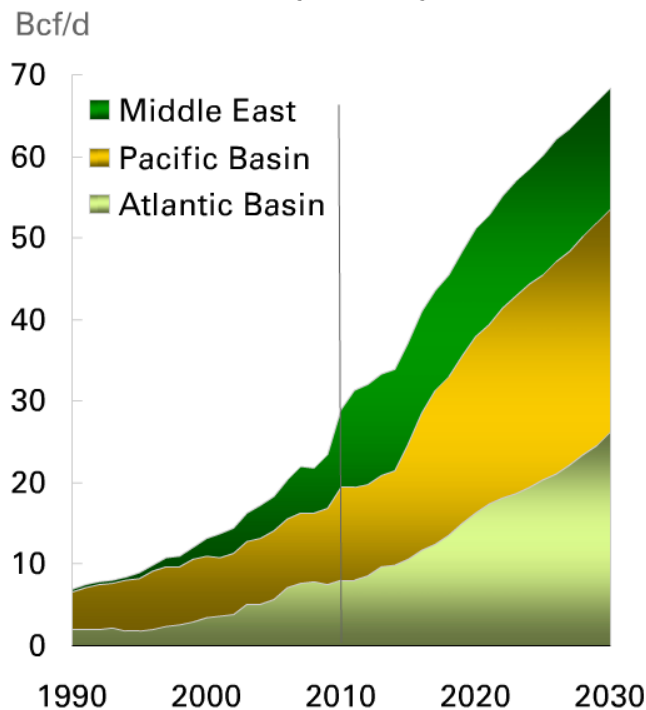
The IEA also expects a doubling of LNG capacity, to about 600 bcm

- Australia almost 100 bcm

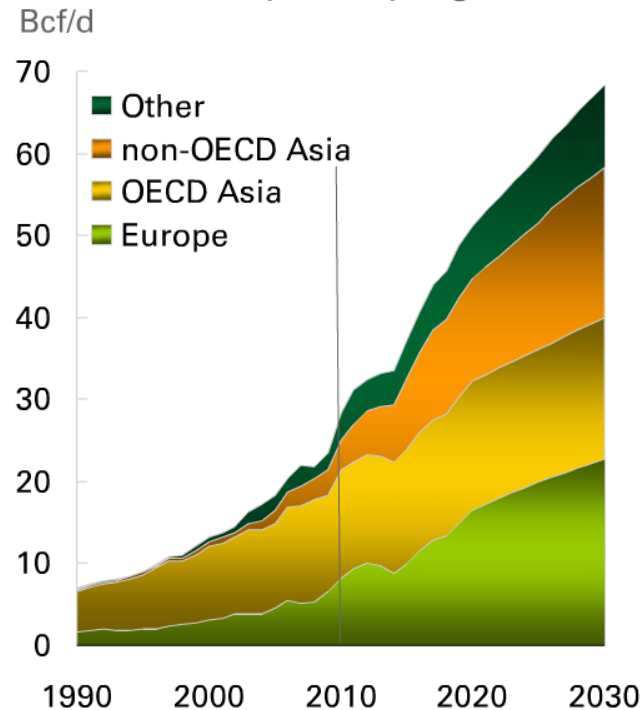
Prospects in addition

- East Africa
- Barents Sea
- ++

LNG exports by basin



LNG imports by region



# Gas is rapidly commoditising – becoming more like oil

## The bigger picture – two changes to mindset:

- Big oil decided it was short oil, peak prices were bad for the economy and cheaper gas at higher volume is better than almost no gas
- Gas markets are more liquid and global trading is growing
- Big gas buyers and especially importers have been squeezed between high oil-linked import prices and sustained lower spot prices

## Increasingly, gas competes with coal, not oil, on the margin

- Power generation is the most flexible demand – very price driven
- Currently, negative spreads in most European countries, coal profitable
- Gas buyers are now more interested in price and flexibility than origin

## Shale and other unconventional is growing the future reserves

- Now enough gas for more than 250 years
- Could well be available and affordable

# Recession has focused the mind

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## Trade balances and overall economy

- Much of the reluctance to LNG was linked to a perception of high price
- Some of the green ambitions are tested with low coal prices
- Important to keep industrial activity for recovery
- Low US gas prices are demonstrating this

## More gas is being developed without expecting oil-linked prices

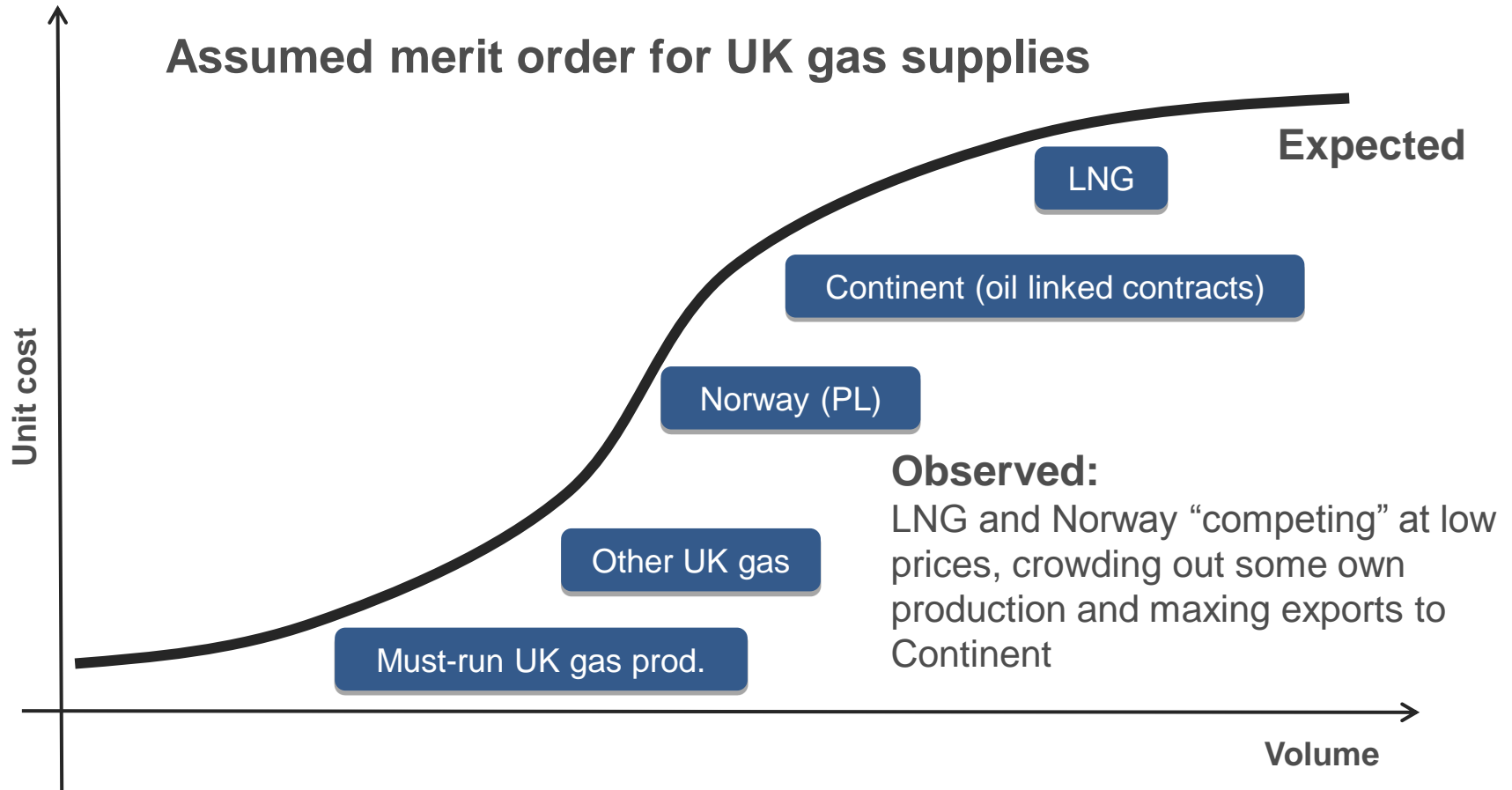
- US oversupplied with own production – much of this is shale
- EU oversupplied by different suppliers wanting better price
- Japan needs more but will also expect lower prices

## New ways of forecasting markets and planning developments

- More focus on margins – less on base load supplies
- This will bring more attention to small scale LNG

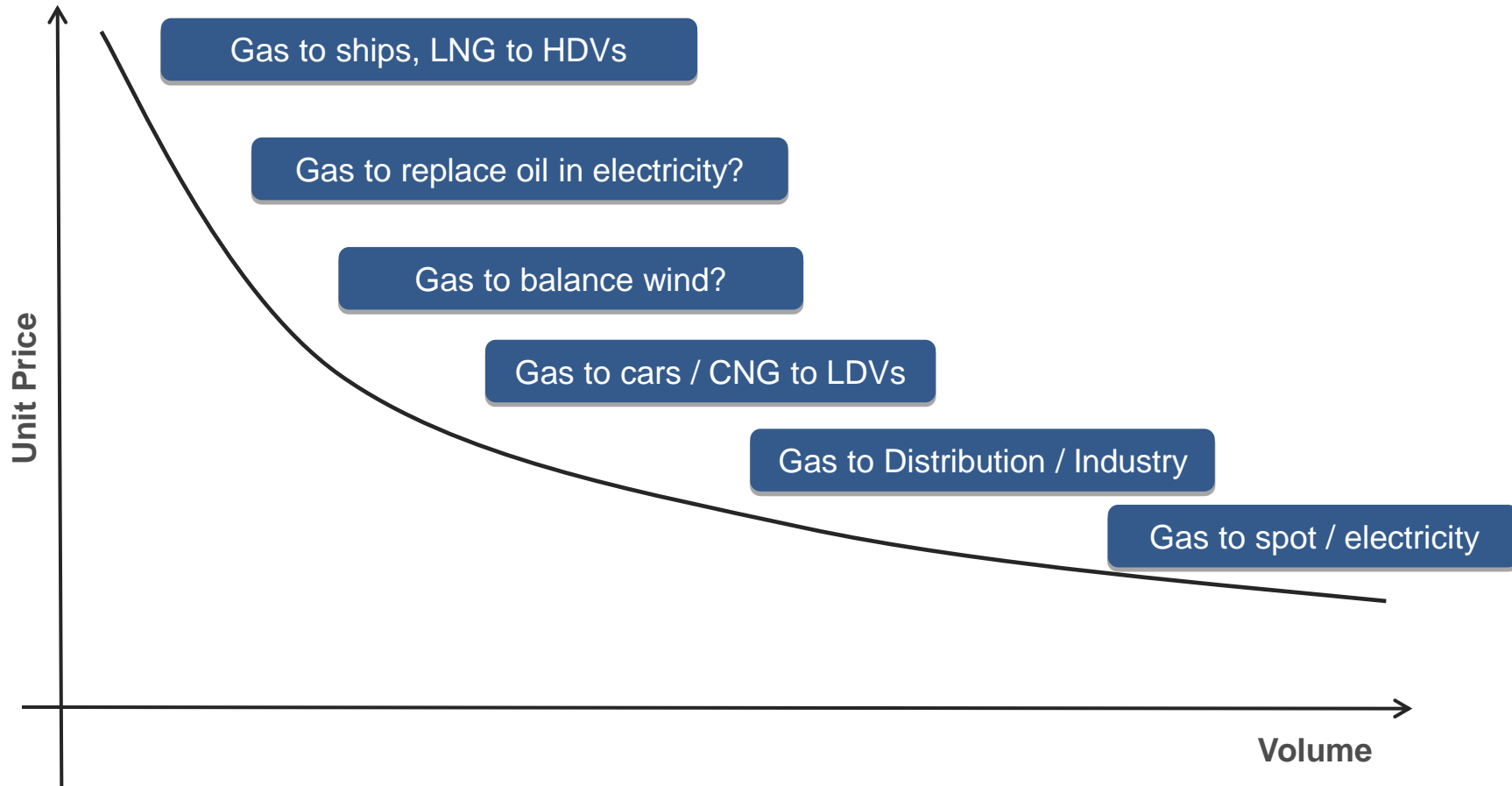


# Oversupply of gas has changed assumptions on cost



# ...and sellers are looking more at high value users

## Assumed demand curve



# Being an attractive business transforms small scale

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## **Many gas sellers are attracted by new market segment**

- Whole sale, LNG, distribution, even bunkering companies
- New volume at high value

## **Infrastructure moves from “major barrier” to “enabler”**

- Relatively low cost, compared to possible new market
- Also synergies with other operations:
  - Storage/balancing
  - Transport sector

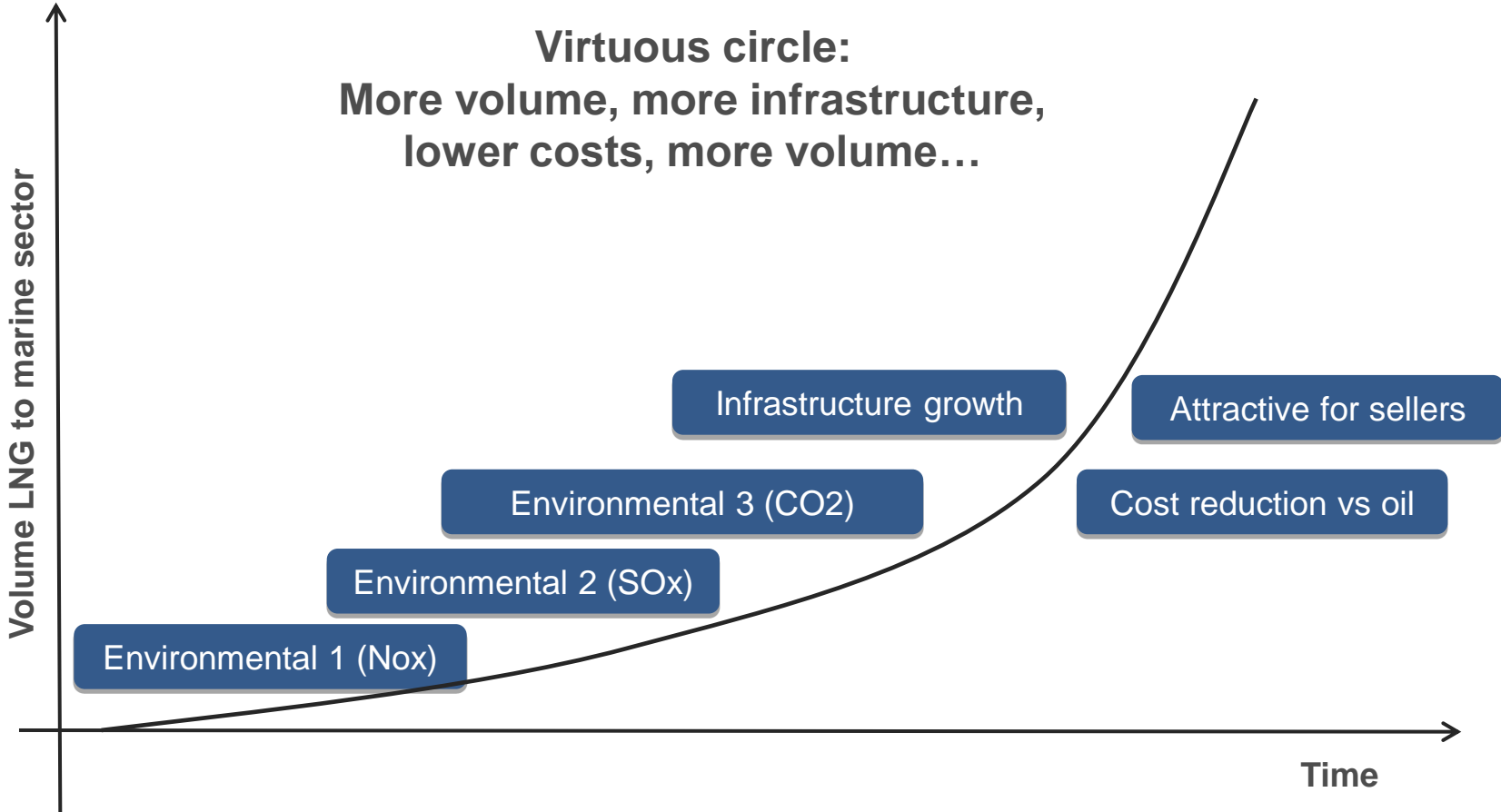
## **Even large scale LNG is attracted**

- Much better margin than regasification for oversupplied spot market

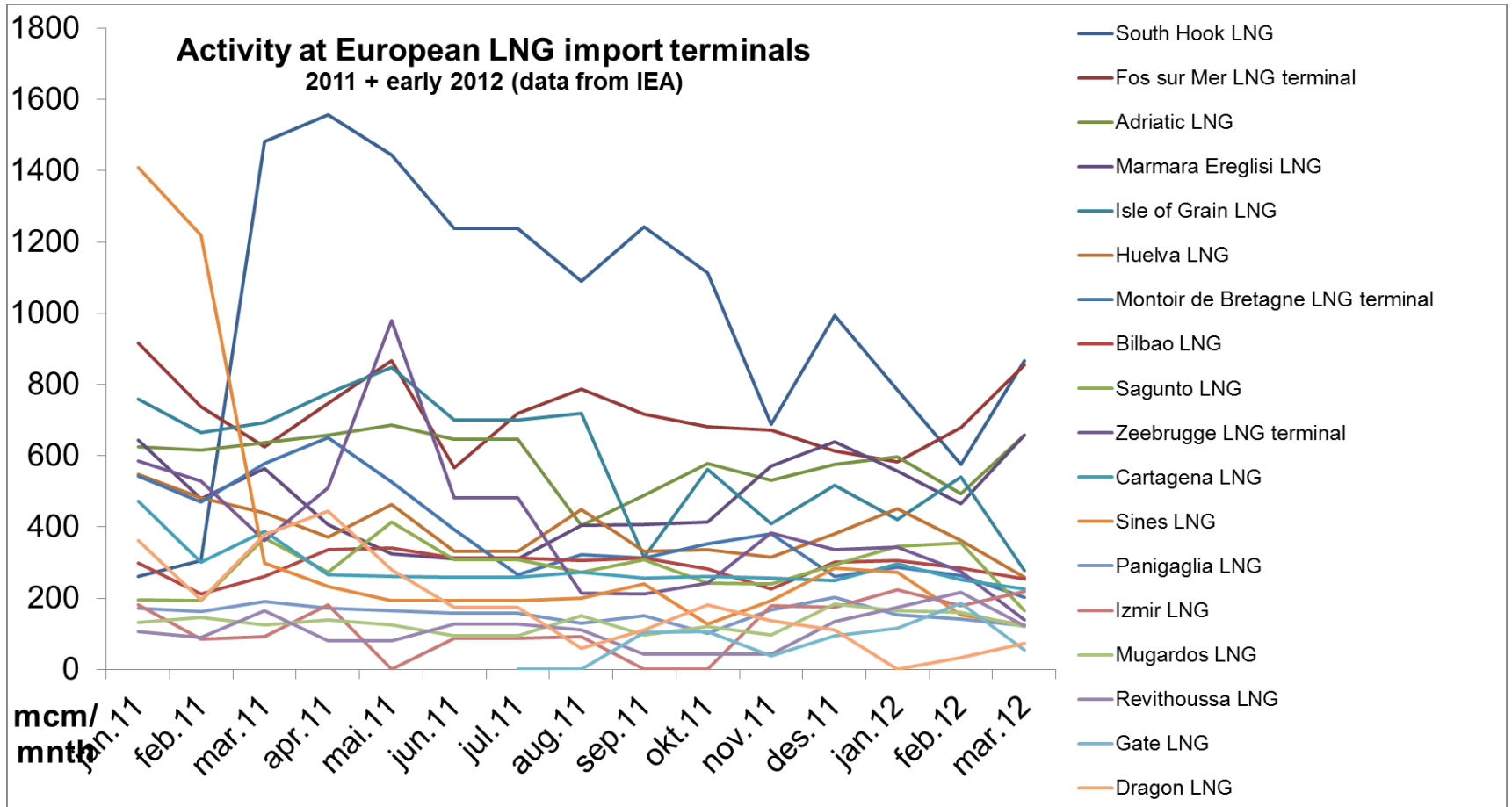
## **With unconventional gas growing, more small scale expected**

- New production, improves security of supply and preferences

# This speeds up the use of LNG in marine sector!



# There is much spare capacity at terminals – use it!



# Societal benefits could justify government money

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**Less emissions**

**Better transport solutions**

**Quicker development of profitable solutions**

- Investments paid back in benefits and tax revenues quickly
- Some can be done by regulations – access regimes etc

**Almost not justified to NOT do anything?**

- Some are: EU, DMA, others
- Public service obligation?

# Seeing small scale LNG in a full picture perspective

**LNG for bunkering has many benefits and could be accelerated!**

## **Environment**

- Climate, sulphur, particles and oil spills - especially in the Arctic!

## **Shipping essential industry to transport goods**

- Opportunities for cheaper fuels will make it more sustainable,
  - both environmentally and economically
- also hub for trucks that could use LNG for same reasons as ships
  - would be good for urban air + economy!

## **Steady organic growth will happen by itself – gradual but slow**

- Several developers building infrastructure and offering LNG

## **Acceleration is possible and may be worth the effort**

- Competition, standardization, political will, estimation of value to society (climate, efficiency, other pollution, better transport etc)
- TPA, central infrastructure ++

# We are happy to discuss further!

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## **Selected recent work by Sund Energy that may be of interest**

- Scenarios for European gas 2020 – prices and flows
- Gas for transportation (road + sea) + biogas
- Workshops on LNG to marine sector

## **Currently working on related issues**

- Best solutions for gas development – Norway ++
- Gas to industry in Norway – prices and terms
- LNG sourcing globally

## **We offer strategic and commercial advice + partner selection**

- Producers, TSOs, traders, large buyers, governments
- Gas, electricity, environment and more

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