



# FTA Fleet Engineer Conference

## LNG – Myths and Magic

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# Diesel as a HGV fuel

## Challenging issues for HGV operators



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- Reliable technology
- Established refuelling infrastructure
- Well understood cost structure
- Is there an alternative?

## Financial facts

Healthcare

15%

16%

Onsite

69%

Industrial

Total UK & Ireland & of Sales (2017)

## Operational highlights

4,100

deliveries per  
day Industrial,  
Healthcare and  
Hospitality



400,000  
customers

Delivery vehicles

305  
cylinder

115  
bulk

94  
cryospeed

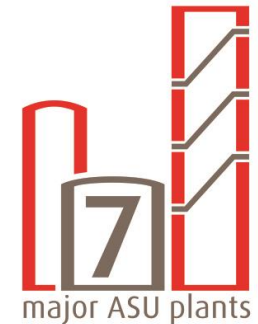


40,000  
cylinders  
filled per day

Total Employees

3138

(as on Dec 2016)



7  
major ASU plants

## Customer engagement



58  
Gas & Gear  
retail stores

BOC GAS & GEAR



345  
local  
cylinder  
Agents



75,500  
registered  
online  
customers

[www.boconlineshop.com](http://www.boconlineshop.com)



# BOC Clean Fuels

## LNG, hydrogen & fuel cells

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## Myth 1

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Can't get the range

## Myth 2

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Trucks unreliable,  
no warranty

## Myth 3

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No infrastructure

## Myth 4

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Difficult to refuel

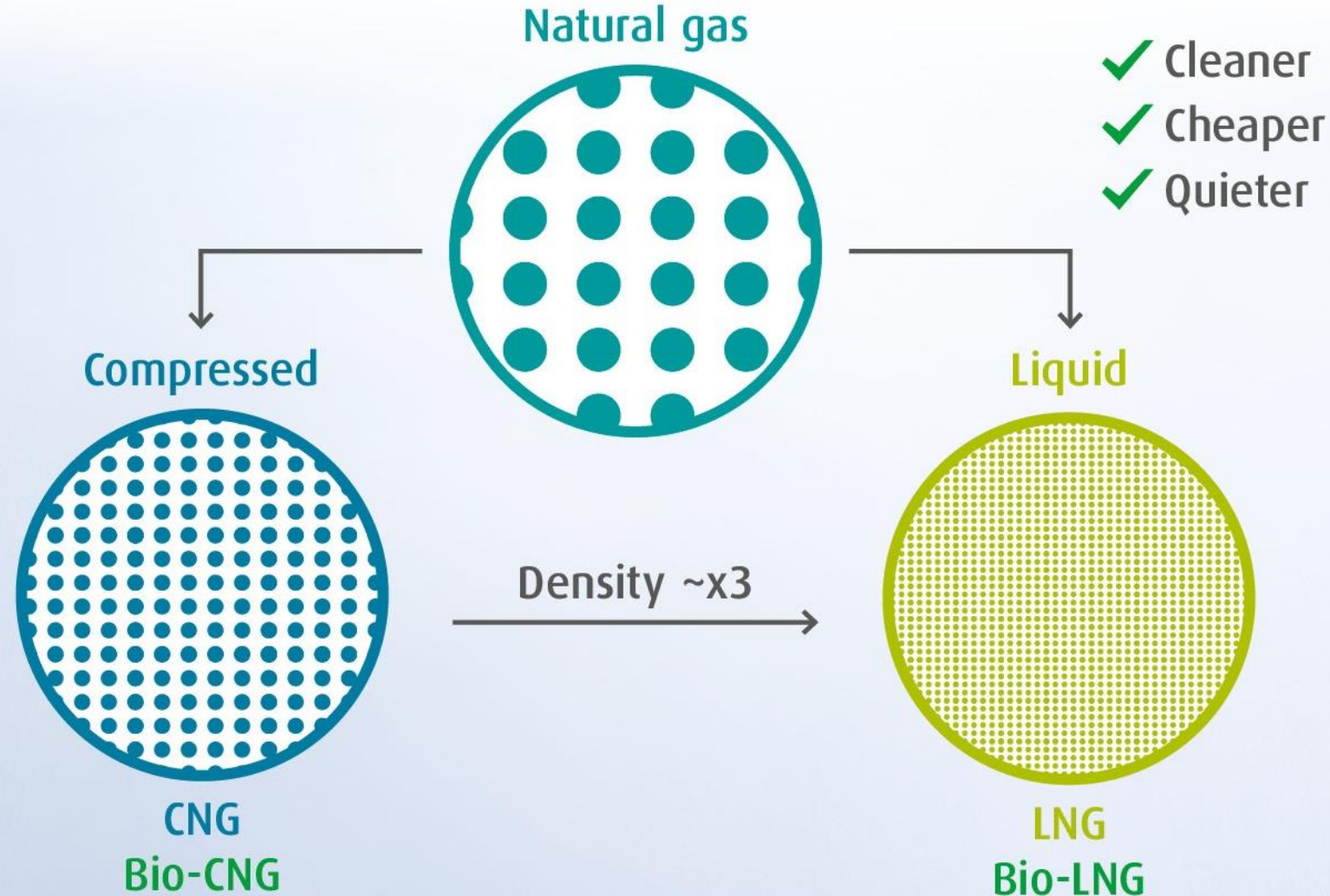
# Myth 1 – Can't get the range

LNG vs CNG - same gas but LNG has greater energy density

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# Myth 1 – Can't get the range

LNG gives adequate range for real world operations

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CNG

LNG



~ 500 km

Up to 1500 km



x

Up to 750 km

# Myth 2 – Trucks unreliable/no warranty

Range of full OEM products from various manufactures

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# Myth 3 – No infrastructure

## On road refuelling and B2B solutions from BOC



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### LNG systems

- Vapour recovery system<sup>1</sup>
- Liquid nitrogen conditioning
- Mass flow meter
- Link to BOC delivery planning & customer fuel management systems (Triscan, Tokheim etc)



### Support

- 100+ years experience of cryogenic gases
- Supply many process critical customers
- 24/7 delivery planning centre
- Field based support Engineers

# Myth 4 – Difficult to refuel

Training given for drivers, time comparable to diesel

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# Magic – Cleaner than diesel

CO2 reduction – 10 to 20% with LNG & 90%+ with BioLNG



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## NEW STRALIS NP 460 HP

THE TRUCK FOR OUR PLANET

**-10% CO<sub>2</sub>**  
WHEN RUNNING WITH FOSSIL NATURAL GAS  
ON MOTORWAY OPERATION

**-95% CO<sub>2</sub>**  
WHEN RUNNING WITH BIOMETHANE

## NEW STRALIS NP 460 HP

THE TRUCK FOR OUR PLANET

-90% NO<sub>2</sub> V EURO VI LIMITS

-99% PM V EURO VI LIMITS

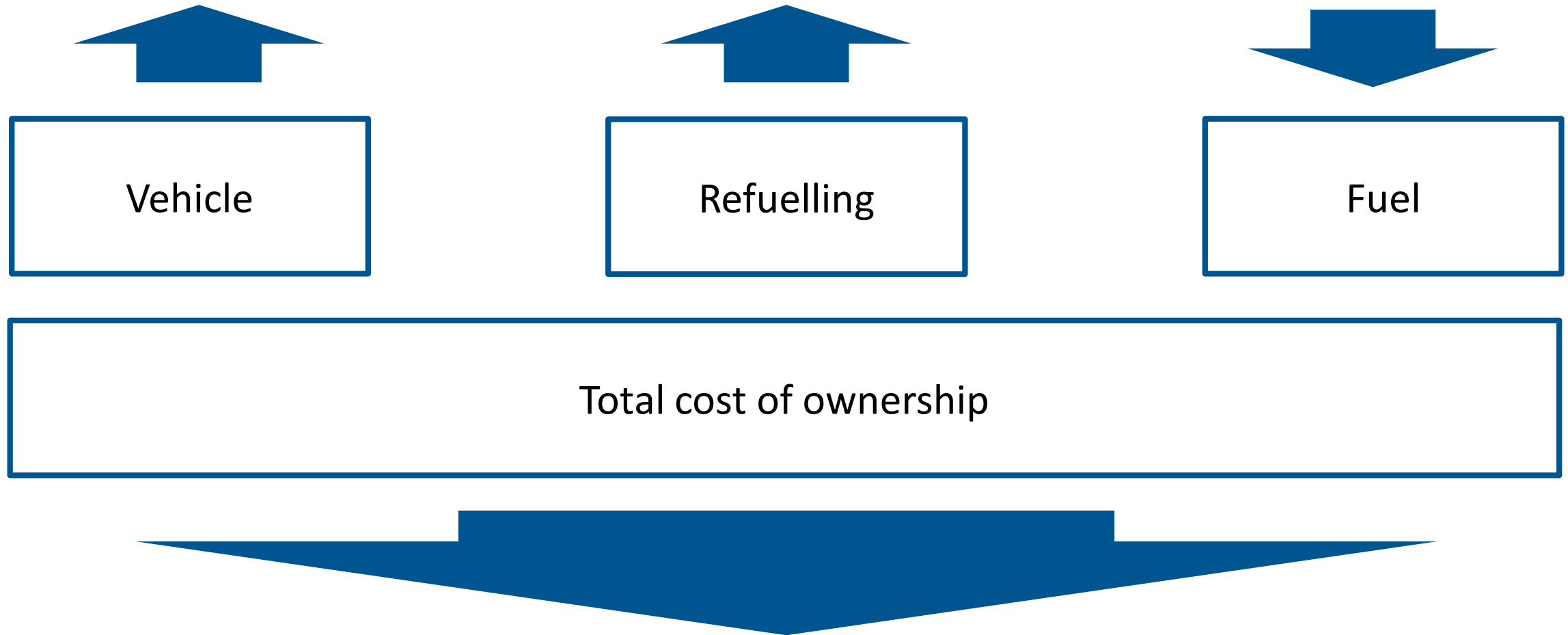


The gas-powered Volvo FH LNG runs on Liquefied Natural Gas – LNG. As a result it emits 20% less\* CO<sub>2</sub> than a regular Volvo FH. Allowing transport operators to take big steps towards sustainable transports. When fuelled with bio-LNG, CO<sub>2</sub> emissions can be reduced by 100%\*.



# Magic - Cheaper

Lower total cost of ownership



# Customer experience with LNG

## Back to base installation



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## Myth 1

Can't get the range

**1500  
km**

## Myth 2

Trucks unreliable,  
no warranty



## Myth 3

No infrastructure



## Myth 4

Difficult to refuel



# LNG – Magic

A cleaner and cheaper alternative to diesel

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