



# Low Emission Logistics

Citylab

27<sup>th</sup> January 2017

# What will be covered?

- Introduction
- Problem
- Baseline
- Emissions modelling
- Obstacles
- Recommendations



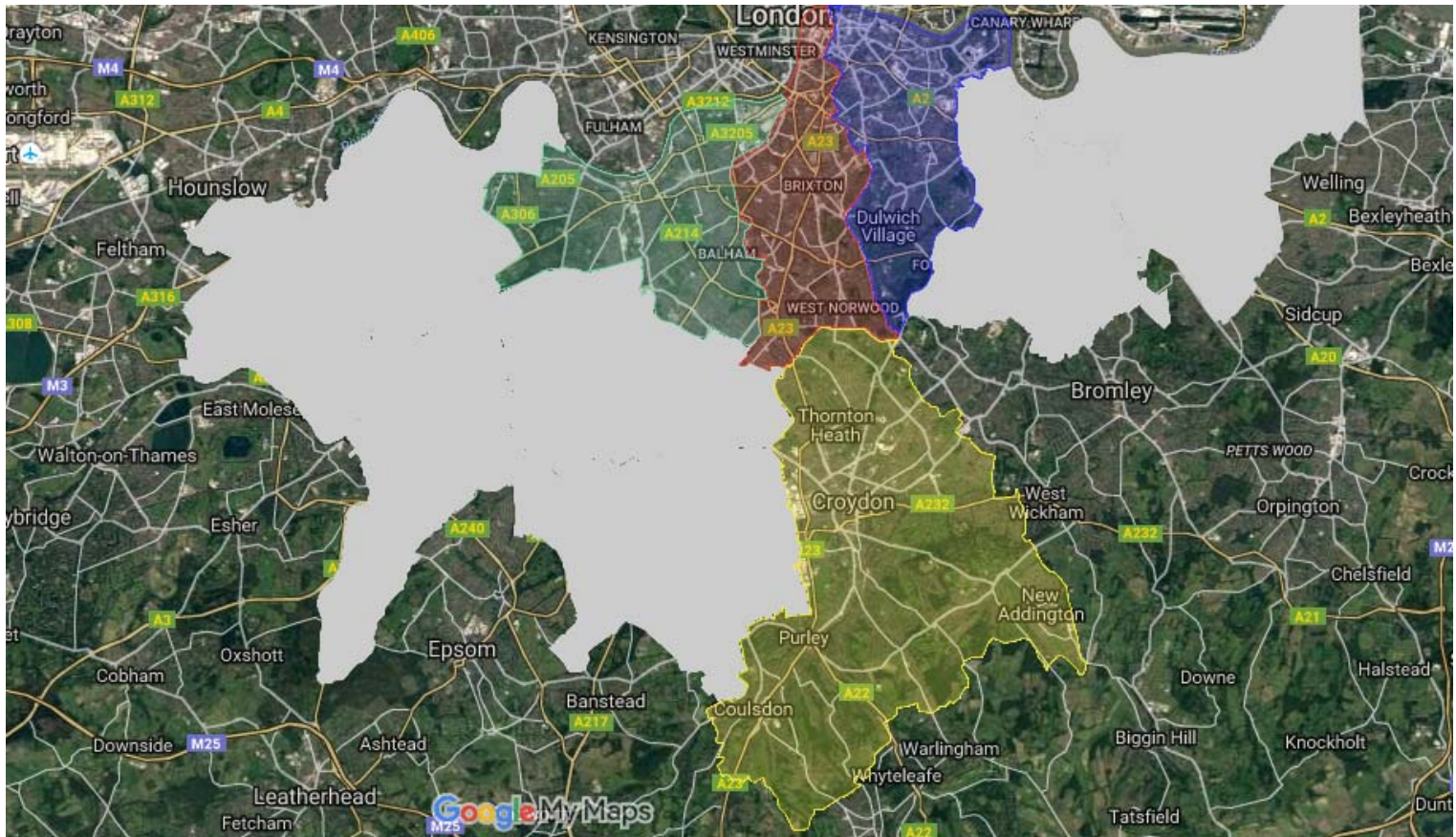
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# Introduction

- Funded through the second round of the Mayors Air Quality Fund (MAQF2)
- 3 years from 2016/17 – 2018/19
- Lambeth – lead borough partnering with Southwark, Croydon and Wandsworth councils.



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# Introduction - Aims and objectives

- Aim is to reduce the number of delivery vehicles in each borough
- To reduce congestion, improve air quality and provide opportunities to reduce operational costs.
- Identify priority areas where consolidation solutions can be introduced in a cost-effective way
- **Target: Achieve 40% reduction in emissions**



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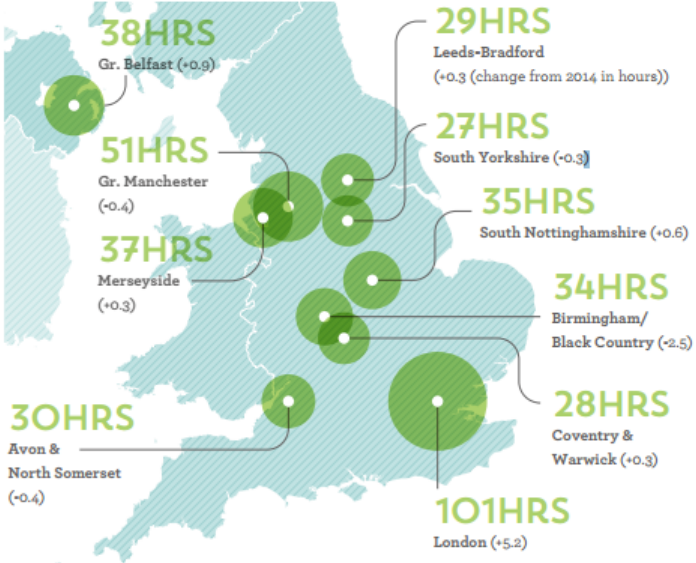
# Problem



# Problem - Congestion

- 2015 study by INRIX shows 101 hours wasted by drivers sat in congestion in London
- Population growth = worsening congestion, air quality, road safety, economic cost.....

THE TOP 10 MOST CONGESTED CITIES IN THE UK  
(HOURS WASTED ANNUALLY PER DRIVER IN 2015):



The UK's 10 most congested roads in 2015  
(ranked by annual hours wasted):

- LONDON:**
- A217 - 110.32 hrs  
Rosehill Roundabout to New Kings Road
  - A215 - 84.04 hrs  
Albany Road, Camberwell to Shirley Road, Croydon
  - A4 - 80.96 hrs  
Henlys Roundabout, Hounslow to Holborn Circus
  - A4 - 77.96 hrs  
Aldwych to Henlys Roundabout, Hounslow
  - A23 - 76.12 hrs  
Thornton Heath to Westminster Bridge
- OUTSIDE OF LONDON:**
- Edinburgh A8 - 42.96 hrs  
Princes Street to Maybury Road
  - Manchester A580 - 33.48 hrs  
Boothstown, Worsley to Swinton Park, Manchester
  - Manchester M60 - 23.2 hrs  
J9 Trafford Park to J13 Worsley
  - Newcastle A1/A1M - 22.92 hrs  
Washington-Birtley Services to Lobley Hill, Gateshead
  - Manchester A5103 - 21.16 hrs  
M60 J5, Northenden to Mancunian Way

UK CONGESTION BY NUMBERS:

**4.2 DAYS**

Number of hours wasted in traffic by the average London driver

**8.6M**

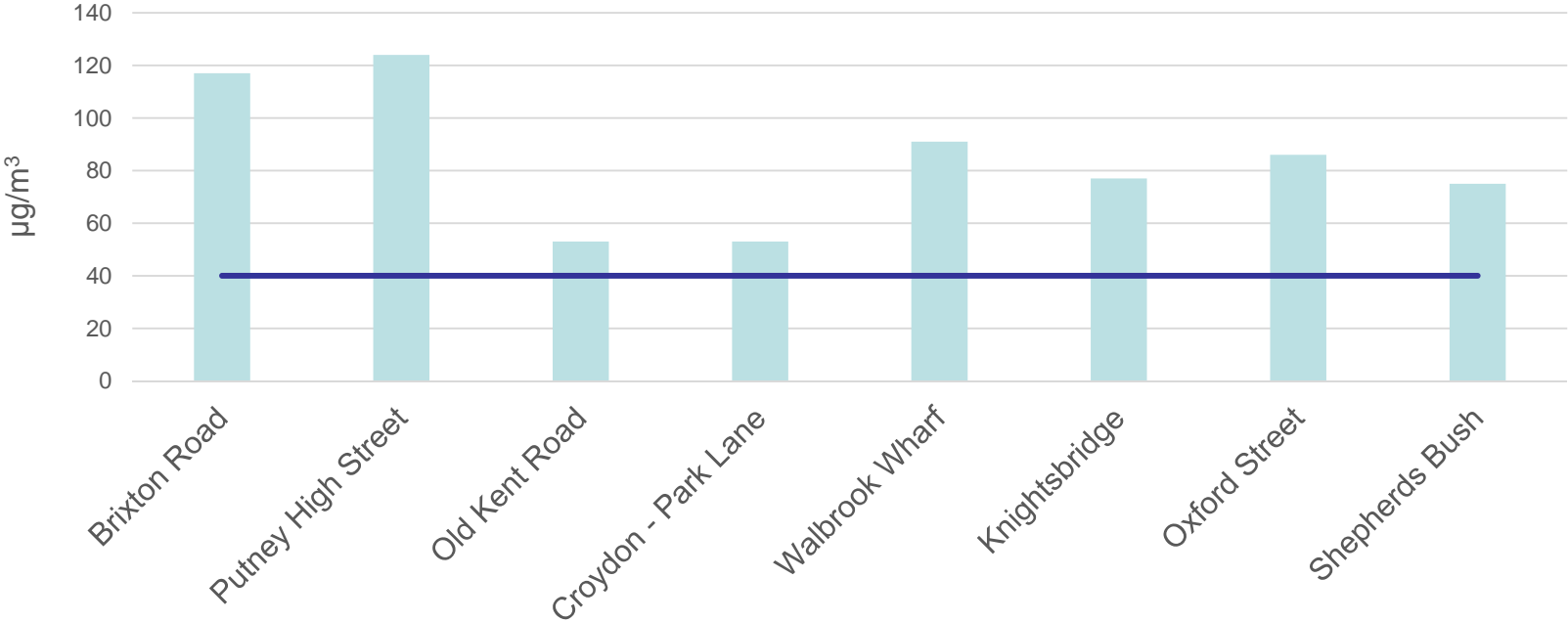
London's population in 2015 - the highest since its 1939 peak, increasing year-on-year by more than 100,000

**30 HRS**

Average yearly delay on the UK's roads - the sixth most congested country in Europe

# Problem – Air quality

London - Nitrogen Dioxide Annual Mean Air Quality Objective Limit Compliance





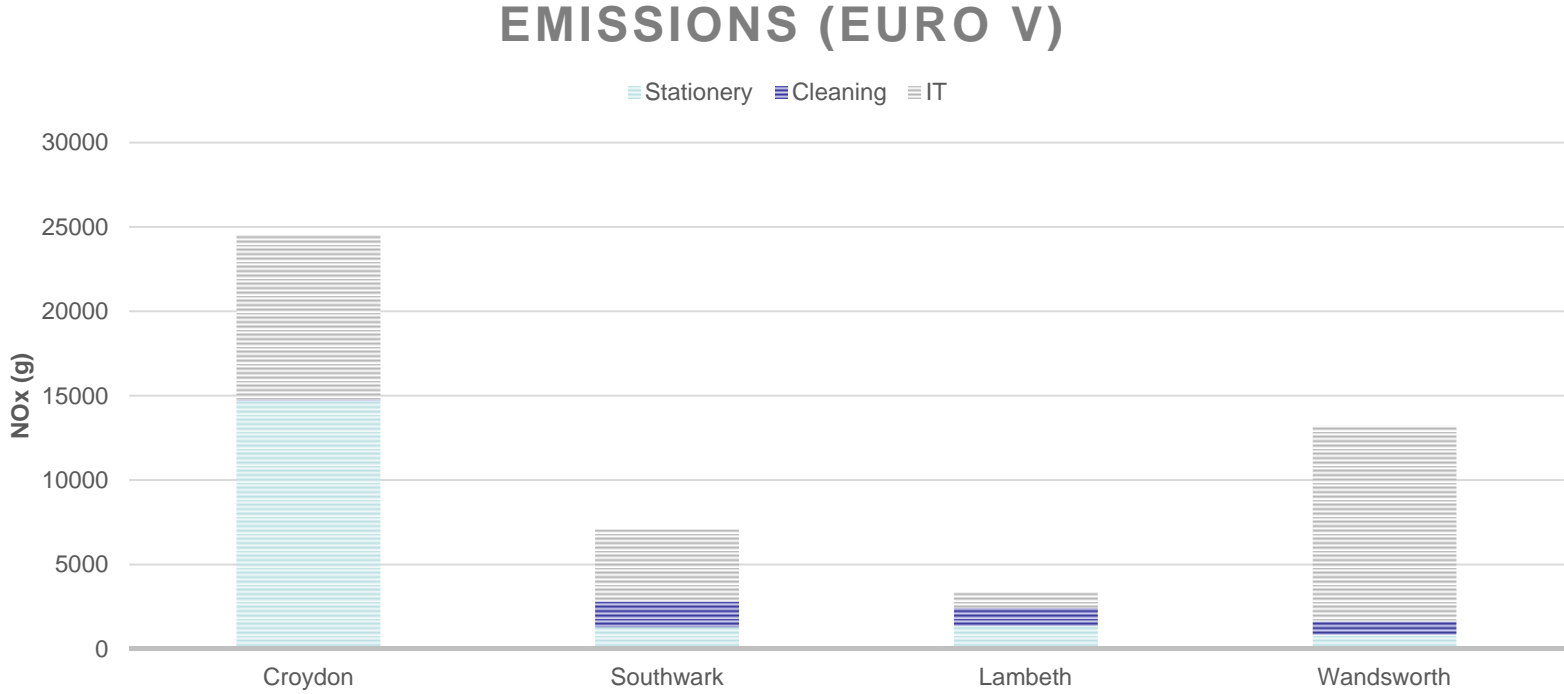
# Baseline – what to consider?

- How do we currently order and receive supplies?
- Why is it done this way?
- What potential is there for creating efficiencies?
- What is the cost and environmental impact of current practice?



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# Baseline emissions – main supplies



# “Efficient Deliveries Hierarchy”

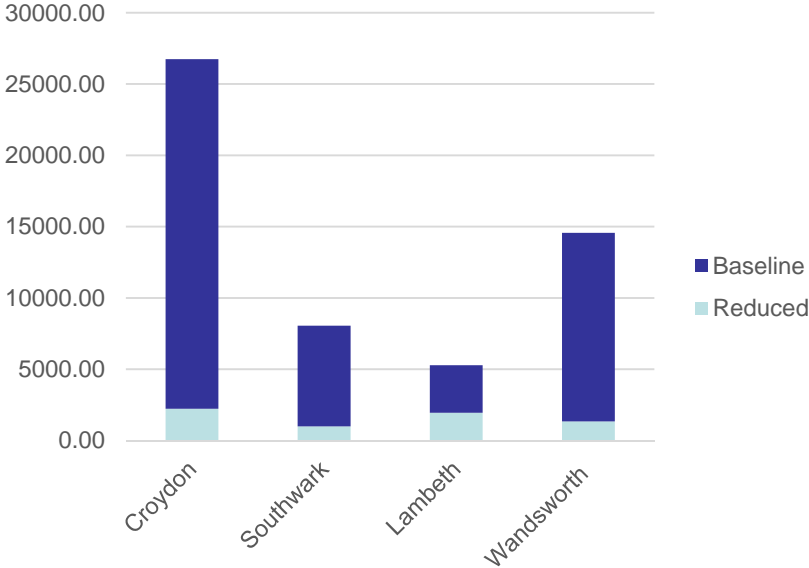
- Reduce
- Share
- Consolidate



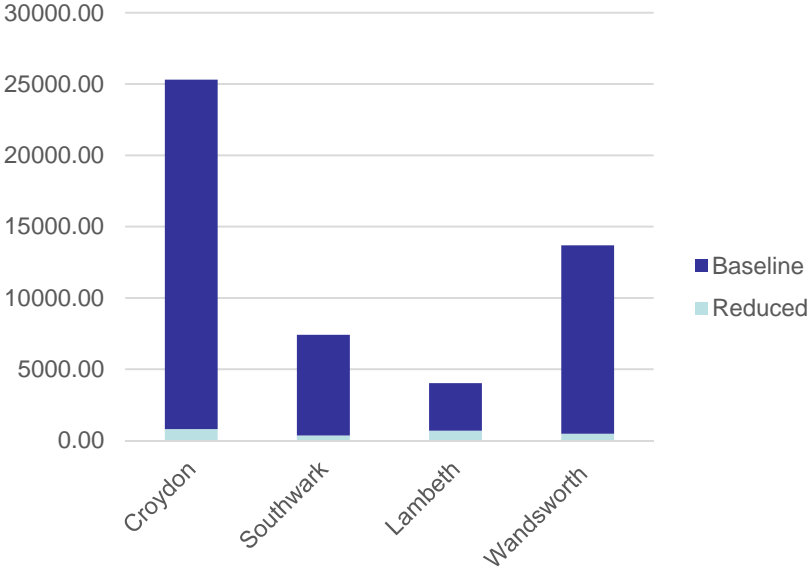
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# Modelled emissions – reduced deliveries

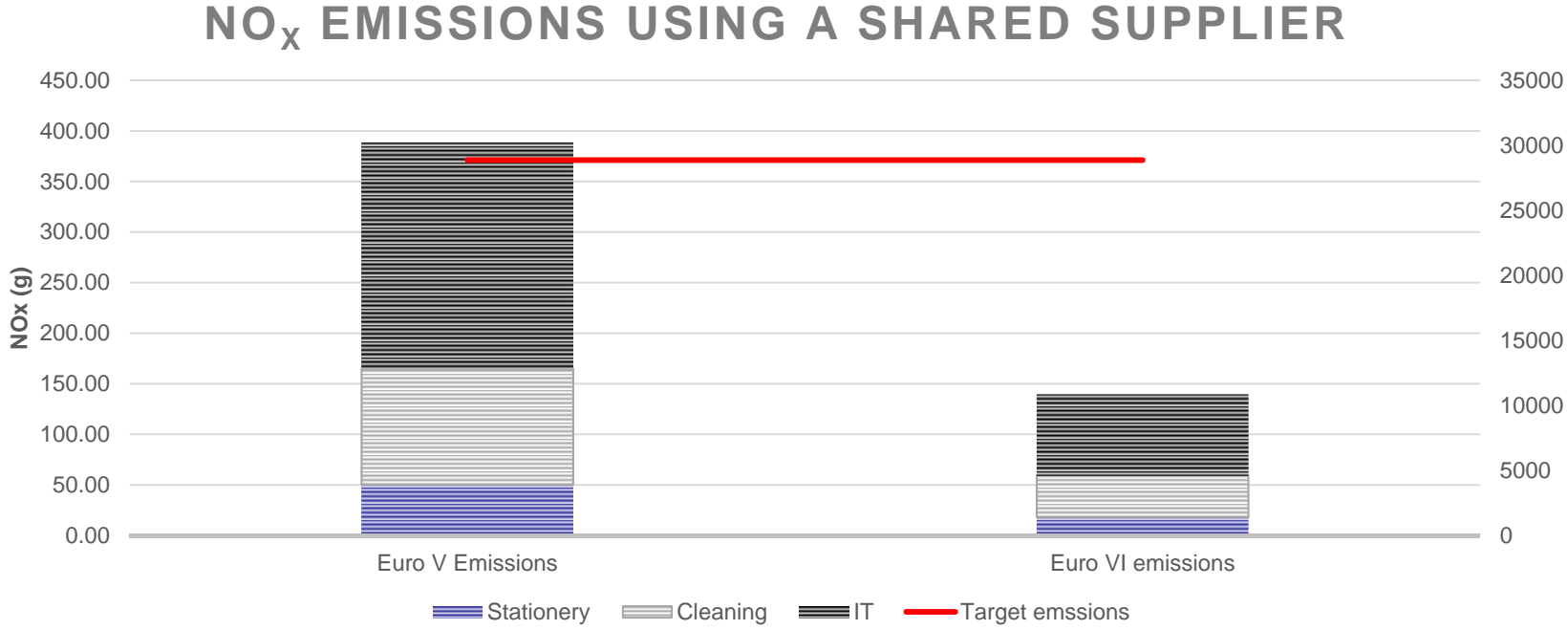
Euro V NOx emissions (g) after reduction



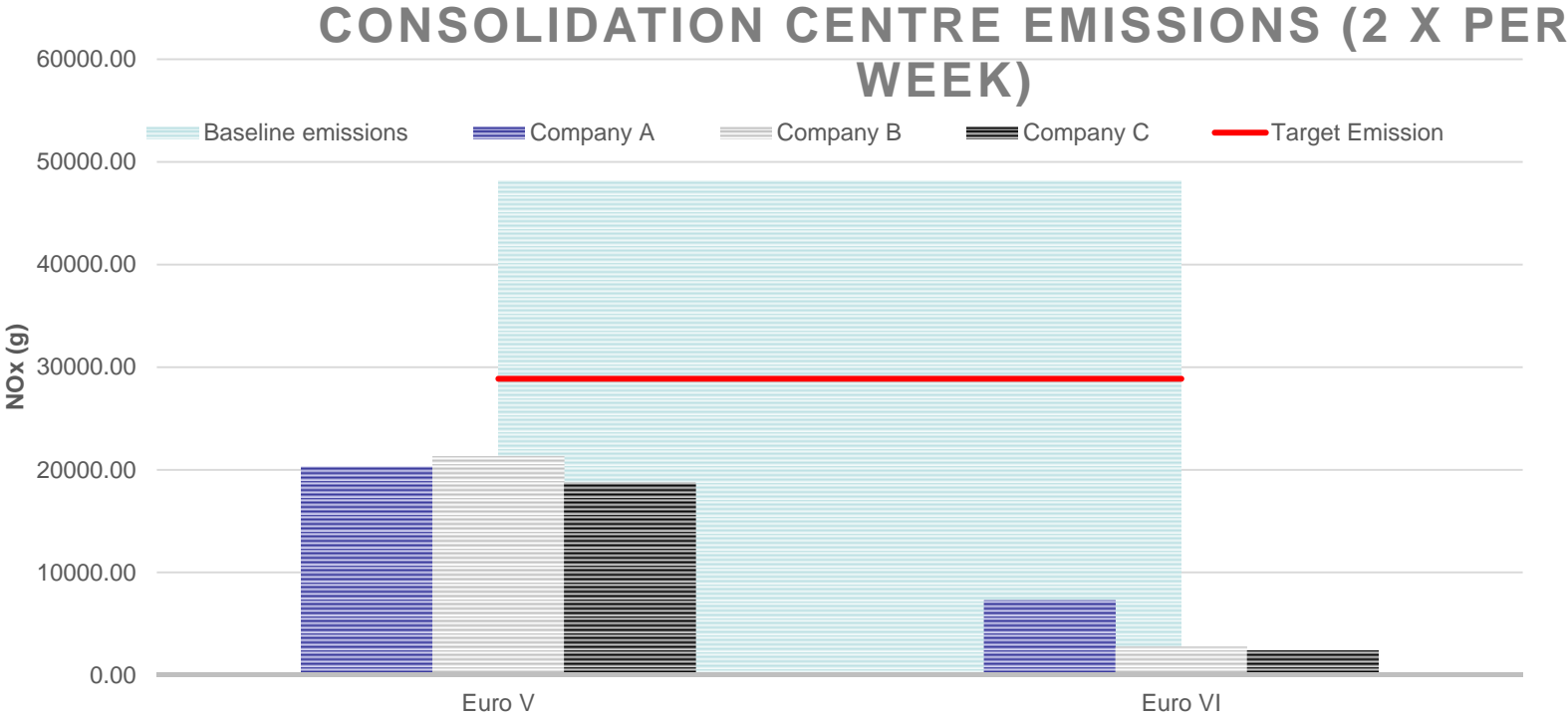
Euro VI NOx emissions (g) after reduction



# Modelled emissions – Shared supplier



# Modelled emissions – Consolidation Centre



# Obstacles

- No perceptible problem
- Disconnection between own behaviour and wider issues
  - “Reducing congestion is TfL’s problem”
  - “Improving air quality is down to the Mayor/council”
- Commercial needs
- Reluctance to change
- Perception of no control/additional cost
- Time/resources



# Authors recommendations – short term

- Consider deliveries in all contracts
- Local suppliers
- ULEVs
- Work related road risk (WRRR)
- Transparent pricing structure



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# Authors recommendations – medium term

- Business engagement
- Identify areas for micro-consolidation
- Planning conditions for new developments
- Mandatory DSPs in London Plan
- ULEZ upgrade to require delivery vehicles to be ultra-low emission



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# Authors recommendations – Long term

- Establishment of North, East, South and West London consolidation centres
- Congestion charge exemptions for consolidation centre vehicles
- Mandatory zero emission delivery vehicles within Central London



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Thank you for listening.

For further information please contact  
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<http://love.lambeth.gov.uk/low-emission-logistics-project/>



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