



LONDON LOW EMISSION  
CONSTRUCTION PARTNERSHIP



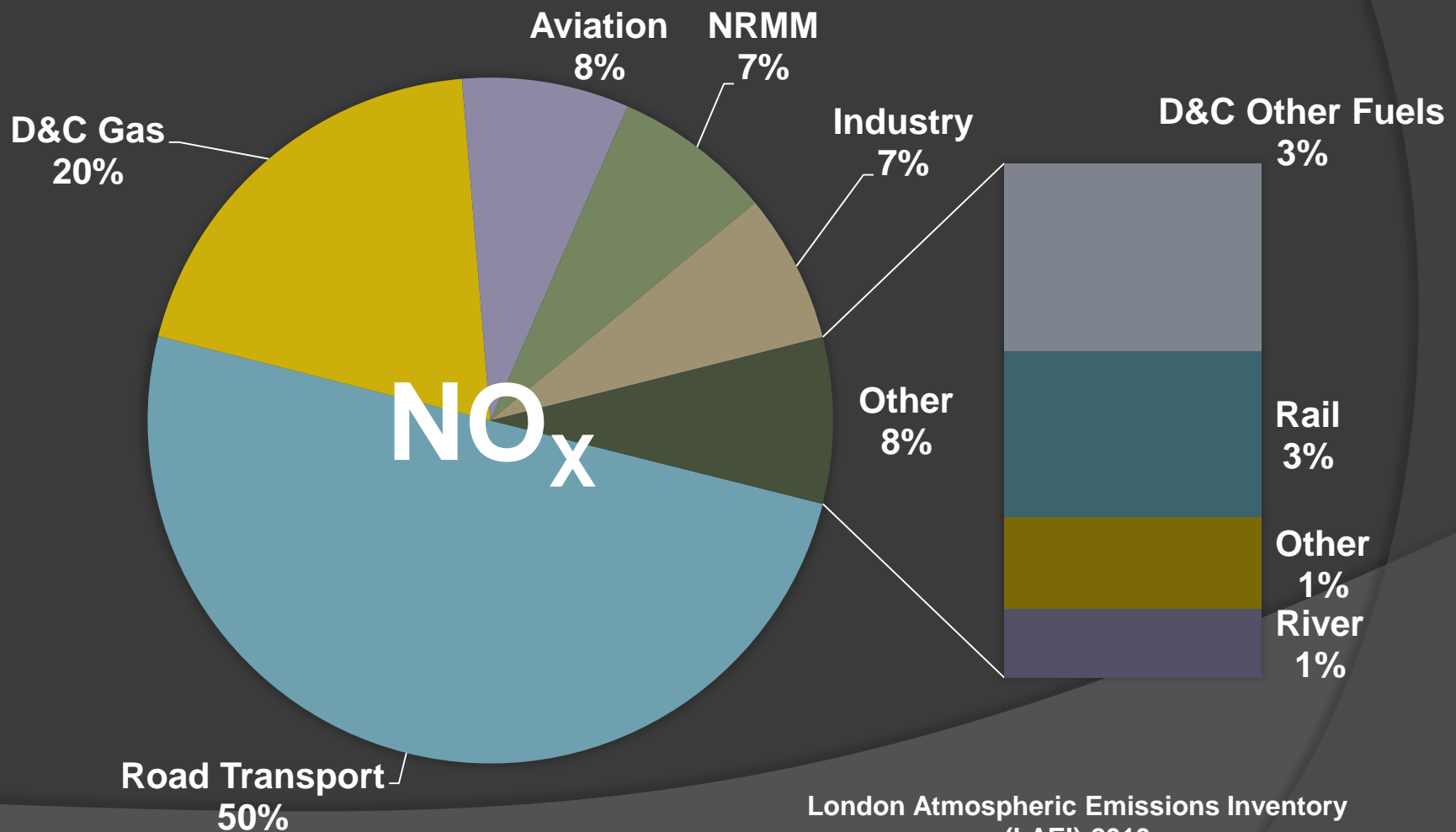
# Low Emission Construction Partnership Update

Cleaner Machinery for London Seminar

3<sup>rd</sup> February 2013

David Green and Daniel Marsh  
Robert Hepburn and Andrew Brook

# Why are construction emissions important?



London Atmospheric Emissions Inventory  
(LAEI) 2013



**LONDON LOW EMISSION**  
CONSTRUCTION PARTNERSHIP

## Industry Outreach

- Raising awareness of industry impacts on local air quality
- Encourage uptake of 'cleaner' mitigation measures
- Seminars

## Testing

- Measure 'real world' emissions
- Emission reduction trials
- Improve pollution monitoring and quality of data

## NRMM

- LEZ enforcement
- Policy support
- NRMM database

***Phase 1: 2014-16***  
***Phase 2: 2016-19***



**LONDON LOW EMISSION**  
CONSTRUCTION PARTNERSHIP

## Industry Outreach

- Raising awareness of industry impacts on local air quality
- Encourage uptake of 'cleaner' mitigation measures
- Seminars

## Testing

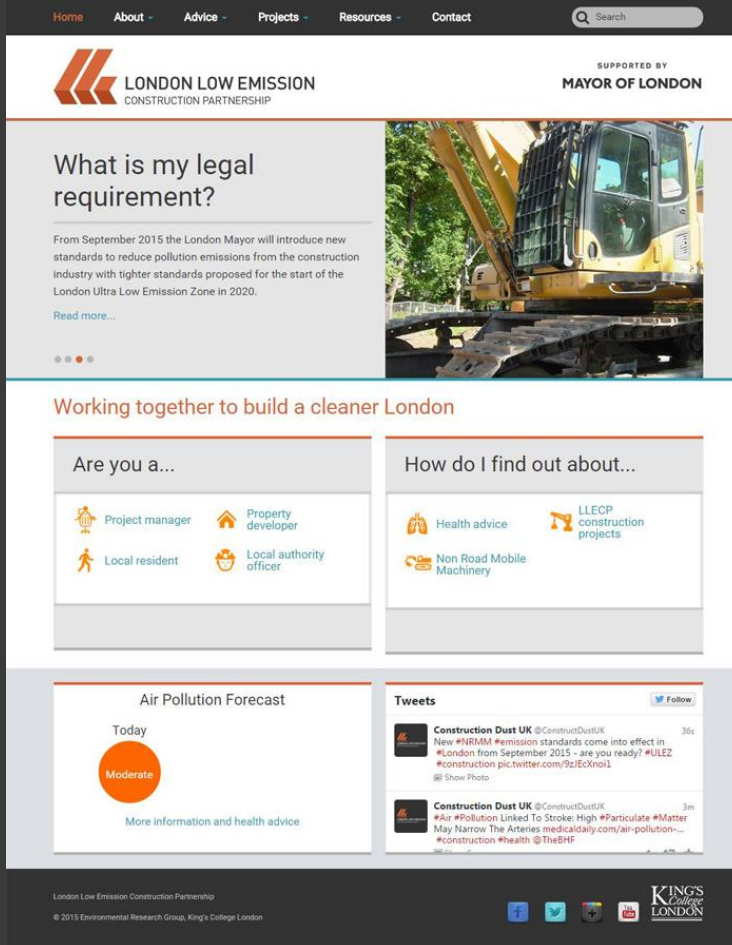
- Measure 'real world' emissions
- Emission reduction trials
- Improve pollution monitoring and quality of data

## NRMM

- LEZ enforcement
- Policy support
- NRMM database

***Phase 1: 2014-16***  
***Phase 2: 2016-19***

# LLECP Website and Twitter



- llecp.org.uk
  - 2,247 Users in 2016
  - 76% new visitors
- @ConstructDustUK
  - >1,500 followers within the target industry
  - >2,000 tweets

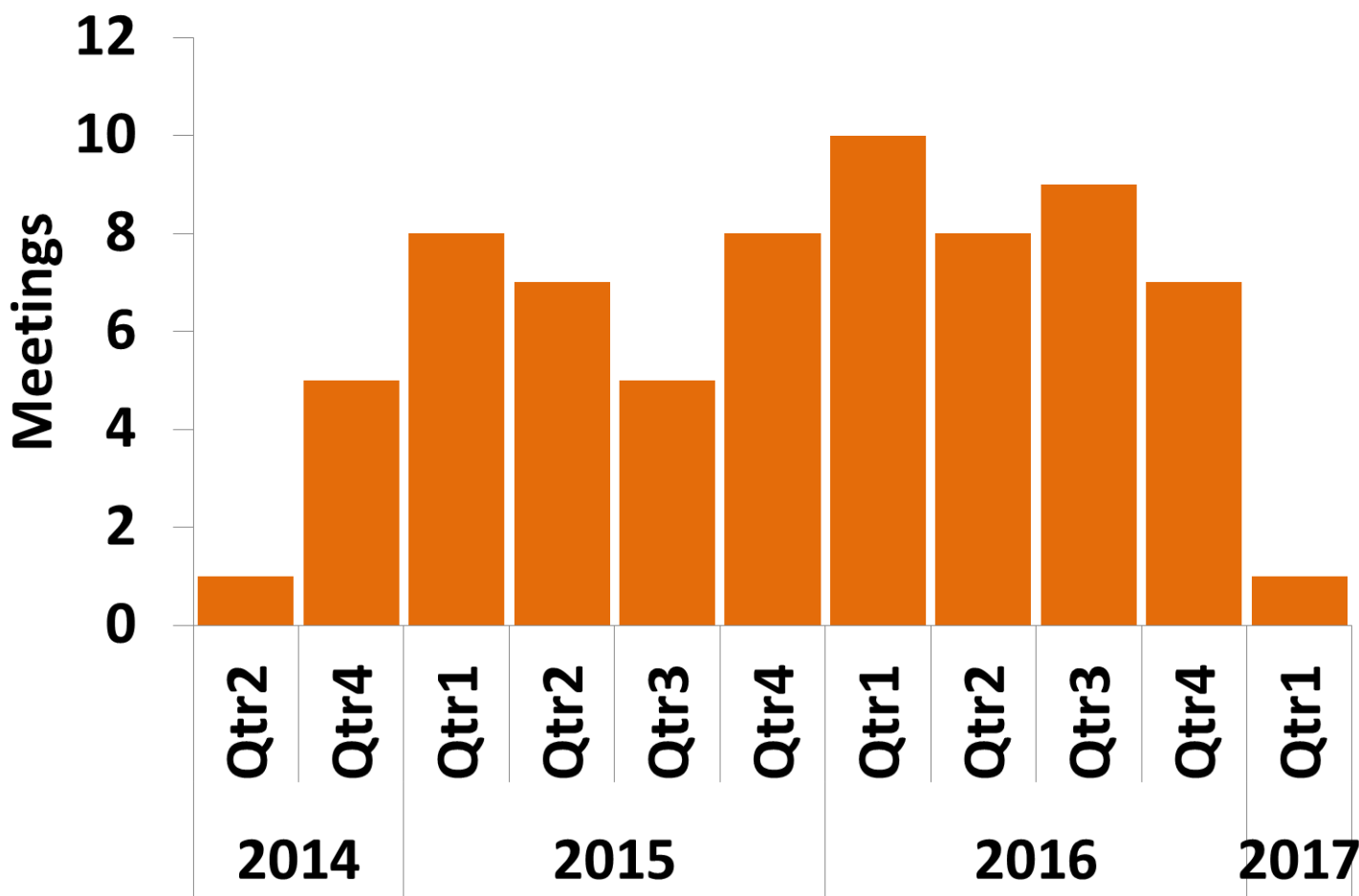


# Outreach...





# Balfour Beatty





# Success?



National Air Quality Awards



Institute of Air Quality Management Award







**LONDON LOW EMISSION**  
CONSTRUCTION PARTNERSHIP

## Industry Outreach

- Raising awareness of industry impacts on local air quality
- Encourage uptake of 'cleaner' mitigation measures
- Seminars

## Testing

- Measure 'real world' emissions
- Emission reduction trials
- Improve pollution monitoring and quality of data

## NRMM

- LEZ enforcement
- Policy support
- NRMM database

***Phase 1: 2014-16***

***Phase 2: 2016-19***

# Improve pollution monitoring

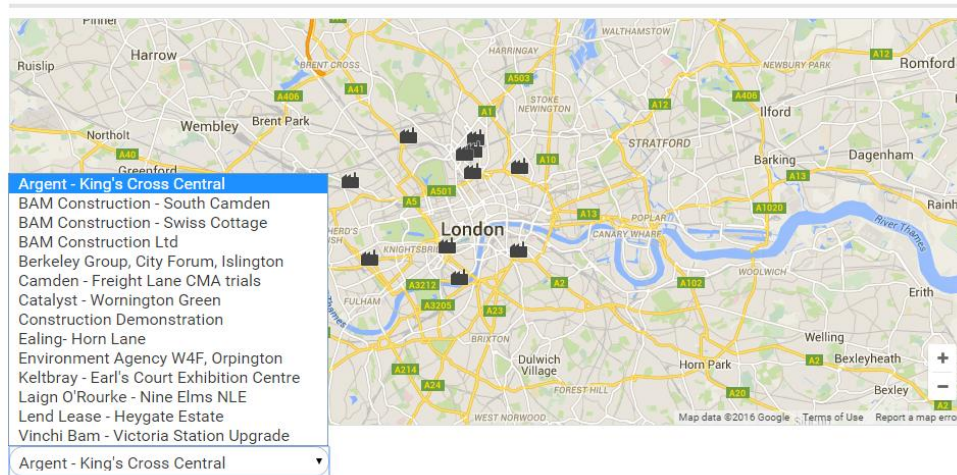
Home About Advice NRMM Projects Resources Contact

Search



SUPPORTED BY  
MAYOR OF LONDON

## Projects Map



This map shows projects where measurements are available. Select a project from the list or map to show details. Access beyond this page is restricted to authorised users.

[Go back to the projects overview](#)

Thank you for accepting cookies. You can now hide this message or find out more about cookies.

Hide

More info



SUPPORTED BY  
MAYOR OF LONDON

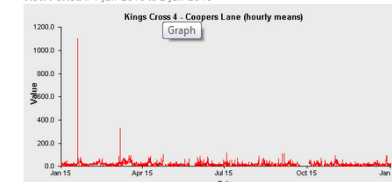
## Graphing tools

2. Select time period: 1 Jan 2015 to 2 Jan 2015

3. Select averaging period: Hourly

[replot the graph](#)

Warning: Data for species PM10 for selected period has not been ratified and must be considered with care. Why?  
View Period: 1-Jan-2015 to 2-Jan-2016



### Air Pollution Forecast

Today

Low

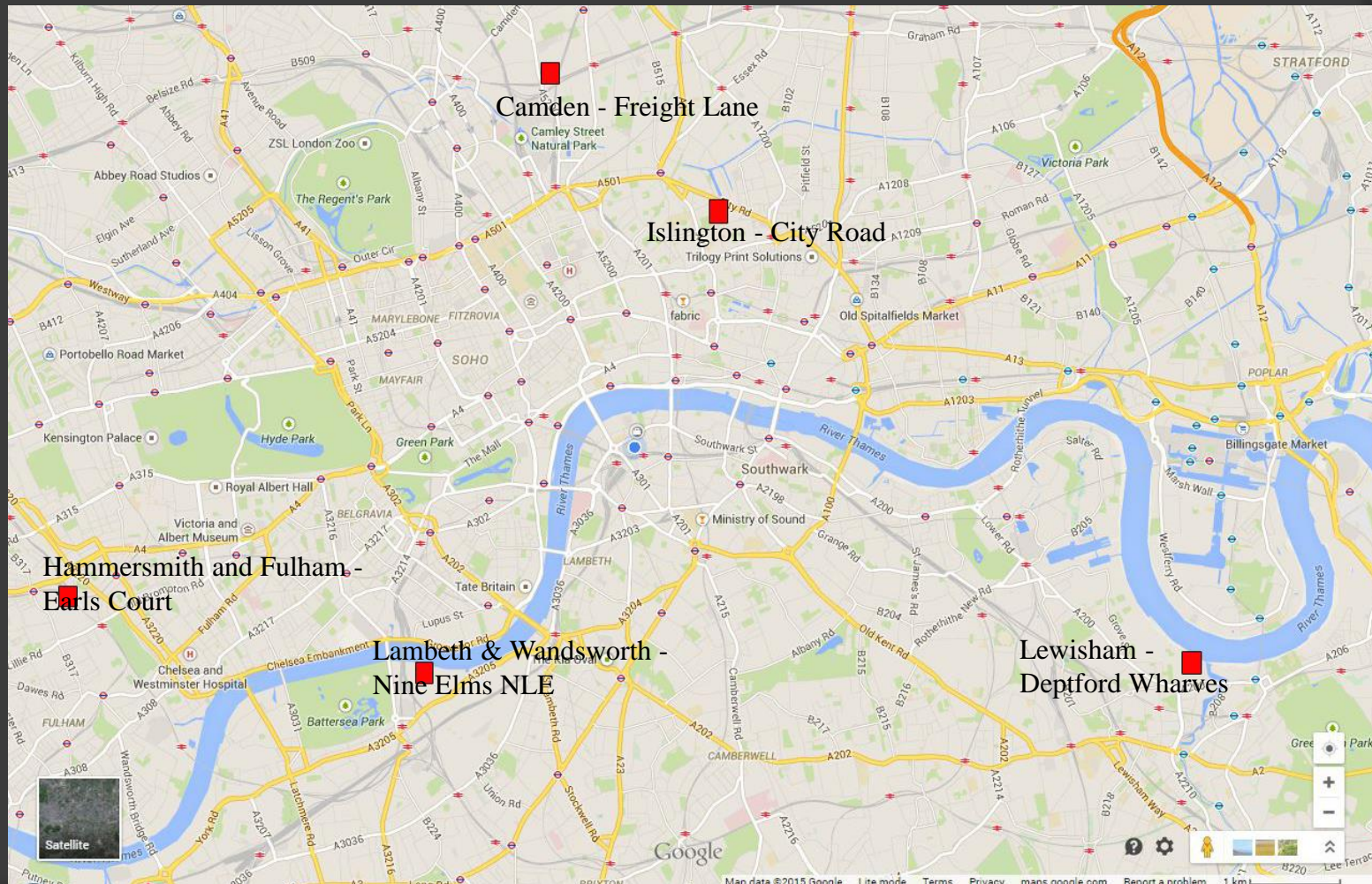
[More information and health advice](#)

### Tweets by @ConstructDustUK

Construction Dust UK @ConstructDustUK  
#London boroughs can access the @LDN\_environment  
#construction #NRMM register for #planning #compliance &  
enforcement... bu#3y1N9XoHJ

Construction Dust UK @ConstructDustUK  
Working together to improve #London's #air via  
@LDN\_environment #pollution #health

# ‘Best in class’ abatement measures.... and creating an evidence base...





# Abatement measures



Dust suppressant



Fuel additive



Green mode / fuel  
additive

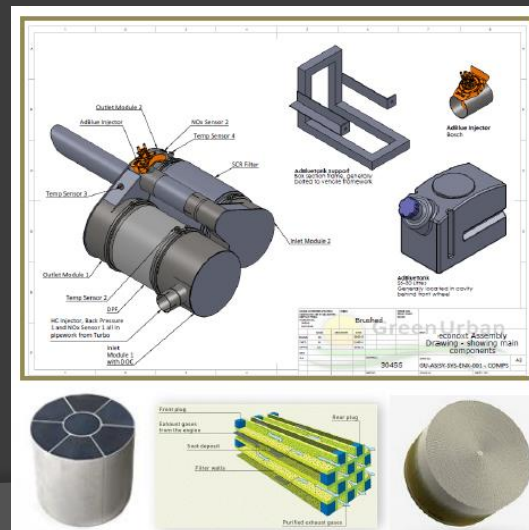
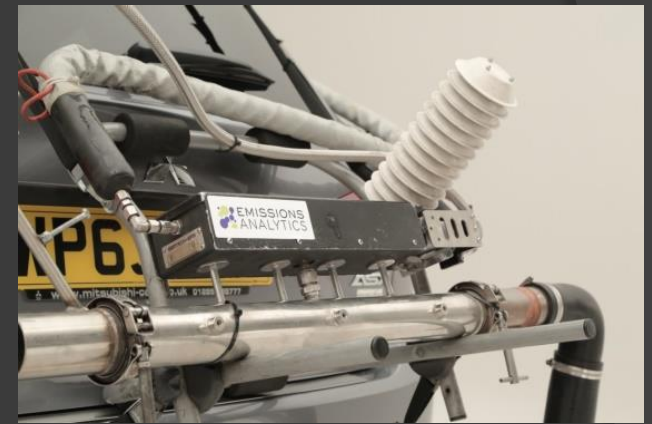


Intelligent power solutions



# Real World Emissions Testing

- ⦿ Generators
  - Fuel types
  - Retrofit DPF SCR
- ⦿ Move to other NRMM types...





**LONDON LOW EMISSION**  
CONSTRUCTION PARTNERSHIP

## Industry Outreach

- Raising awareness of industry impacts on local air quality
- Encourage uptake of 'cleaner' mitigation measures
- Seminars

## Testing

- Measure 'real world' emissions
- Emission reduction trials
- Improve pollution monitoring and quality of data

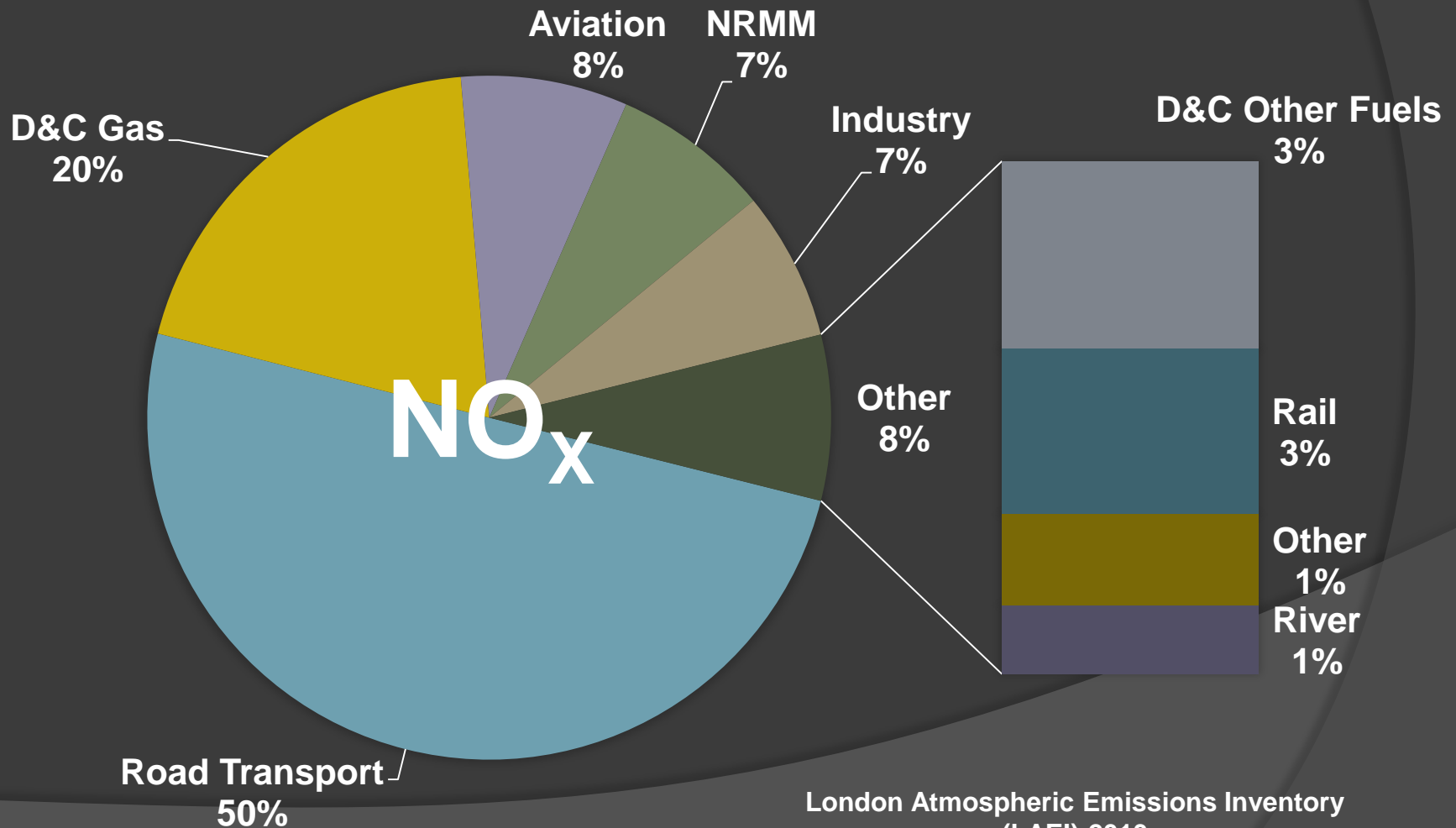
## NRMM

- LEZ enforcement
- NRMM database
- Policy Support

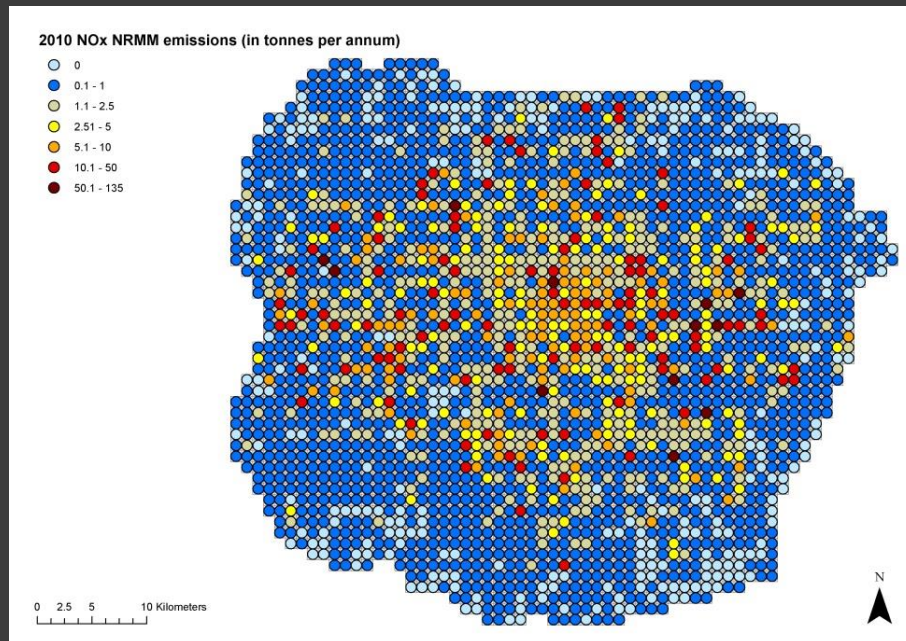
***Phase 1: 2014-16***

***Phase 2: 2016-19***

# NRMM Emissions Inventory

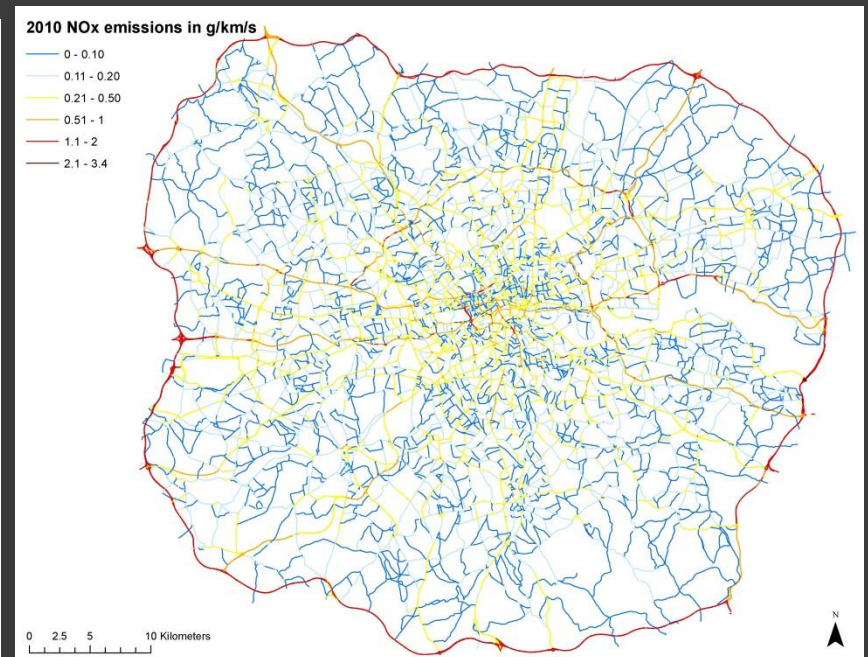


# London Atmospheric Emissions Inventory



NRMM NO<sub>x</sub>  
Top Down

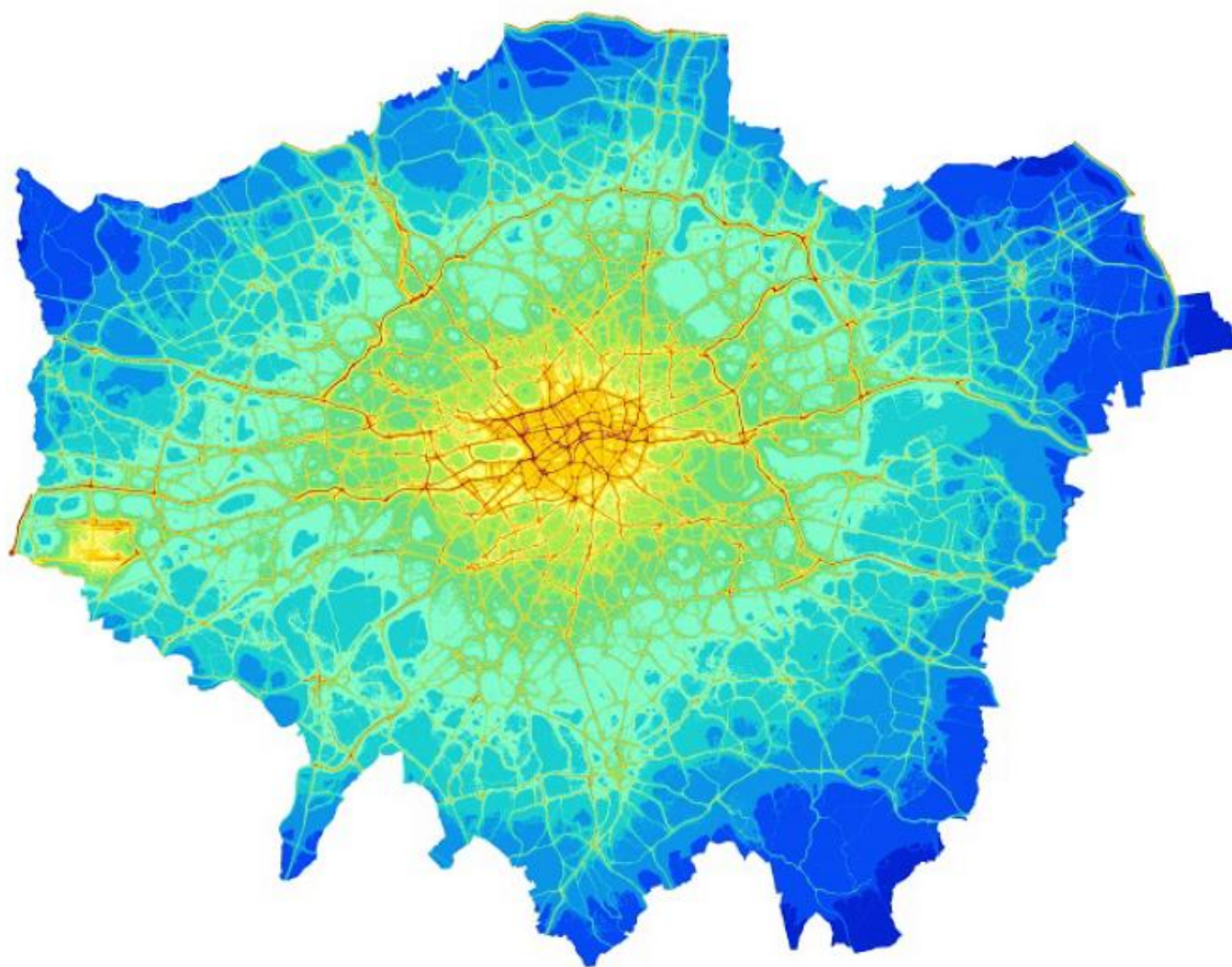
Sector wide metric (fuel use / spend)



Traffic NO<sub>x</sub>  
Bottom Up

Emission Factor x Vehicle Activity



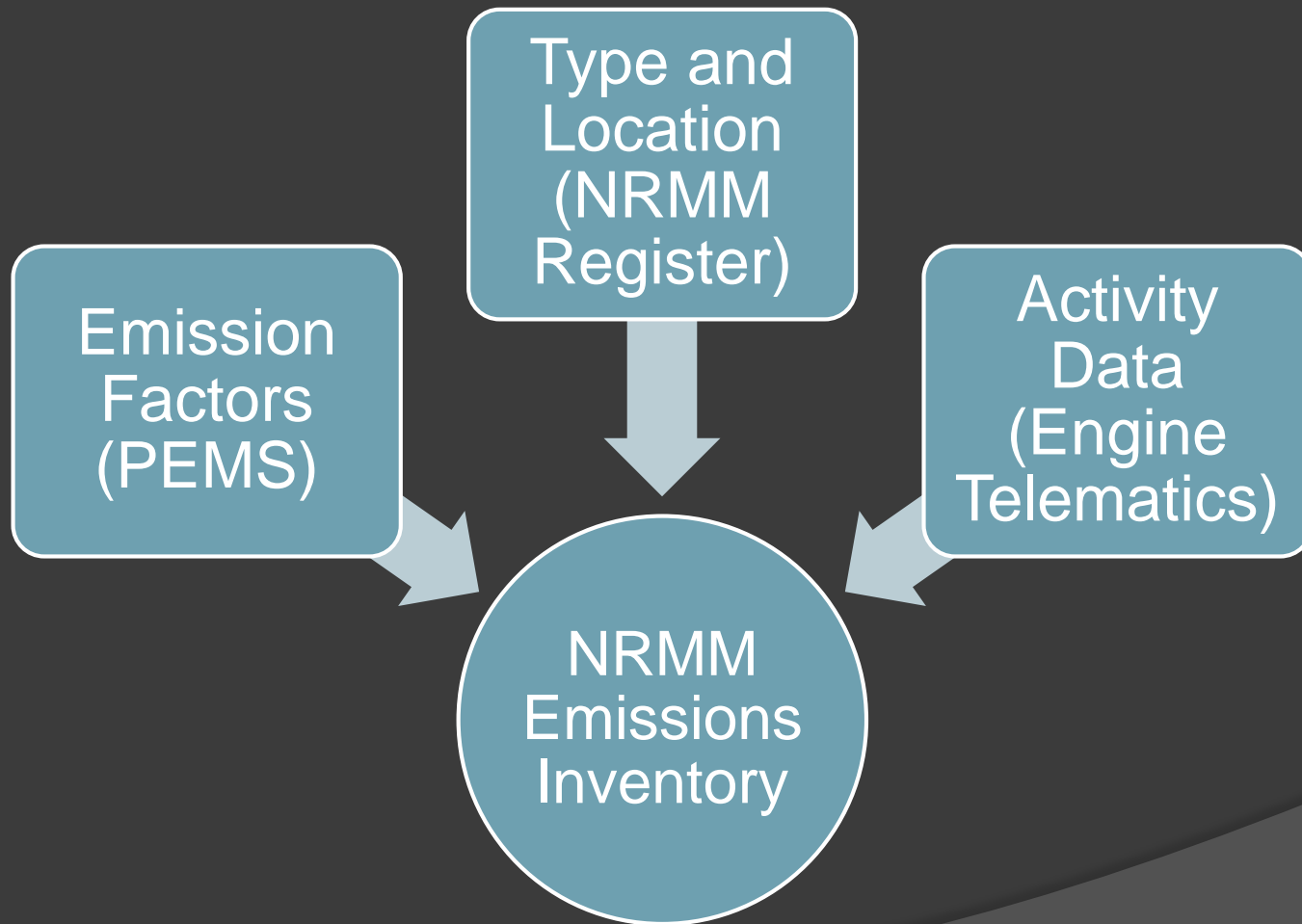


NO2 Annual  
Mean (ug/m3)

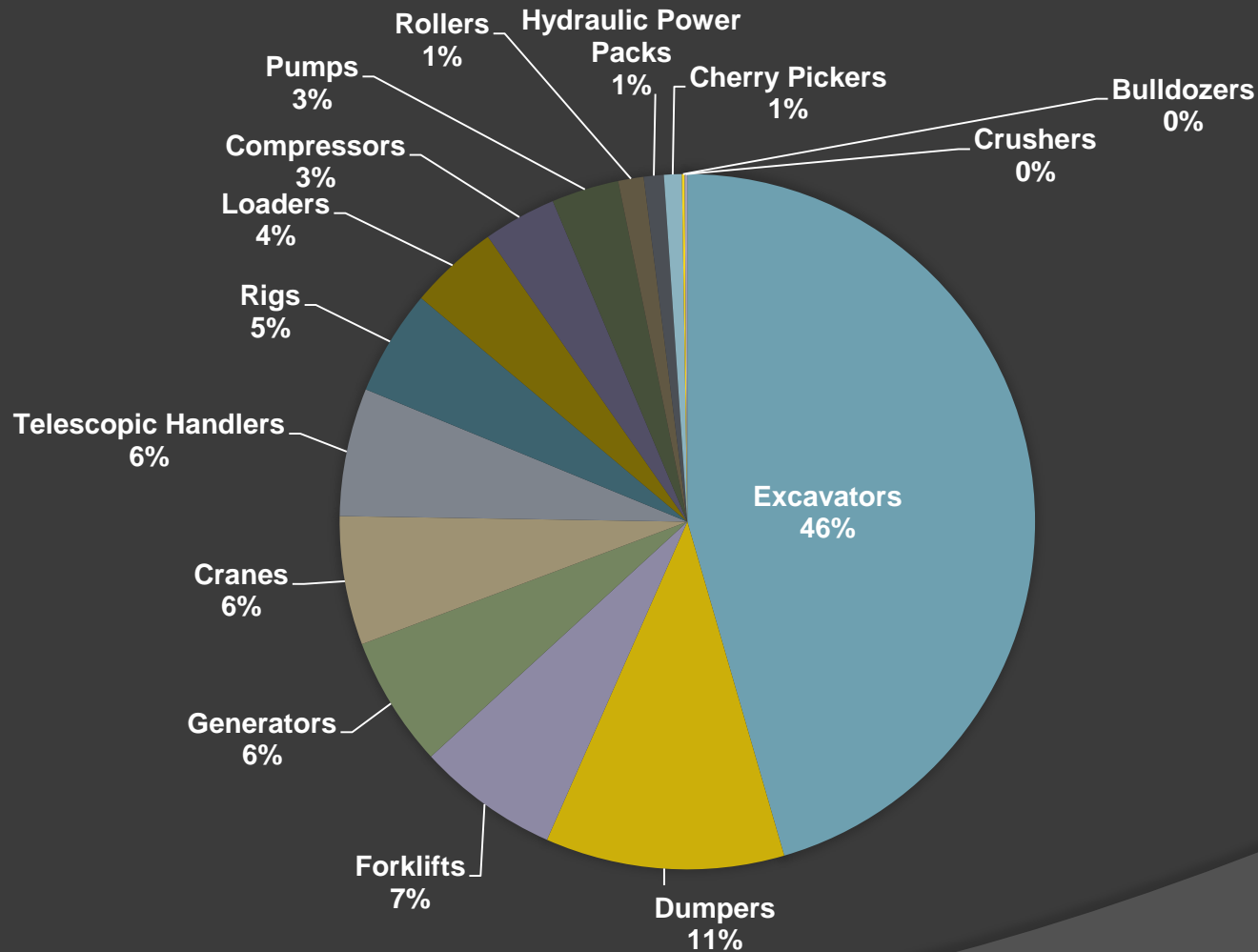
97  
76  
73  
58  
55  
43  
40  
37  
34  
31  
28  
25  
22  
19  
16  
13

*Legal limit*

# NRMM Bottom Up Inventory



# Contribution to NO<sub>x</sub> by NRMM type



SUPPORTED BY  
**MAYOR OF LONDON**



Supported by



THE ROYAL BOROUGH OF  
**KENSINGTON  
AND CHELSEA**







llecp.org.uk

@ConstructionDustUK

[erg-construction@kcl.ac.uk](mailto:erg-construction@kcl.ac.uk)