

# **Air Pollution Roundtable**

***What more needs to be done to  
tackle this silent killer?***

Simon Birkett, Founder and Director  
Clean Air in London

[cleanairinlondon.org](http://cleanairinlondon.org)

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# Summary

Policy makers and decision makers have failed to act and are still being far too timid. Many people want bold action now. Big political opportunity for someone

- How bad is air pollution?
- Latest evidence on health effects
- Effectiveness of Mayor Johnson's policy interventions
- Recent developments
- Opportunity. What needs to be done?

Warn people with advice on protecting and reducing

# 'The London Matrix': Clean air urgently and sustainably in all large cities

	Air quality	Climate change
London (or any city)	2014	
Rest of world		

# Introduction to air pollution

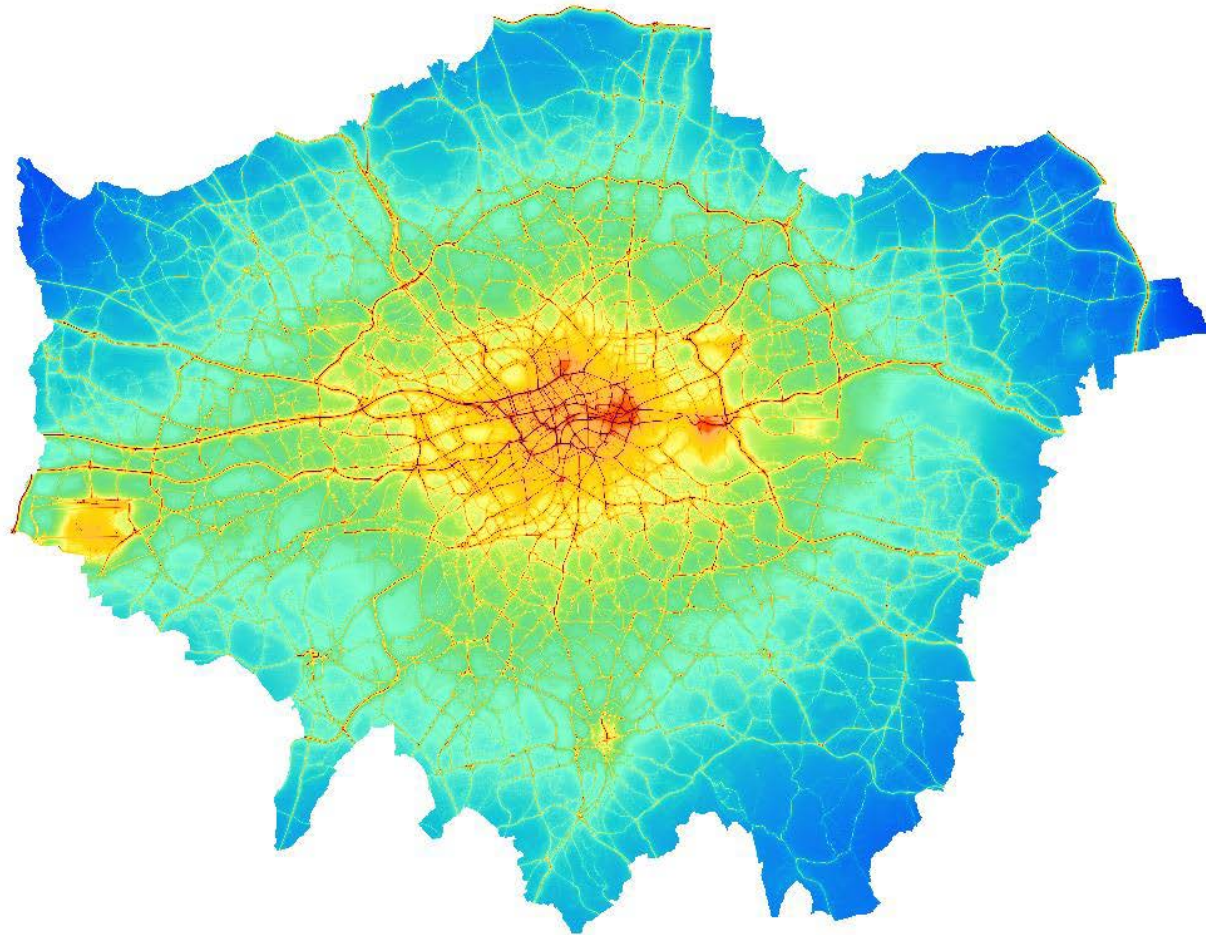
- Health impacts dwarf those known during Great Smog in 1952
- Over three times legal limits and World Health Organisation guidelines near our busiest streets
- Laws in place since 1999 for 2010/2011. Limits not guidelines
- Particles: PM<sub>2.5</sub> and PM<sub>10</sub>. Combustion gases: nitrogen dioxide (NO<sub>2</sub>)
- Health impacts from long and short-term exposure and different types of air pollution. Only smoking causes more early deaths
- Living or going to school within 150 metres of roads carrying over 10,000 vehicles per day could be responsible for 15-30% of all new cases of asthma in children and COPD in adults aged 65 and older
- Diesel causes 91% PM<sub>2.5</sub> and 95% NO<sub>2</sub> of vehicle exhaust in London

# How bad is air pollution?

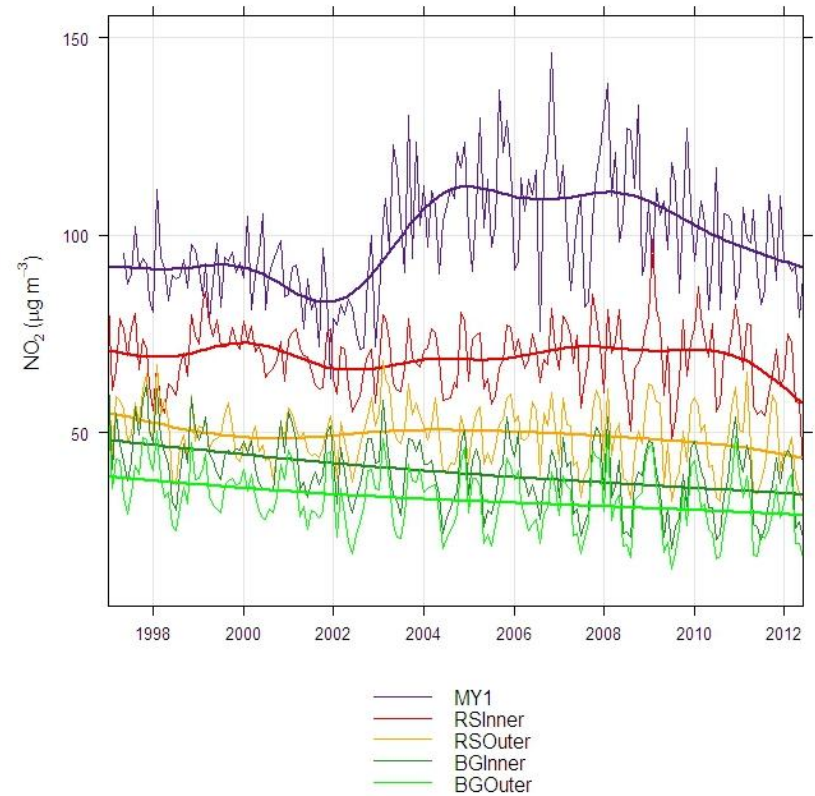
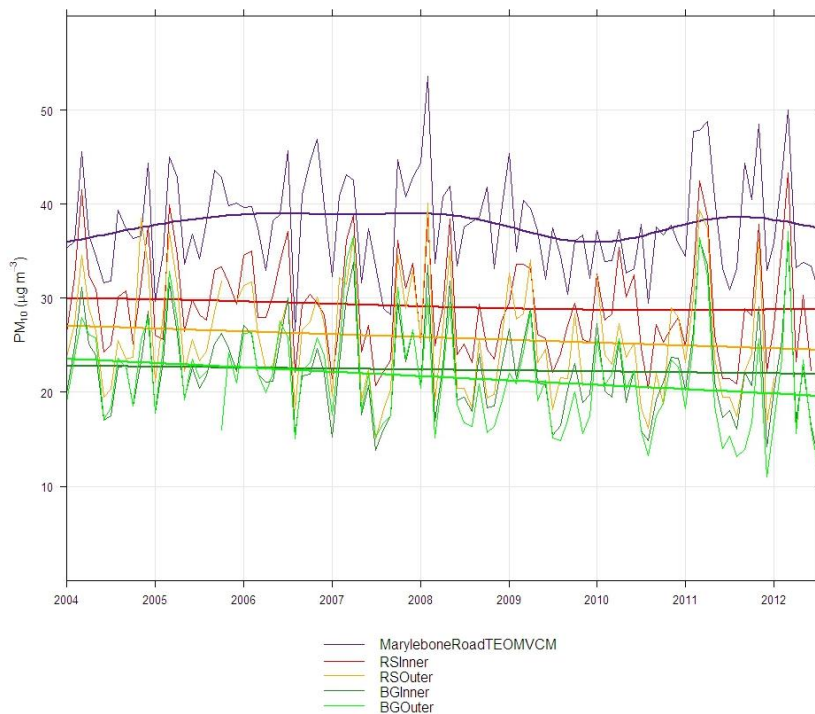
- World's highest monitored NO<sub>2</sub> in Oxford Street and elsewhere
- Trends. Little or no change in urban roadside air pollution for 15 years
- Serious problems across London. Many hotspots
- 25 km of roads will still exceed NO<sub>2</sub> limit value(s) in 2030. This is five years later than expected recently
- PM<sub>2.5</sub> 55% above WHO guideline. Up to 8.9% deaths

# Annual mean NO<sub>2</sub> in London in 2010

*Yellow or red exceeded the legal limit*



# Long-term trends measured by the London Air Quality Network



# How bad is air pollution?





# How bad is air pollution?



# Latest evidence on health effects

- ‘State of the art’ assessment by WHO titled ‘REVIHAAP’
- WHO has declared diesel exhaust, outdoor air pollution and particulate matter carcinogenic. Much action since then. ‘Human right’ in 2015? Needs to be included in WHO’s NCD model
- Ground breaking ‘meta analysis’ concluded:  
*“There is evidence of a long-term effect of NO<sub>2</sub> on mortality as great as that of PM<sub>2.5</sub>. An independent effect of NO<sub>2</sub> emerged from multipollutant models.”*
- European Commission’s Clean Air Policy Package impact assessment excluded NO<sub>2</sub>! Perhaps 60% non-overlap with PM<sub>2.5</sub>
- King’s College London study on lung effects. Conference...
- It’s about mortality (death) and morbidity (illness) and acute (short-term) and chronic (long-term) effects
- Clean Air in London investigation found air pollution is one of the ‘exposures ‘causing the top five death outcomes in London

# Latest evidence on health effects



# Effectiveness of Boris' policy interventions

'Love affair with diesel' (and local generation)

- Encouraged the use of diesel cars. WEZ. CCZ
- Regulates both the main traffic sources in Oxford Street!
- New bus for London. Stuck with diesel hybrid for 14+ years
- Refusal to remove taxi turning circle requirement. Nissan petrol taxi delayed? We cannot wait until 2018
- Climate and air policies not 'joined-up'. Biomass. Diesel generation
- Increasing use of biomass, CHP and standby diesel generation
- Rumours of action targeted at monitors e.g. Marylebone Road

Backward steps and weakest options selected. Problems building. 'Promises' being made for others in 2018 and 2020. Many cities bolder

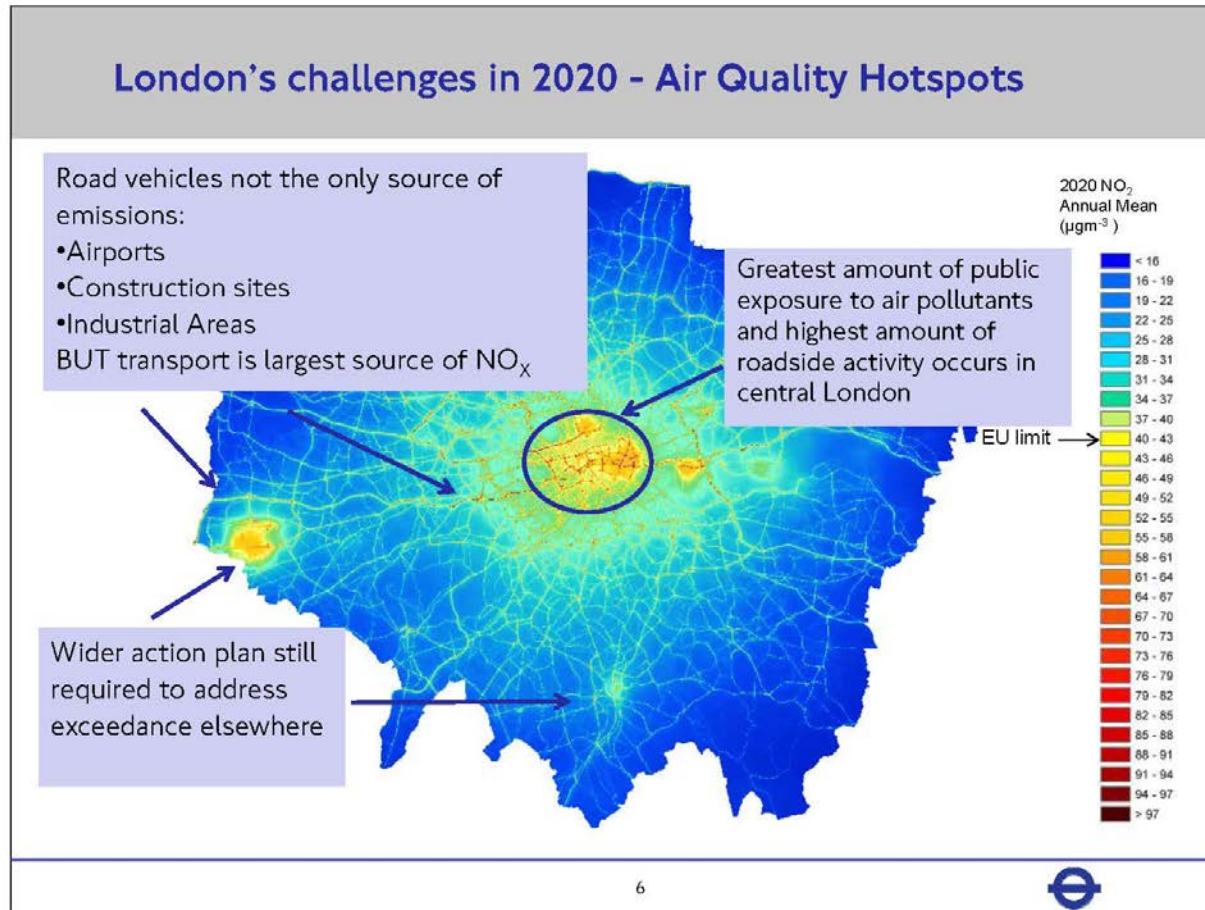


**Pollution Suppressors were used beside key London monitors in 2012.  
They reduced particulate matter concentrations by more than 30%**

You Tube: <http://youtu.be/WUkvGkDOyYA>

# Annual mean NO<sub>2</sub> in London in 2020

## *Yellow or red will still exceed the legal limit*

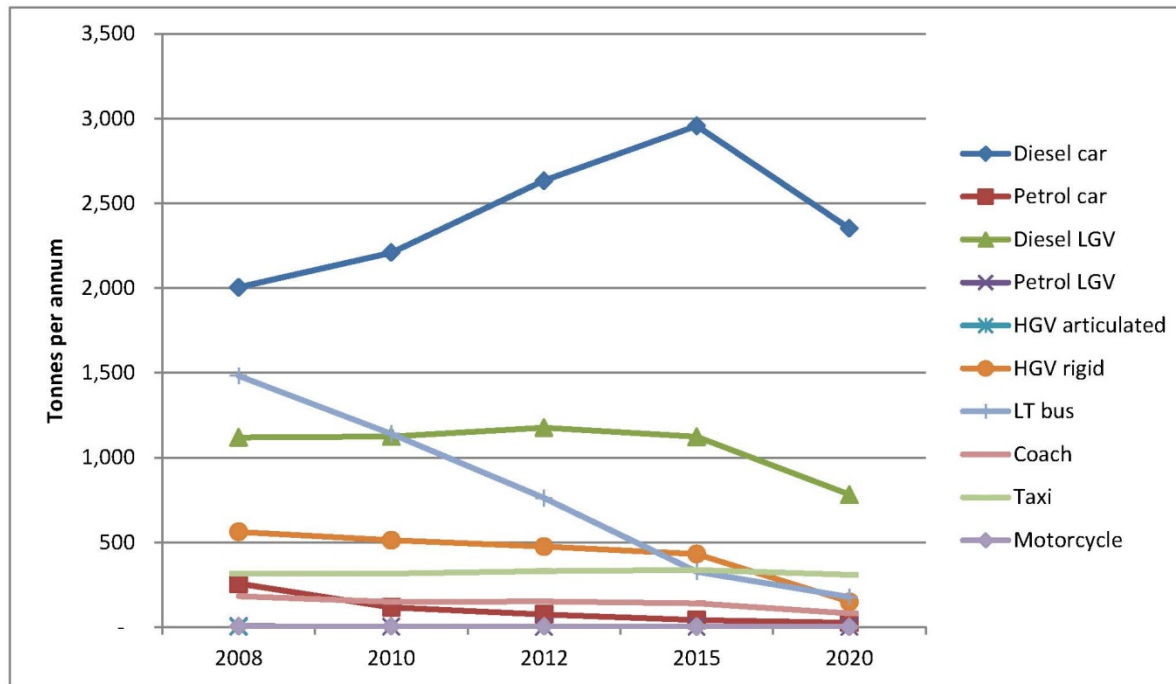


# Effectiveness of Boris' policy interventions

CLEAN AIR IN LONDON

Computer modelled transport exhaust emissions:  
Nitrogen dioxide (NO<sub>2</sub>) - All London Zones

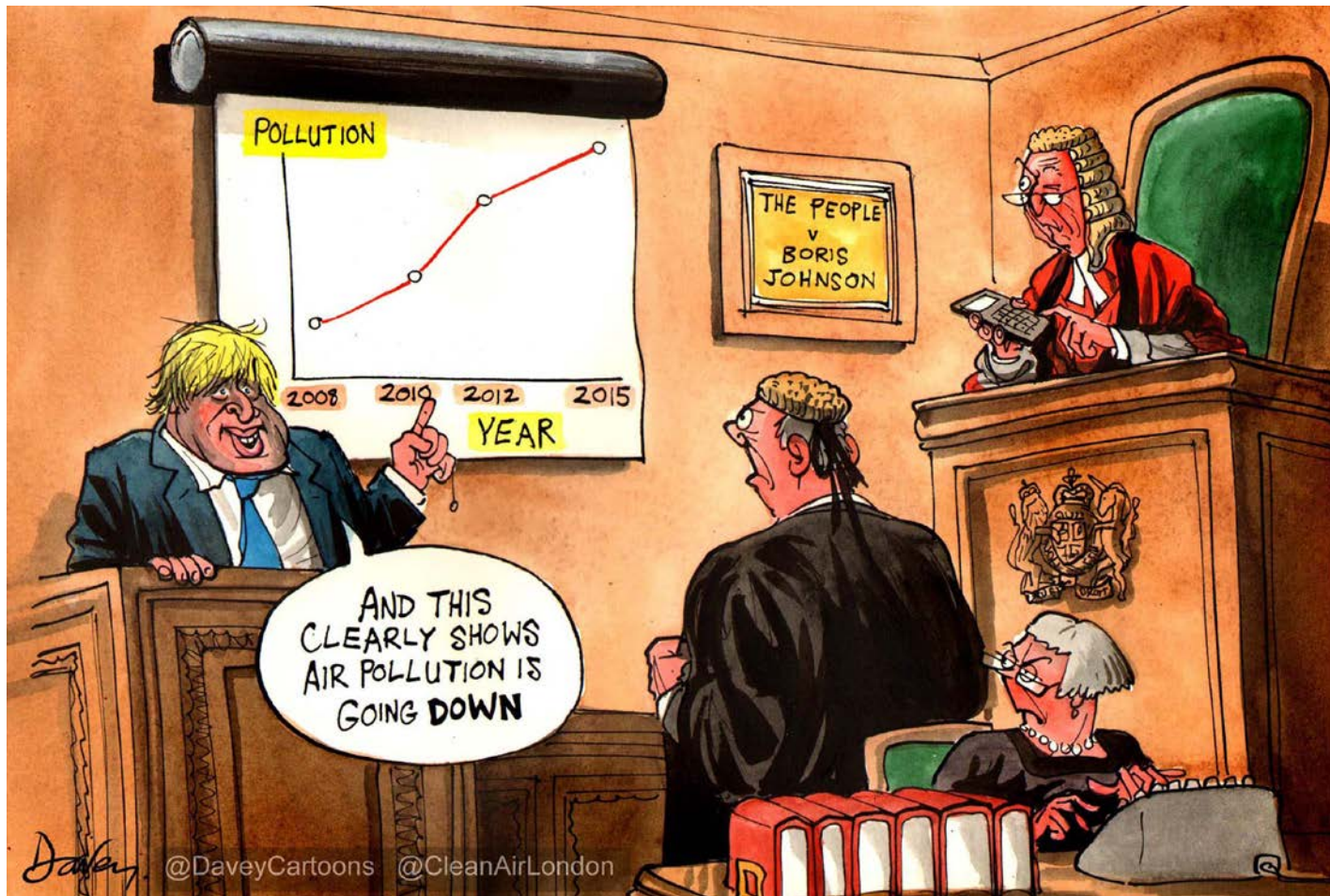
Draft 010314. Errors and omissions excepted



<http://data.london.gov.uk/datastore/package/london-atmospheric-emissions-inventory-2010>

11:59 01/03/2014

# Effectiveness of Boris' policy interventions





# **Recent developments – ULEZ**

## ***Ban all diesel from most-polluted places by 2020***

### **London Assembly motion, 16 July 2014**

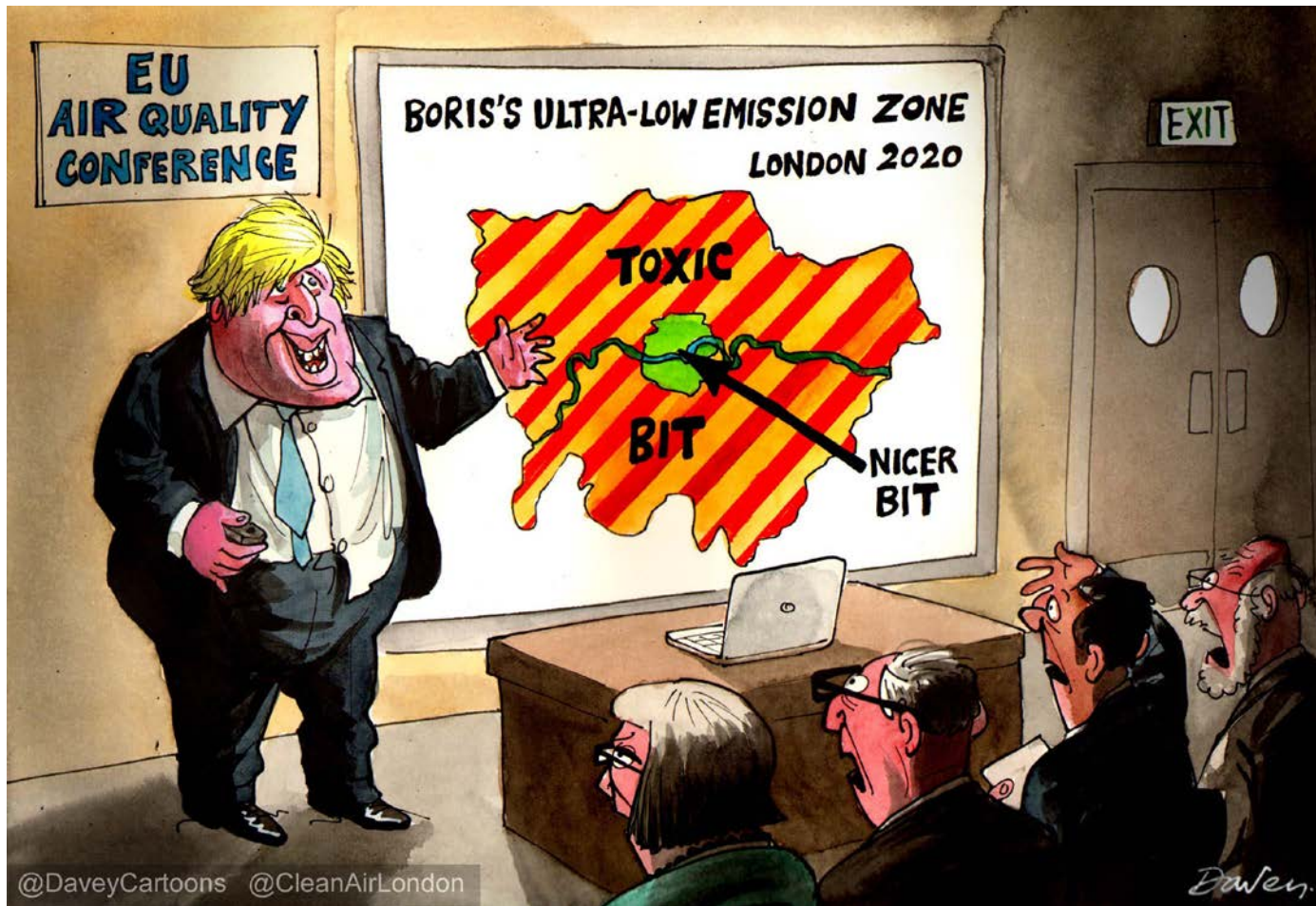
“This Assembly notes that the Mayor of London’s proposal for an Ultra Low Emission Zone (ULEZ) is currently envisaged within the boundaries of the central London Congestion Charge Zone. This Assembly also understands that other boroughs may wish to join the proposed zone where they have particular air quality concerns. The Assembly therefore recommends that other boroughs be offered the opportunity to opt-in to a larger, contiguous zone as part of the Mayor’s consultation on the 2020 scheme”

### **Westminster Amenity Societies Forum**

“We support including the whole of the City of Westminster in the Mayor of London's Ultra Low Emission Zone to ban the oldest diesel vehicles of all sorts, including cars, from 1 January 2020 and also support a more ambitious scheme to include additional and meaningful reductions in regulated air pollutants, operational by May 2018”

**Mayor’s ULEZ is too small, too weak and too late**

# Recent developments - ULEZ



# Recent developments – Clean Air Act

- Update for modern fuels and technologies
- Outlaw the sale of illegal fuels around Smoke Control Areas e.g. wood at garages
- Simplify enforcement e.g. fixed penalties
- Include bonfires, canal boats etc.
- Clear duties on local authorities and others
- Supported by public understanding campaign

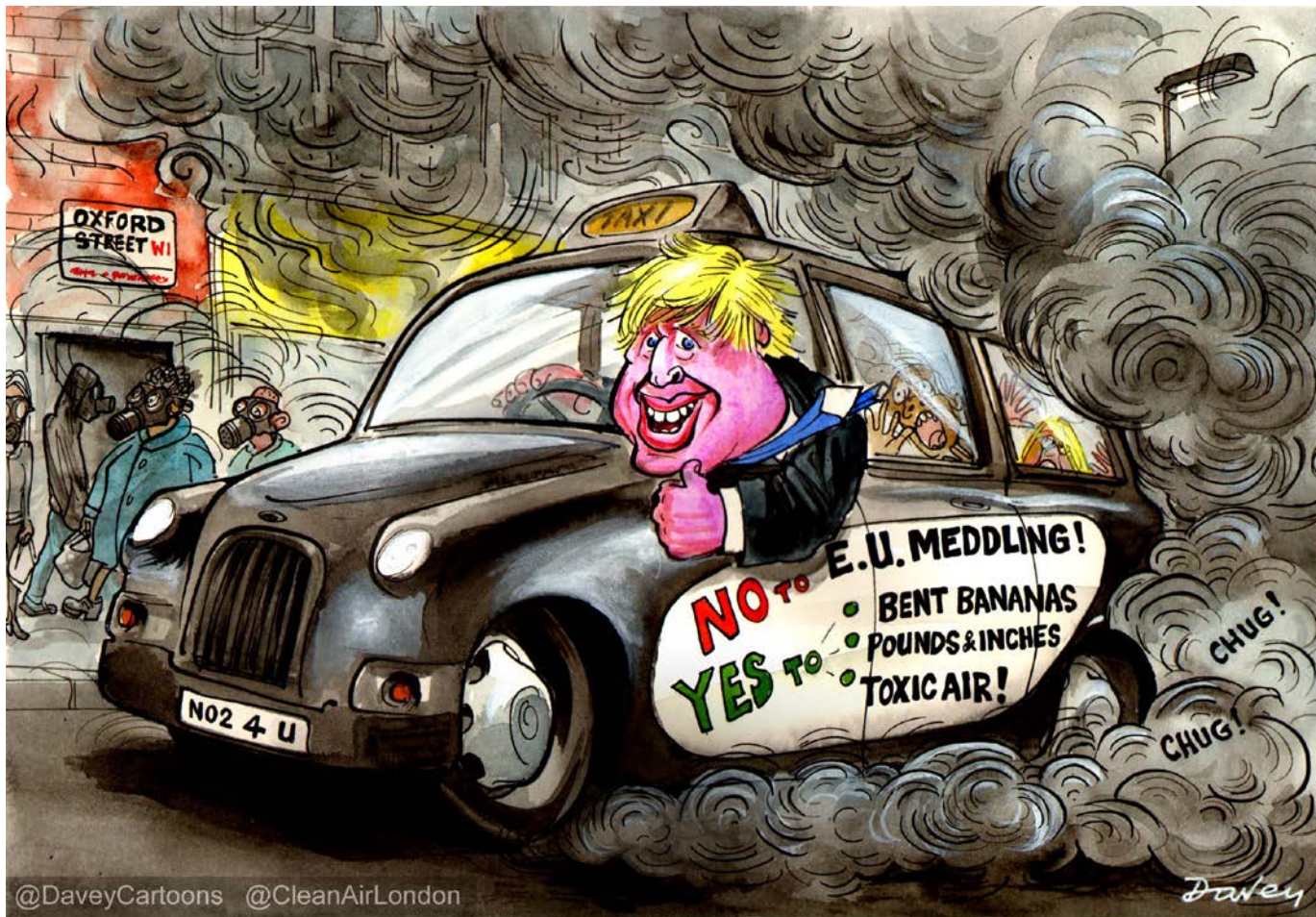
# Recent developments – Clean Air Act



# Recent developments – Legal action

- ClientEarth case in the European Court
- UK singled out for infraction action on NO<sub>2</sub>
- European Commission's Clean Air Policy Package
  - Full compliance with existing laws by 2020
  - National Emissions Ceilings Directive with targets in 2025 and limits in 2030
- Development may be constrained, including major infrastructure projects, unless diesel is banned

# Recent developments – Legal action



# Recent developments – Other issues

- Public Health England plan by March 2015
- Tube dust is not 'safe'
- Indoor air quality. Comply with EN 13779
- Waste to energy. Waste management
- Smog warnings. Breathe Better Together?

# Recent developments – Other issues



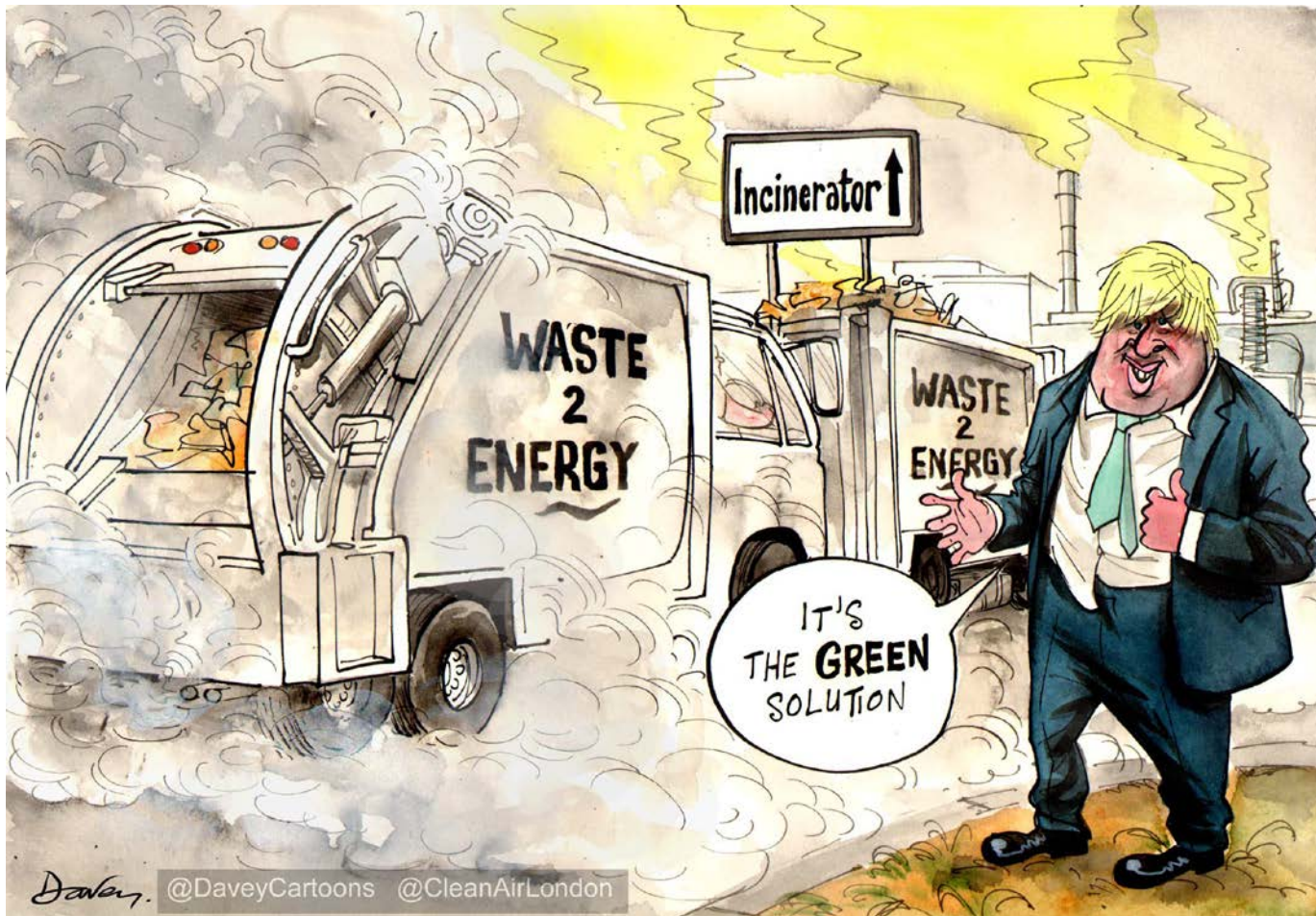


# Recent developments – Other issues



@DaveyCartoons @CleanAirLondon

# Recent developments – Other issues



# Opportunity. What needs to be done?

## Overview

- Ban diesel and biomass as coal was banned
- Ultra low emission zones. Bigger. Stronger. Two stages to 2020. Include buses and taxis. Tighten wider zone also
- Taxis and buses. Scrap and retrofit. Long-term solutions
- Clean up local generation e.g. no biomass, CHP, diesel
- Traffic management. Real world emissions tests. NRMM
- Tyre and brake wear. Petrol. DPF removal. Restaurants
- Public health e.g. plan by March 2015
- Need plans to comply with  $\text{NO}_2$  and  $\text{PM}_{2.5}$  laws.  $\text{PM}_{10}$  too

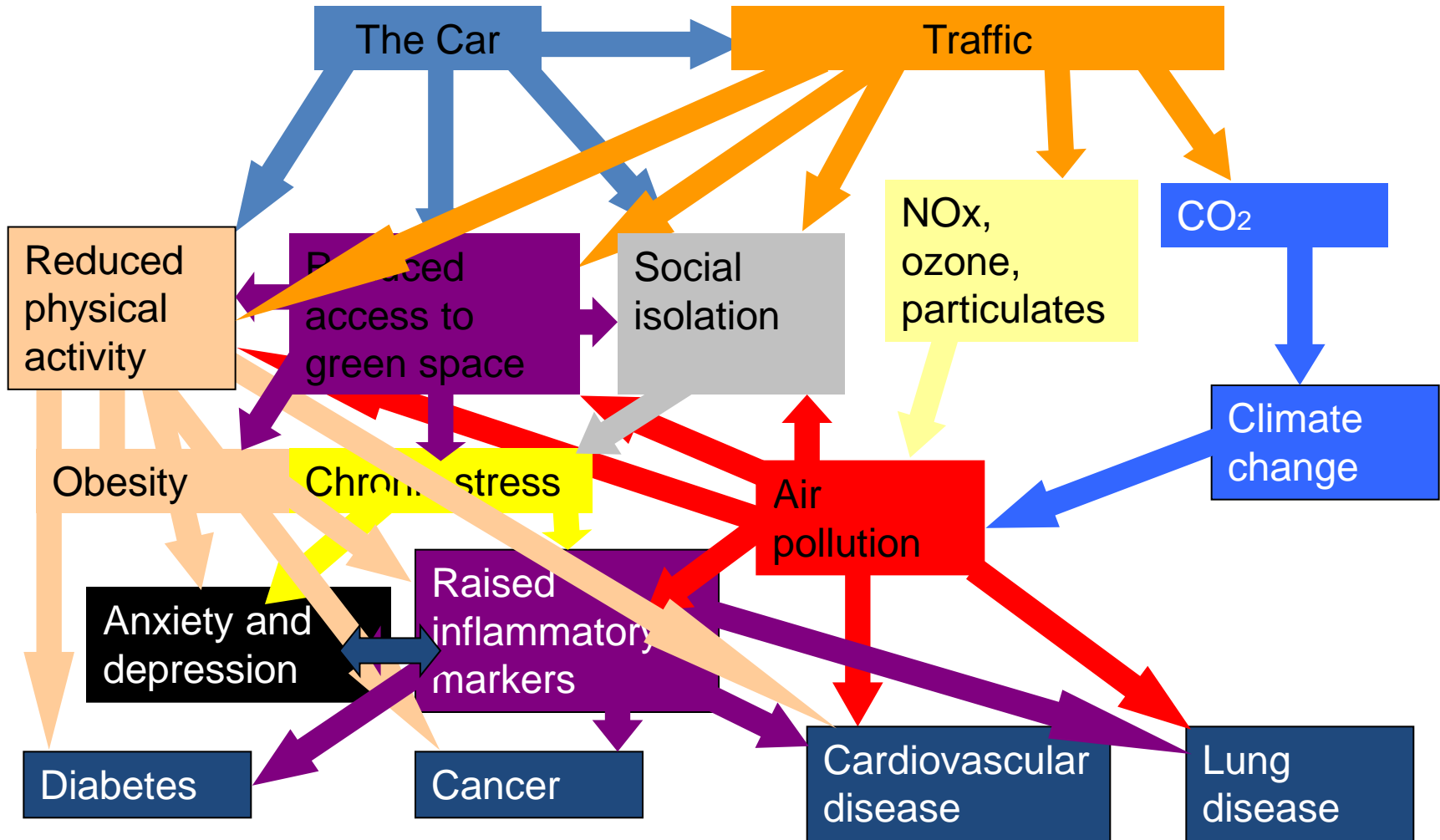
# Opportunity. What needs to be done?

## Taxis

- Drivers forced still to buy one of two diesels
- Must ensure taxis are financially competitive with minicabs or have worthwhile protections
- Scrap turning circle requirement
- More ranks and rapid charging
- Financial mechanisms that aren't 'State Aid'
- Include in ULEZ standards

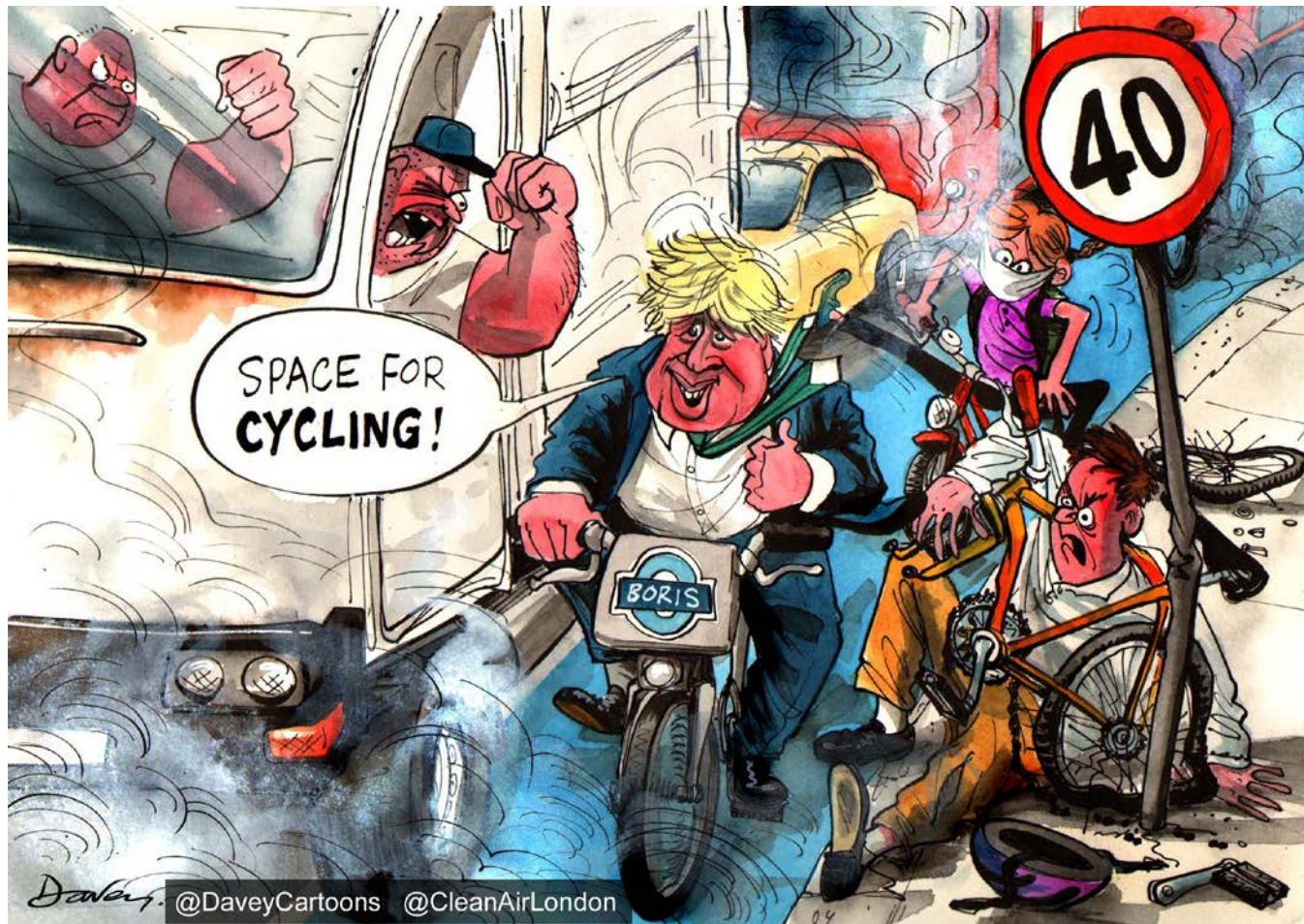
Action is needed now or this iconic service will be lost

# Air pollution among other public health risks



From a presentation by Dr William Bird of Natural England

# Opportunity. What needs to be done?



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# Clean Air Championships 2014





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