

Clean Air as Environmental Justice

Presentation to 'Active and Sustainable Travel in the 21st Century' Seminar

22nd March 2017

Emilia Hanna

Air Pollution Campaigner for Friends of the Earth Scotland

ehanna@foe-Scotland.org.uk

@emiliajaneagain



European Ambient Air Quality Directive Directive 2008/50/EC

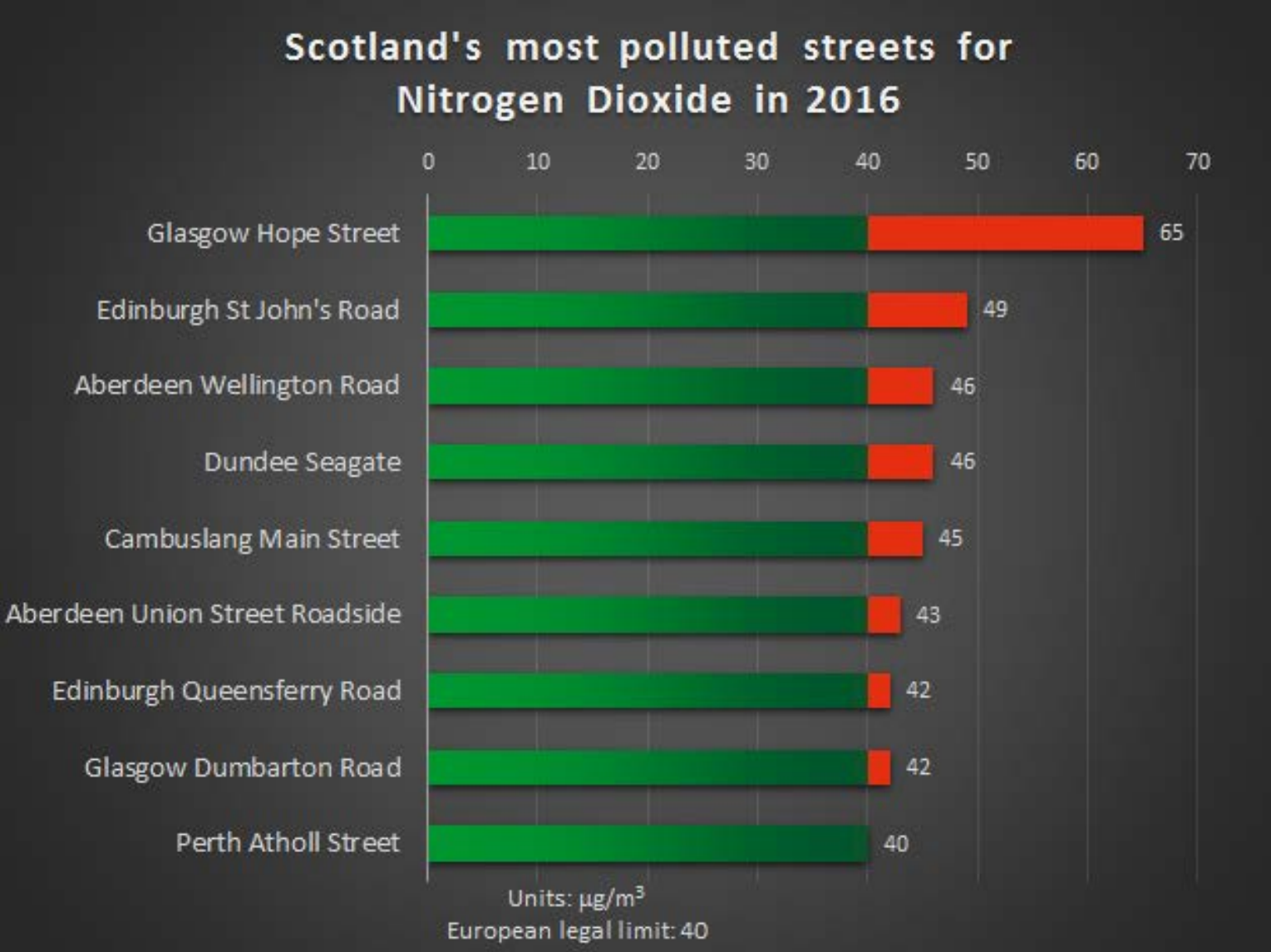
Article 13: “In respect of nitrogen dioxide..., the limit values specified in Annex XI may not be exceeded from the dates specified therein”

Extract from Annex XI:

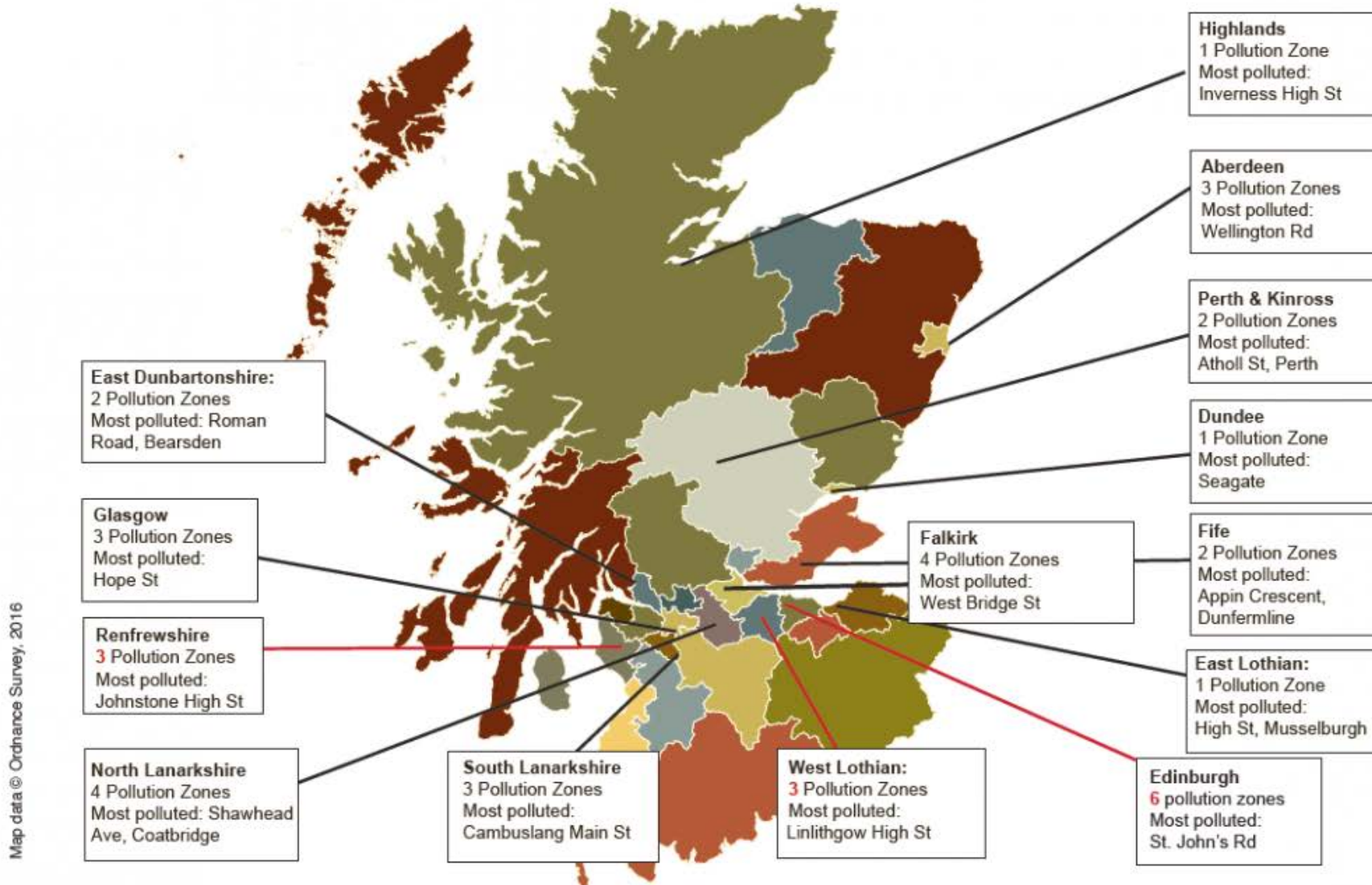
Nitrogen Dioxide

Averaging Period	Limit value	Date by which limit value is to be met
Calendar Year	40 µg/m ³	1 January 2010

Friends of the Earth Scotland analysis of Scottish Government's Air Quality Data supplied by monitors



Scotland's Air Pollution Zones



Air Pollution – Health Impacts



“Air pollution plays a role in many of the major health challenges of our day, and has been linked to:

cancer,

asthma,

stroke and heart disease,

diabetes,

obesity, and

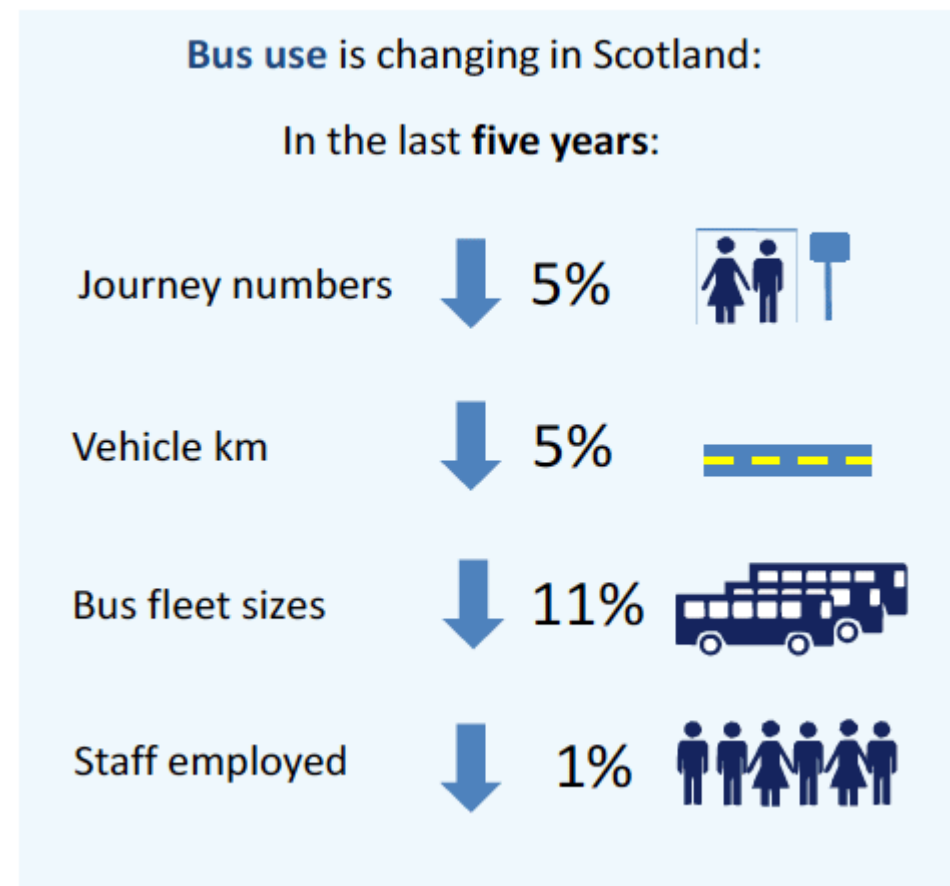
changes linked to dementia.”

Cars clog up our ability to move



Buses are impacted by congestion

“Traffic Congestion is a disease which left unchecked will destroy the bus sector.” – Greener Journeys, “The Impact of Congestion on Bus Passengers”



Walking and Cycling rates are impacted by the dominance of the car

Table 26: [Cycling] Reasons why do not cycle to work, 2009-2015 ¹

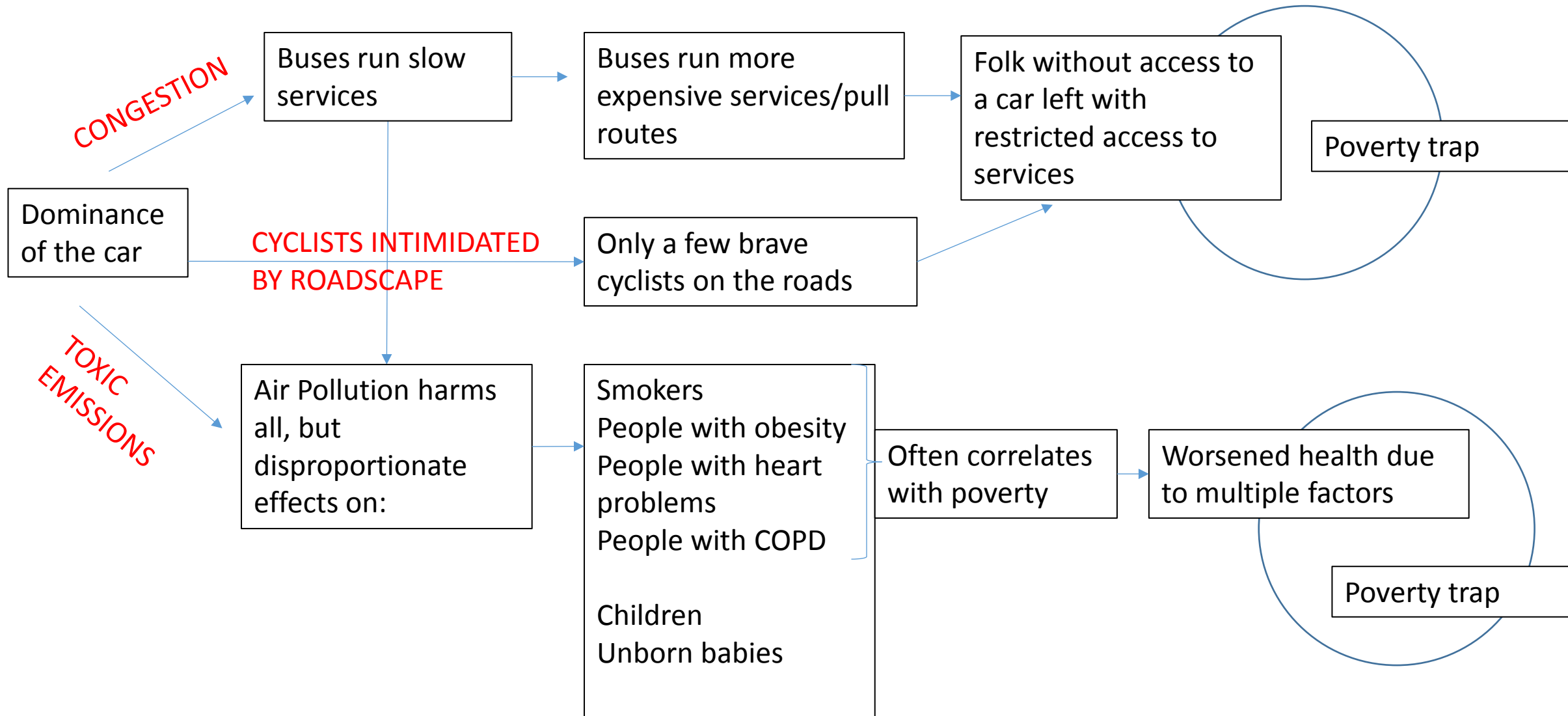
	2009	2010	2011	2012	2013	2014
Reasons why do not cycle to work						
Too far to cycle	35.6	38.9	34.9	34.3	37.4	33.3
Weather too cold / wet / windy	17.6	18.2	19.3	21.0	19.8	16.2
Do not have a bike	13.8	13.9	12.2	16.4	14.3	11.9
Too many cars on the road	15.7	12.8	11.9	14.8	14.7	18.2
Traffic travels too fast	13.2	11.5	10.1	12.4	11.6	12.4
Prefer to drive	10.2	11.4	9.1	10.6	10.0	9.1
Inconsiderate drivers	10.0	8.5	8.0	9.9	8.9	9.1
Concerns for personal safety on dark / lonely roads	9.9	9.1	9.6	9.1	9.0	6.7
No way to carry luggage / shopping	9.4	10.3	7.9	8.3	7.9	5.9
Nowhere at work to shower / change	7.7	7.8	7.6	7.5	7.3	5.5
Don't have time to cycle	7.9	7.9	7.0	9.2	8.3	9.2

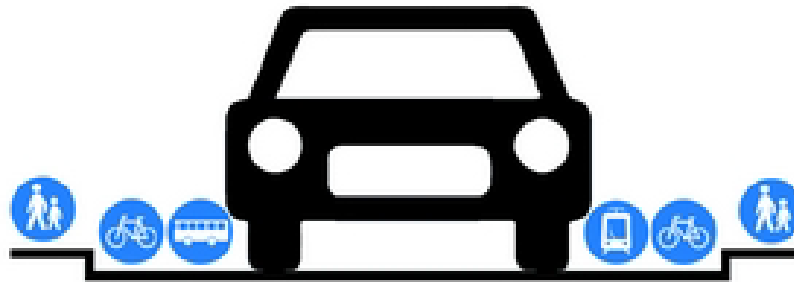


Too hilly	5.8	5.9	7.2	7.6	6.2	4.4
Not fit enough	5.7	6.6	6.0	5.8	4.9	5.6
Can't be bothered	6.4	6.3	6.4	6.8	5.9	5.3
Road surfaces are dangerous	3.9	5.1	6.1	4.9	5.6	4.2
Not enough safe places to lock bike	2.5	2.7	2.7	2.2	4.1	1.7
Can't ride a bike	2.4	1.7	1.8	2.1	2.4	2.1
Health reasons	2.3	1.9	1.4	2.3	1.9	2.5
Difficult taking bike onto other forms of transport ²	1.7	2.0	1.6
Inconsiderate pedestrians in towns\cities	1.0	0.6	0.6	0.5	0.7	0.7
Worried about pollution from traffic	1.6	1.6	1.1	1.5	1.3	1.5
Nowhere to keep a bicycle at home	0.6	0.9	0.6	0.3	0.8	0.5
Too many bikes stolen	0.9	0.5	0.5	0.4	0.7	1.3
Sample size (=100%)	2,770	2,350	2,580	1,610	1,540	1,590



The vicious “flow” of car dominance on equalities





How most traffic engineers see your city



How cities should be designed

Cracking down on cars (1)

Nottingham's workplace parking levy

£25mn/year reinvested into city's public transport network inc railway upgrade



Cracking down on cars (2)

London's congestion charge

- By 2006, the congestion charging zone had **reduced congestion in central London by 26 %** from its 2002 levels.
- **37 % increase** in the number of passengers entering the zone by bus during charging hours in the first year.
- The scheme generated **£122 million** net in 2005/2006.
- A new **Toxicity Charge** to be introduced from 23 October 2017 for pre-2006 cars



Cracking down on cars (3) Stroget, Copenhagen



Cycling Revolution: Seville



- 2007 – 2010: 80 km segregated cycling tracks built in the city
- Modal share increase from 0.5% → 7% between 2006 – 2013
- NO₂ in Seville from 52 µg/m³ in 2000 to 25 µg/m³ in 2012
- Success “due to the implementation of a complete pack of traffic demand management measures including cycling”

Cycling Revolution – Edinburgh...?



Bus revolution: Jersey

- Switched to a franchise model in **2013**
- passenger ridership has increased by **32%**
- levels of subsidy have reduced by **£800k** per year
- **five** new routes have been introduced
- **57%** of those who use the bus in peak time have access to a car but choose not to use it.





- Thank you -

References/thanks to:

- **“Ambient air pollution and low birthweight: a European cohort study (ESCAPE)” 15 October 2013**, Pedersen, Marie et al, The Lancet Respiratory Medicine , Volume 1 , Issue 9 , 695 – 704
- **Long term exposure to ambient air pollution and incidence of acute coronary events: prospective cohort study and meta-analysis in 11 European cohorts from the ESCAPE Project**, *BMJ* 2014; 348 doi: <https://doi.org/10.1136/bmj.f7412> (Published 21 January 2014)
- “Every breath we take: the lifelong impact of air pollution” (2016) Royal College of Physicians
- “Cycling and Urban Air Quality – A Study of European Experiences” (2015) ECF
- www.scottishairquality.co.uk
- Greener Journeys, (2016) “The Impact of Congestion on Bus Passengers”
- <http://www.earthlymission.com/how-200-people-look/>
- www.centreforpublicimpact.org
- Copenhagenize