

Transport and Air Quality in London: Recent Initiatives and Some Future Challenges

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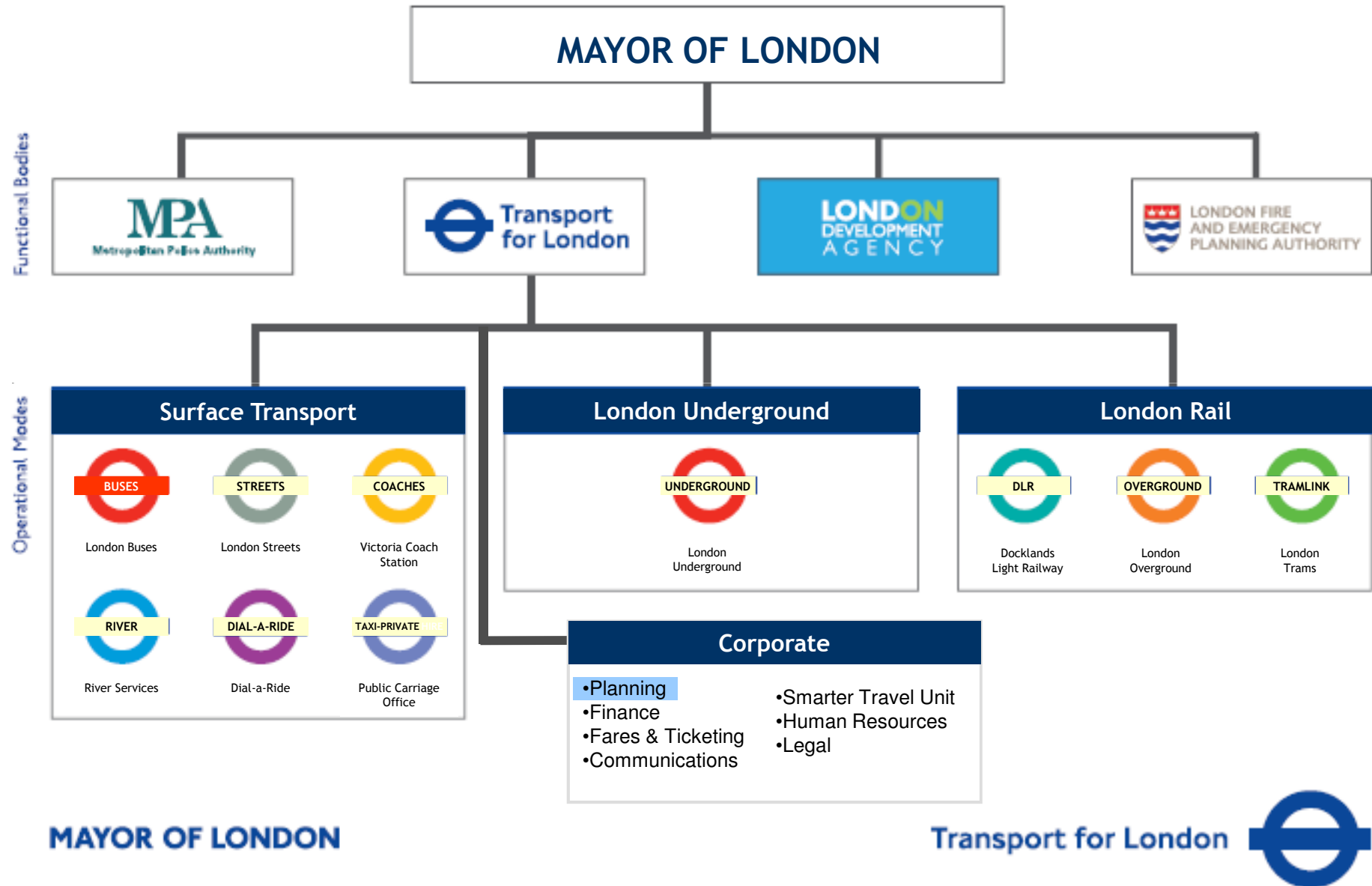
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Congestion Charging

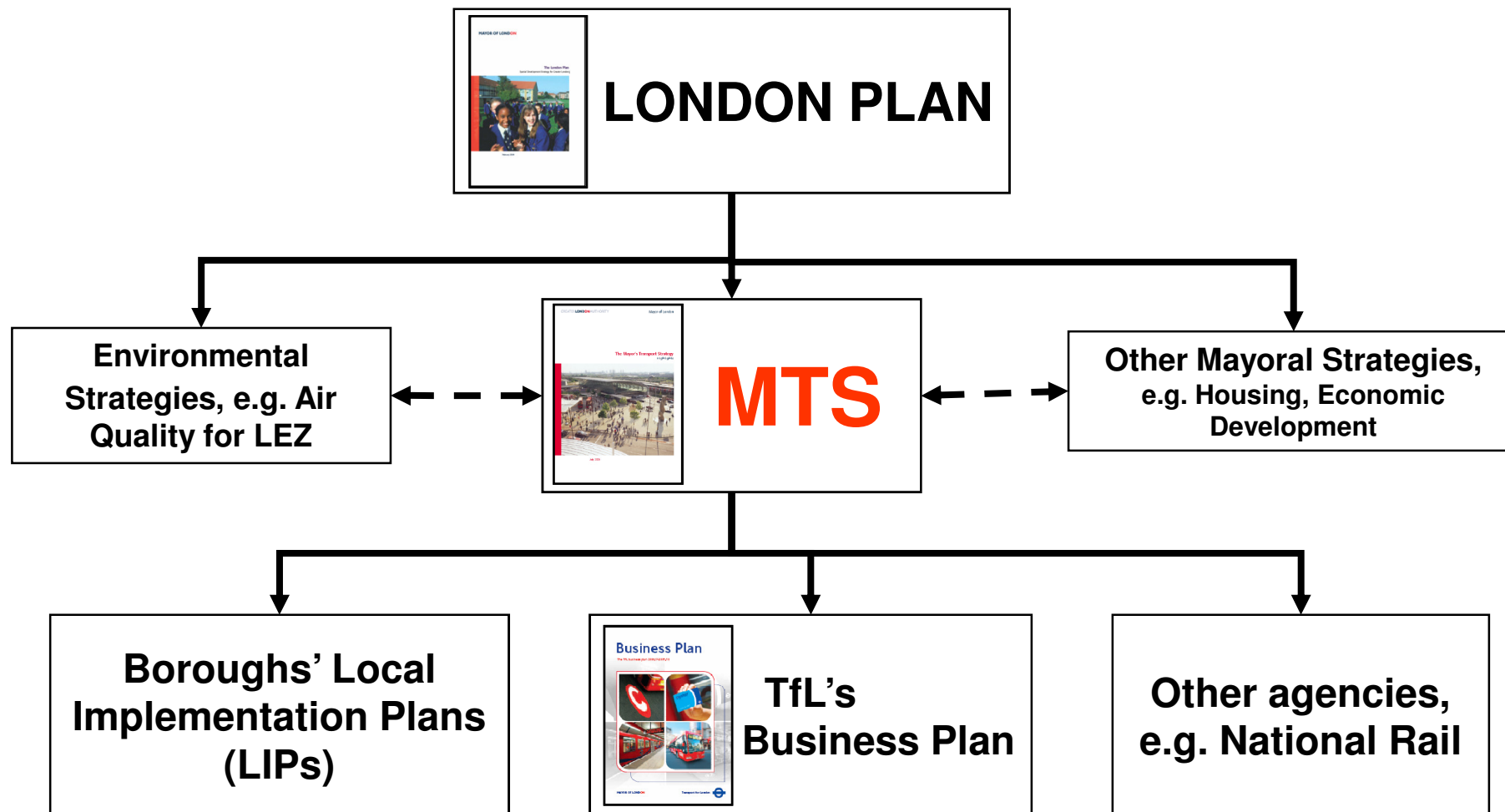
London Low Emission Zone

Some other Future Challenges

Transport for London's Responsibilities



Strategic planning context



- The MTS sets the strategic context for transport in London
- Implementation of the MTS is carried out by the boroughs through their Local Implementation Plans and by TfL through the Business Plan as well as other agencies, e.g. National Rail

Period of transition in London Government



Former Mayor Ken
Livingstone (2000 – 2008)



New Mayor Boris
Johnson (3 May 2008 -)



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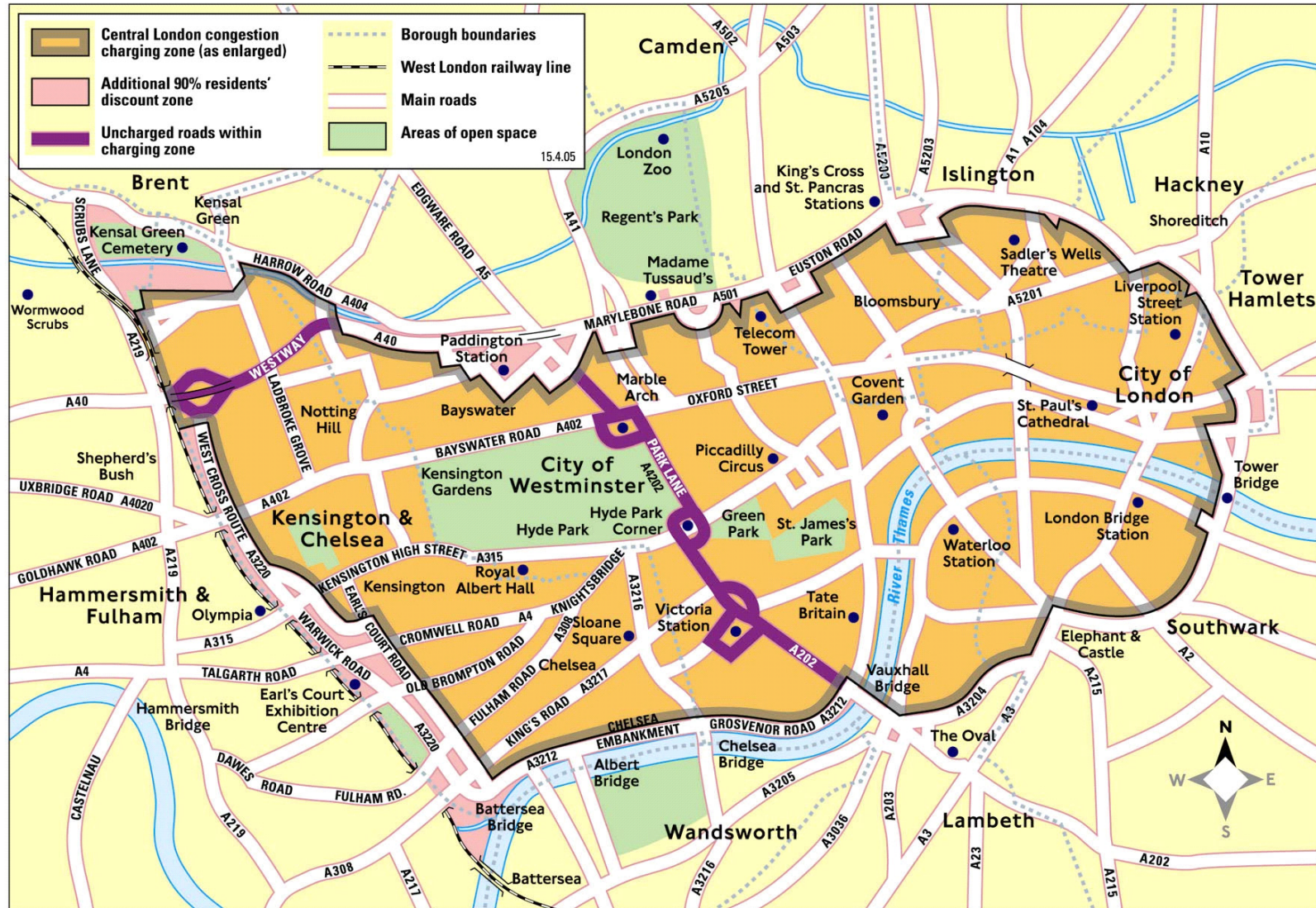
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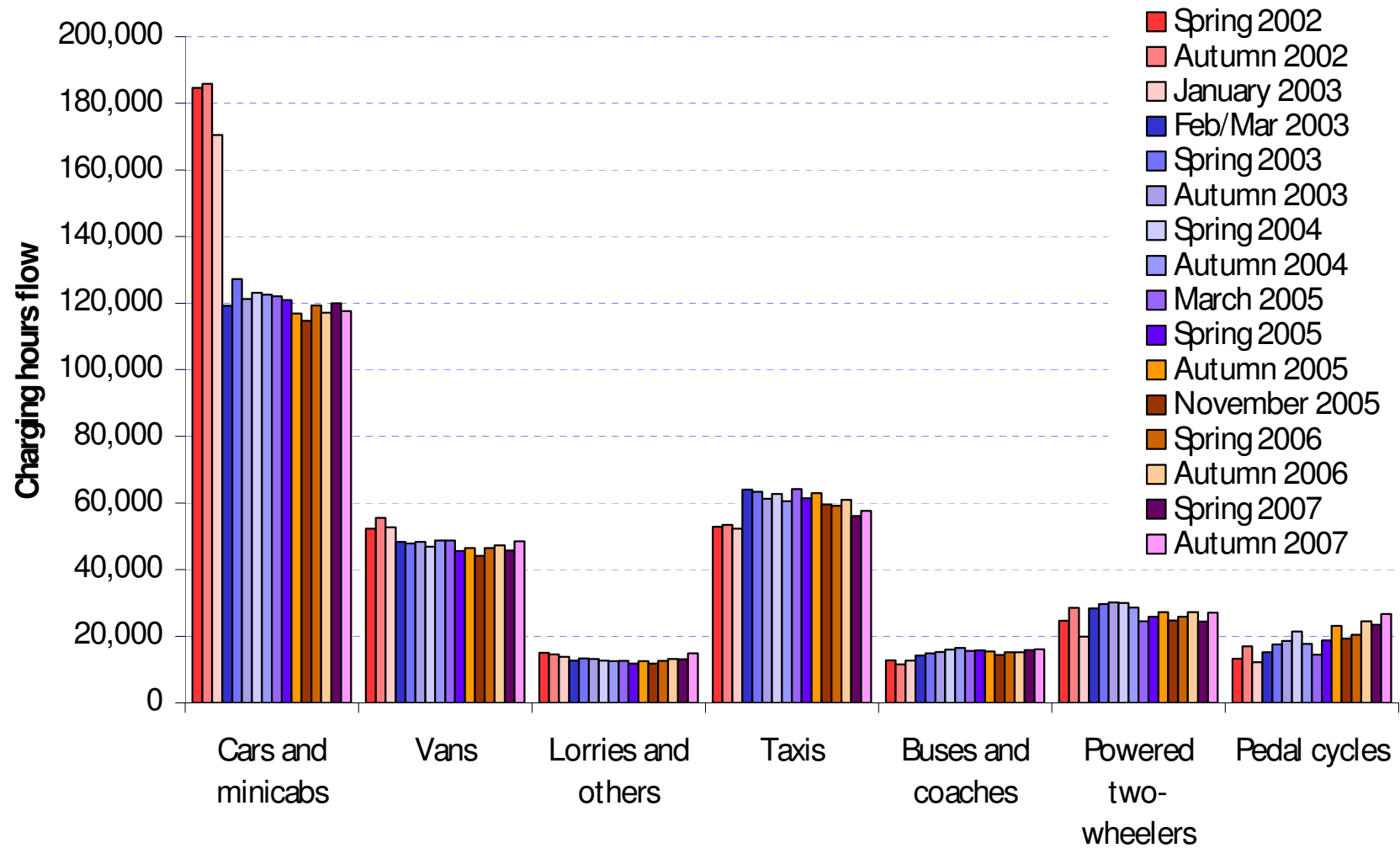
Congestion Charging - Outline



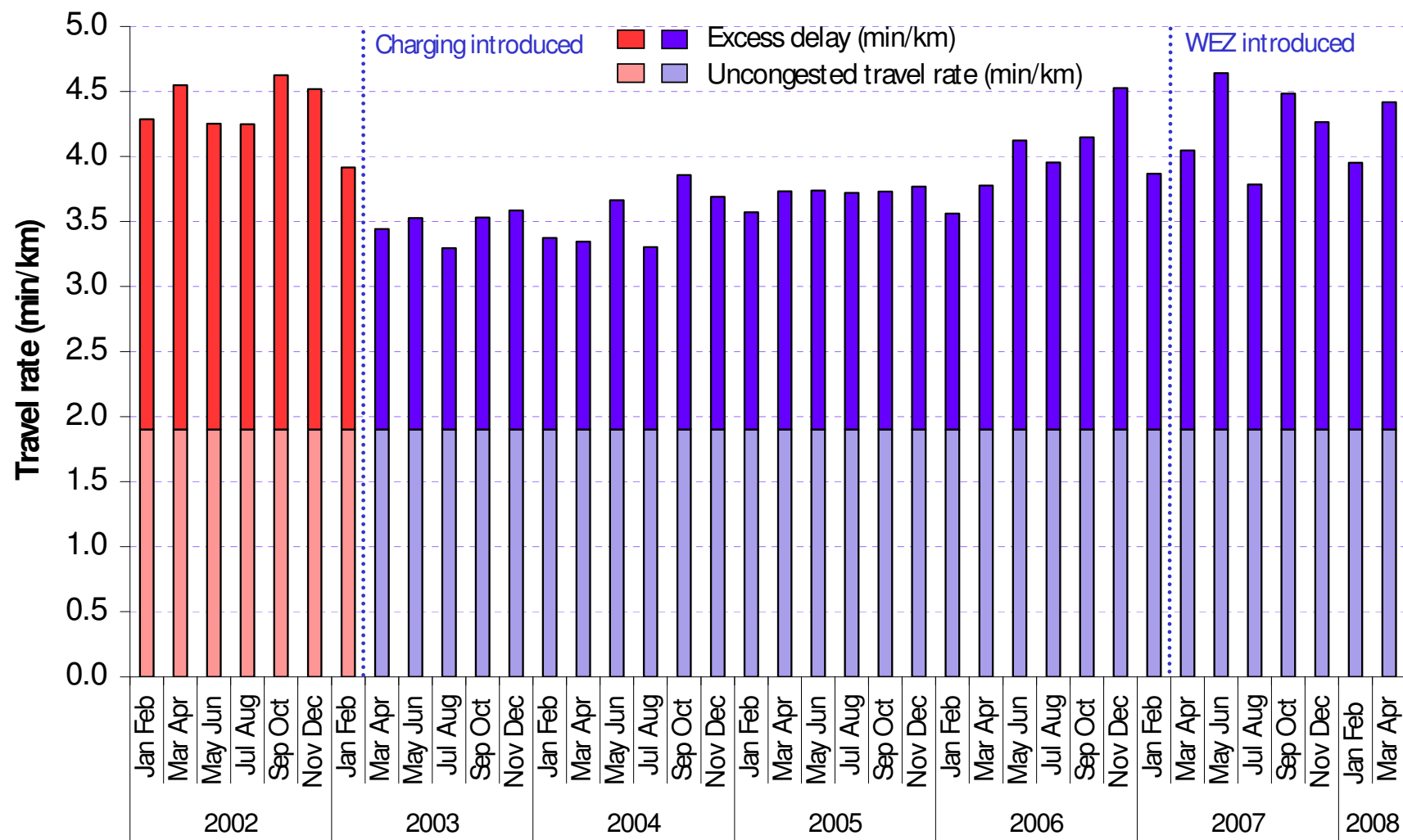
Congestion Charging - Basics

- Basic concept – to more effectively use limited road capacity.
- Basic £8 daily charge.
- ‘Area License’ form of charging.
- 07.00 – 18.00 weekdays only.
- Various discounts and exemptions.
- Central zone introduced February 2003.
- Extended westwards February 2007.
- Mayor Johnson recently consulted on removal of western extension.
- Traffic in central zone down by 18% to 21%.
- Congestion initially down by 30% - but has returned due largely to road space reallocation.
- Cars down by 33%.
- Western extension traffic impacts similar – but on slightly smaller scale.
- Significant attributable reduction in accidents/casualties.
- Emissions reductions commensurate with traffic changes – but no identifiable impact on ambient air quality.
- No measurable impact on economic vitality of central London.
- Raises net revenues for reinvestment in transport.

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Congestion impacts of charging



Congestion – some future challenges !

- London scheme has demonstrated that congestion charging is a workable policy capable of optimising use of scarce road space.
- But it is unpopular and, as we have seen, there are many more potential uses for the road capacity that is freed up by charging – rather than improving journey times for the traffic that remains.
- These include: pedestrian, cyclist and public transport priority, urban realm improvements, road and street works (!), road safety.
- So, Mayor Johnson is pursuing the concept of 'Traffic Smoothing' – which is best thought of as a multi-pronged attempt to better manage the road network through, for example, more closely regulating street works and improving traffic control systems.
- Demand management measures, although not ruled out, are more likely to be of the 'carrot' rather than 'stick' variety, for example encouraging 'smarter travel' and the use of sustainable modes such as cycling and walking.
- However, recent events have been favourable – with London having recorded a 6% shift in mode share to public from private transport, and road traffic levels now falling in all parts of London.



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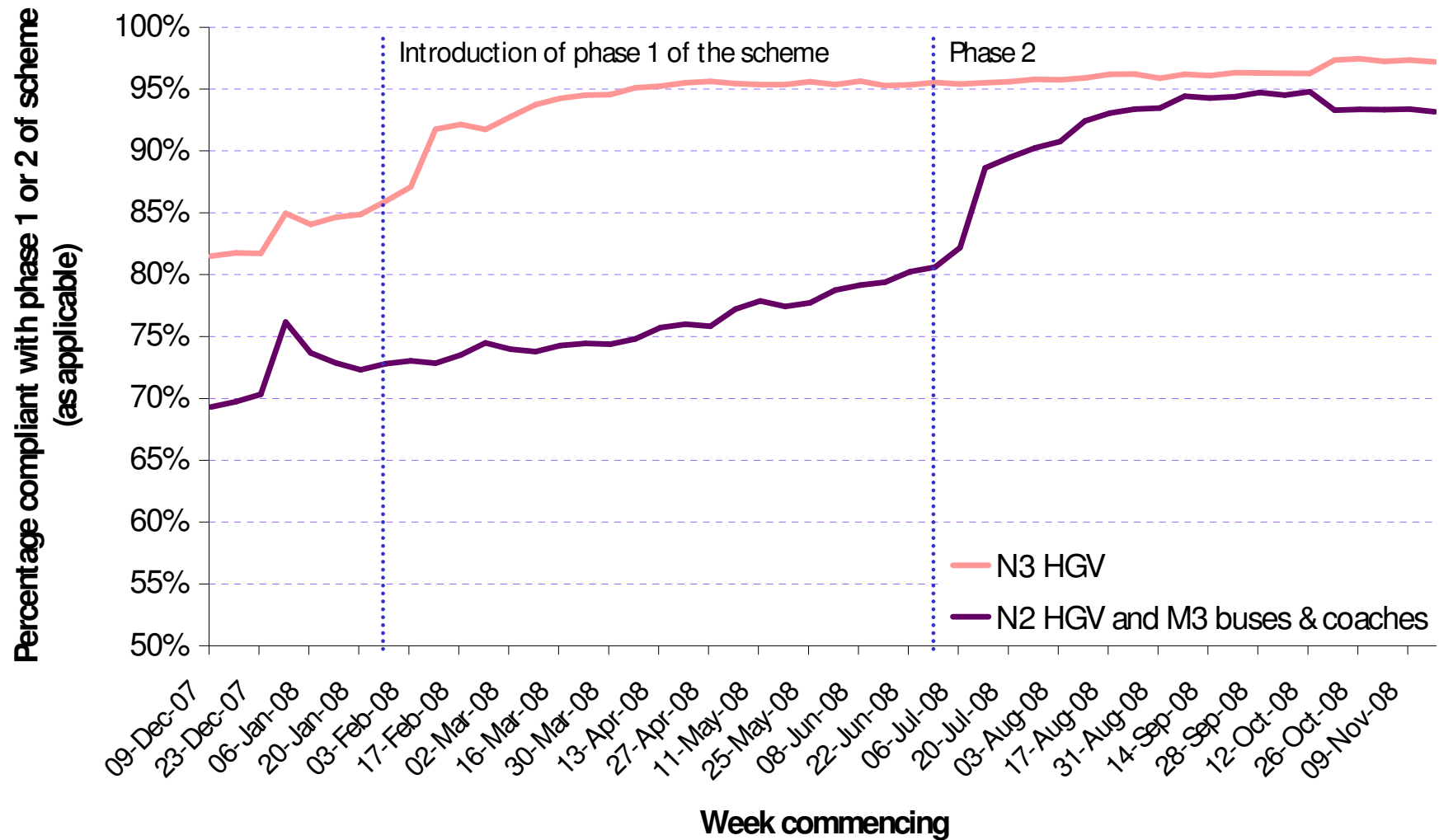
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Low Emission Zone - Basics

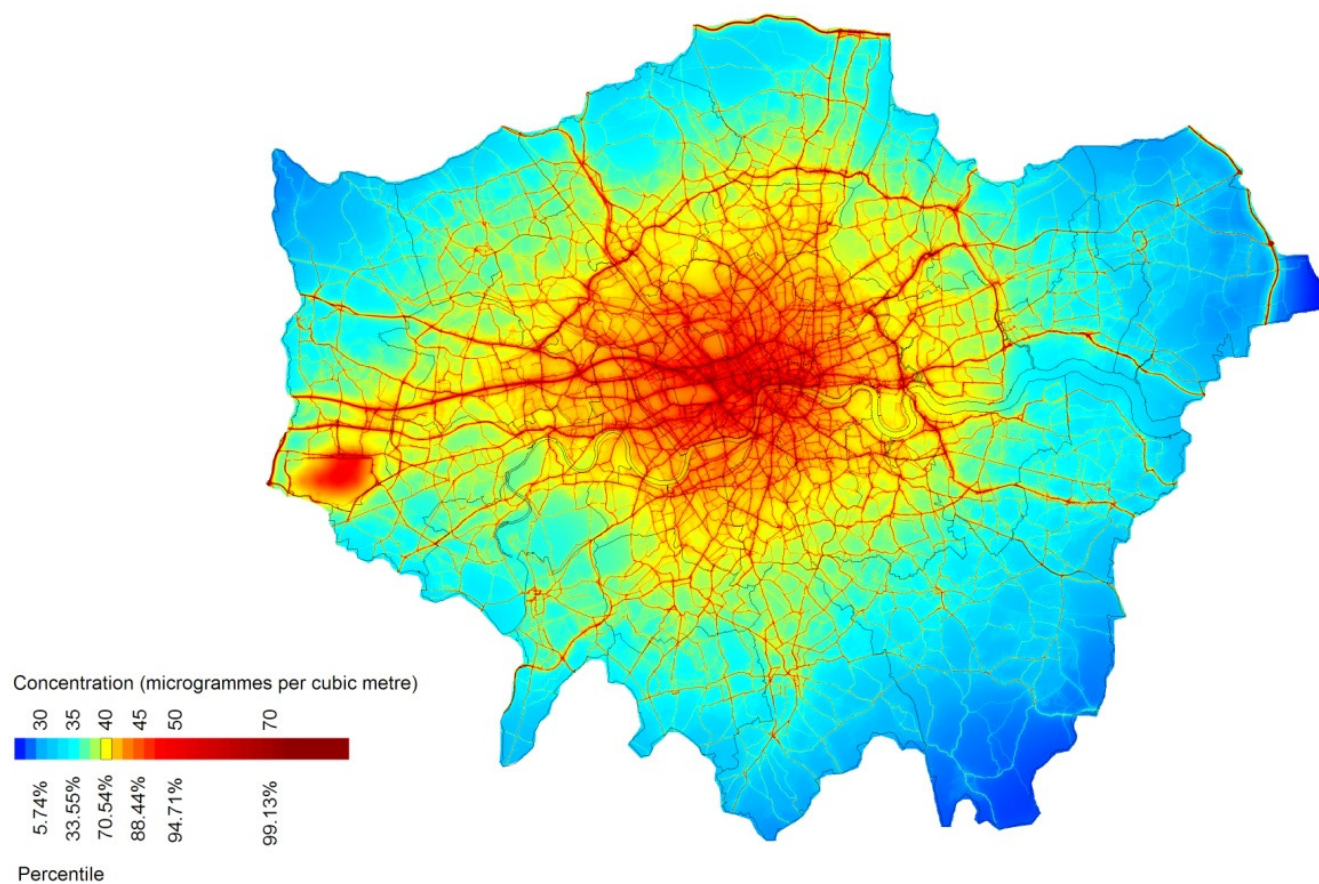
- Basic concept – to encourage, through regulation, cleaner goods and service vehicles to help London meet national and EU Air Quality Objectives.
- Phased scheme – first two phases affecting goods vehicles over 3.5 tonnes and buses/coaches implemented during 2008.
- Applies to whole of Greater London area.
- 24 hours a day, 7 days a week.
- NOT a charging scheme but a regulation – vehicles that comply with requirement are not affected and do not pay a charge.
- Vehicles that do not comply face a penalty (fine).
- Limit set at Euro 3 initially, to be strengthened to Euro 4 from 2012.
- Vehicles that 'are cleaner' because of scheme travel outside Greater London, therefore significant benefits at the national scale.
- BUT obvious cost implications for vehicle operators.
- Mayor Johnson recently announced that proposed extension to lighter goods vehicles from 2010 would be suspended (citing economic climate and impact on small businesses).
- BUT Mayor's Air Quality Strategy being revised to develop new set of policies to help meet Air Quality obligations.

Illustrative reduction in PM10 emissions from 'pre compliance' in 2007

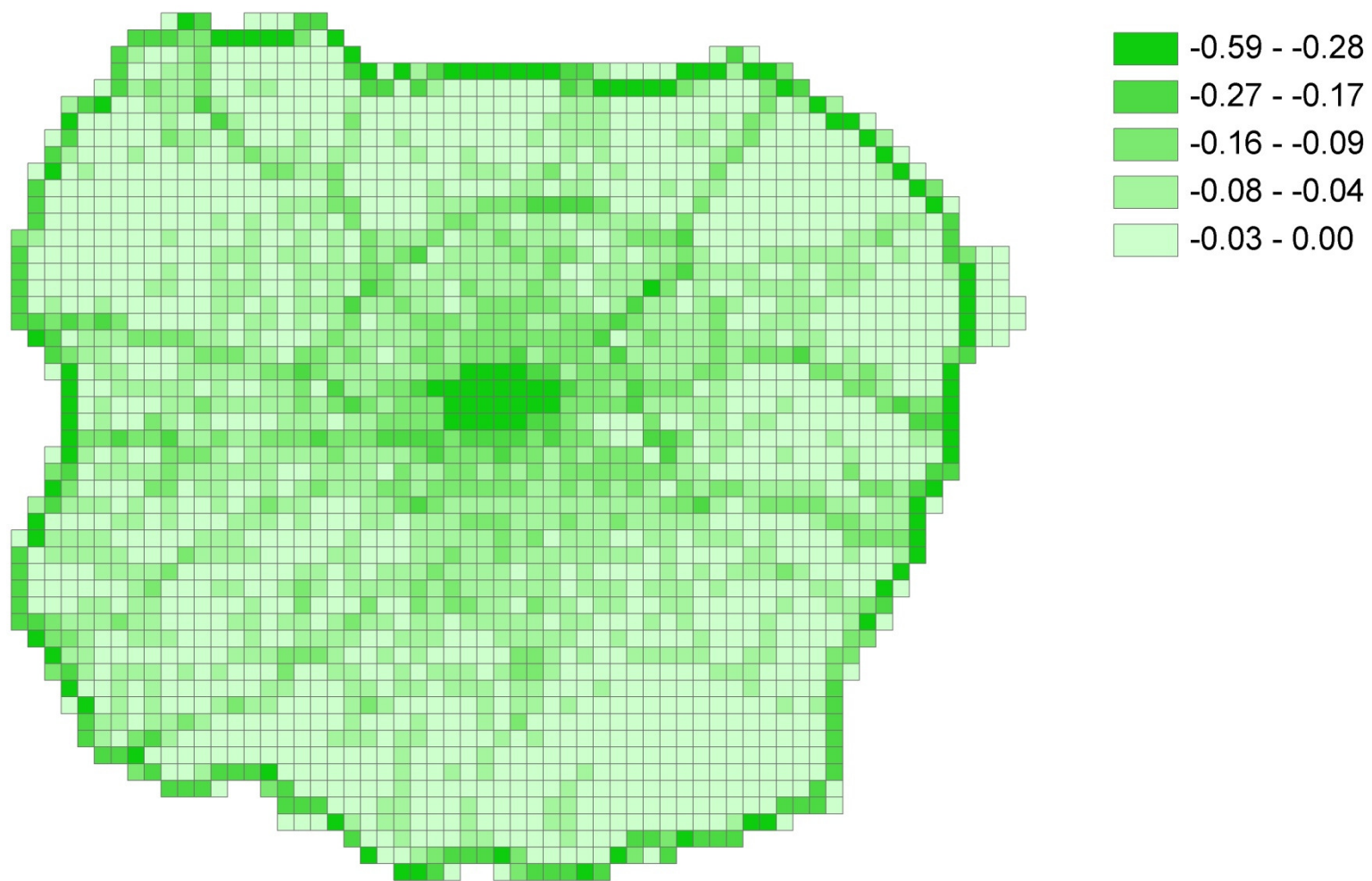


Illustrative reduction in PM10 emissions from 'pre compliance' in 2007

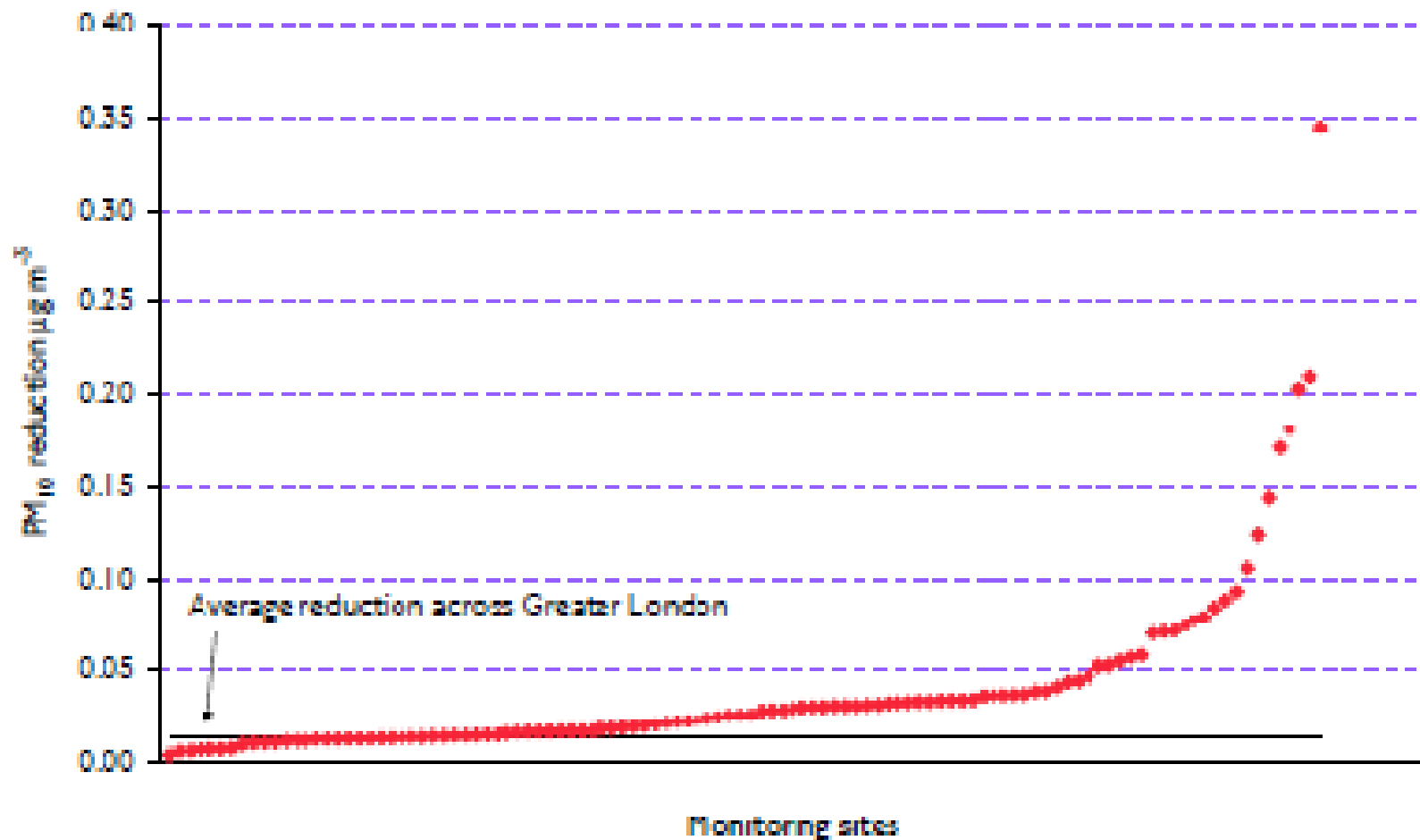
Modelled 2004 Annual Mean NO₂ Concentration (microgrammes per cubic metre), based on 2003 Meteorology and the LAEI 2004



Illustrative reduction in PM10 emissions from 'pre compliance' in 2007



Small average impact across GL, but much higher at 'problem' sites



Air Quality – some future challenges !

- Low Emission Zone will not solve London's air quality problems. More is, and always has been, required.
- It is now clear that London faces major challenges – both in respect of fine particulate (PM₁₀) and Nitrogen Dioxide (NO₂).
- Importantly, these 'newly realised' challenges reflect shortcomings in the 'predictive science' – concentrations of pollution have not responded as expected to successive emissions reduction measures.

- Low Emission Zone schemes imply considerable costs to vehicle operators, and in any case only have the effect of 'bringing forward' the 'natural' process of vehicle fleet turnover.
- But 'voluntary encouragement', for example to 'drive more efficiently' can only go so far – and not nearly enough.
- So, clear that either regulation or financial incentive is still required.
- Options under consideration include vehicle scrappage incentive schemes, tighter regulation of performance of GLA/TfL fleets, measures specifically targeted at air quality 'hot spots' and alterations/future enhancements to Low Emission Zone framework.
- Mayors Air Quality Strategy expected for consultation early 2010.

Comprehensive reports available on TfL website

Transport for London

Central London Congestion Charging



Impacts monitoring

Sixth Annual Report, July 2008



MAYOR OF LONDON

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London Low Emission Zone

Impacts Monitoring
Baseline Report, July 2008



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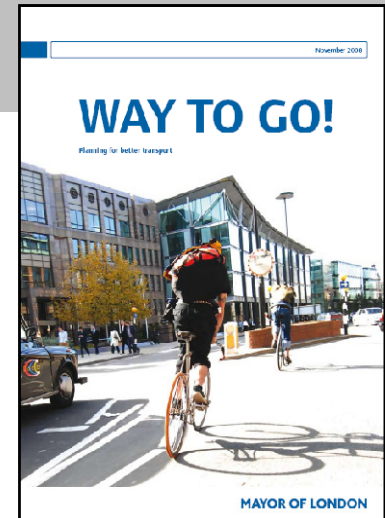
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The Mayor's Transport Priorities

More is needed : The Mayoral priorities

The Mayor published Direction of Travel document 'Way to Go!' (5th November) highlights six transport priorities:

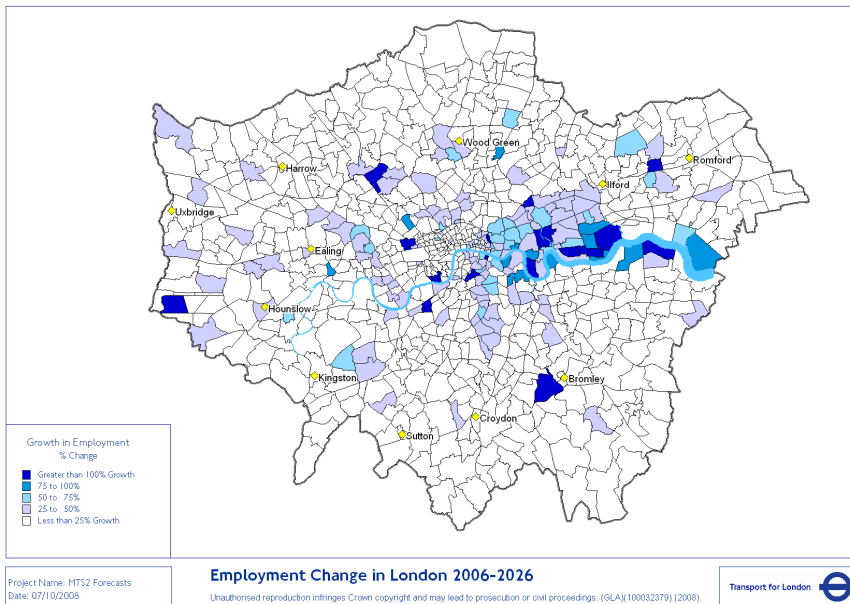
- To further expand public transport capacity
- To smooth traffic flows
- To lead a revolution in cycling and walking
- To deliver our London 2012 transport projects and leave a lasting legacy
- To improve further the safety and security of the travelling public
- To dramatically improve the experience of travelling in London



The future: population & employment are forecast to grow

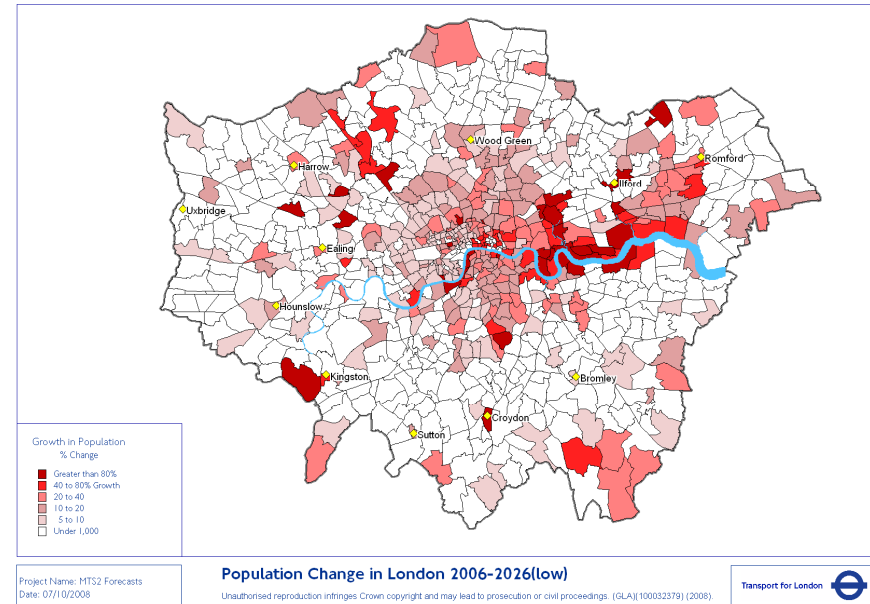
Increase in jobs by up to
900,000 to 5.5 million

Projected Employment Growth
2006 - 2026



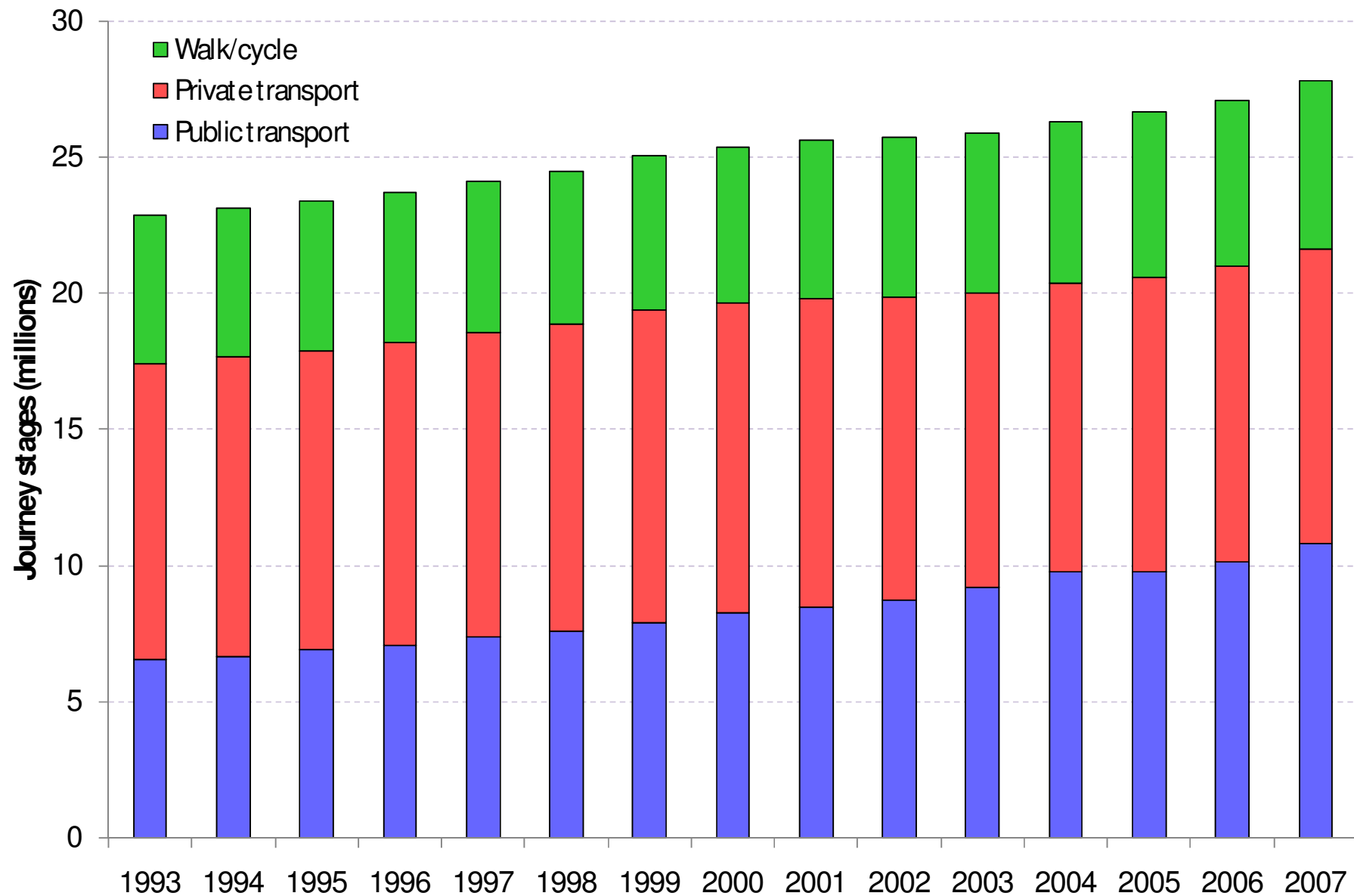
Increase in population by up to
740,000 to 8.3 million

Projected Population Growth
2006 - 2026



Source: GLA Economics Projections

Travel demand is growing – journey stages by mode



■ Take just one - cycling

Vision of 5% of all trips being by bicycle by 2025.
Currently about 2%

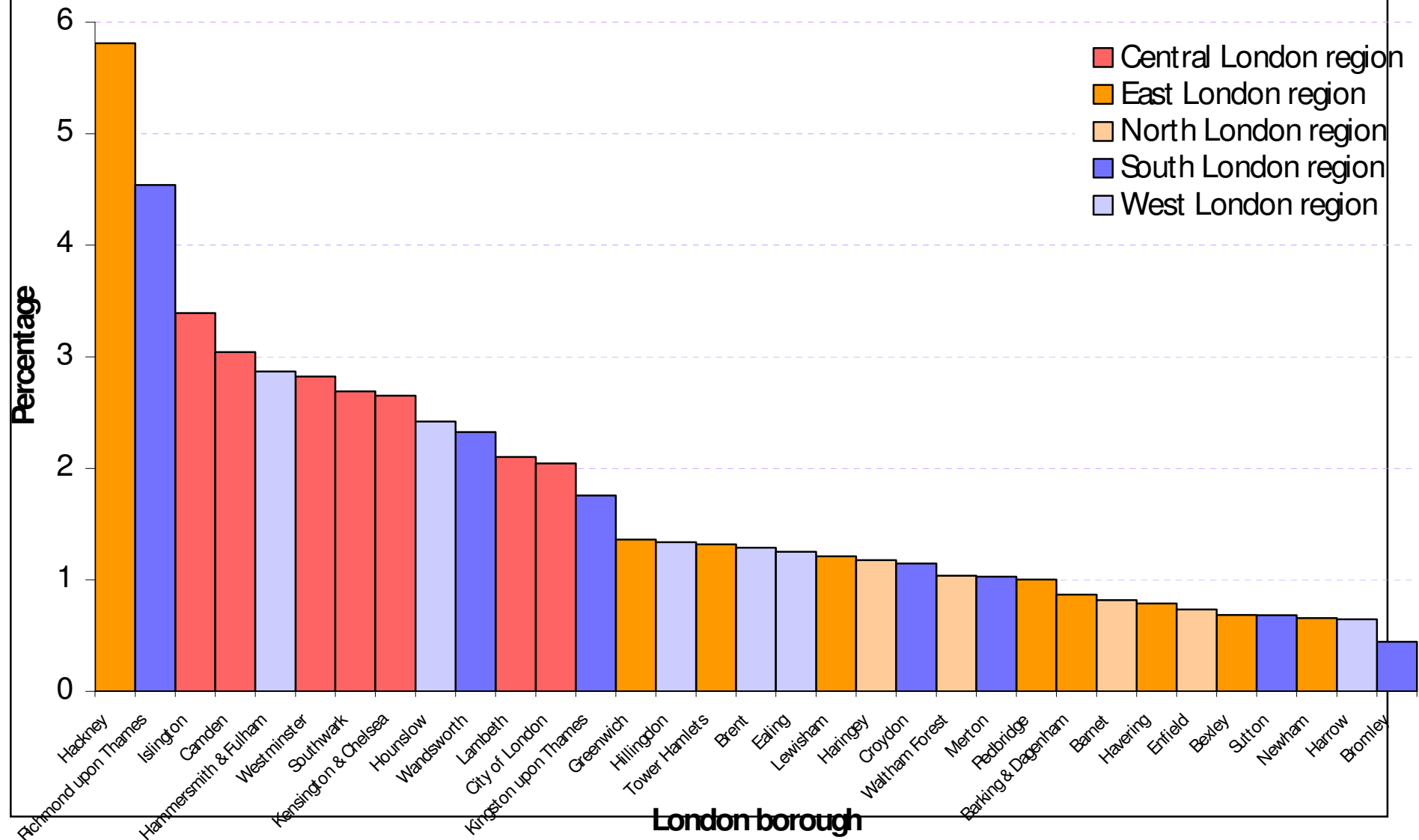
How might this be best achieved ?

- Target all people equally ?
- Target areas/trips that are especially suited to cycling ?
- Put more effort into more 'receptive' areas ?
- Or try to bring all areas up to equal level ?

Is this all good news ?

- Many 'good' aspects to this.
- But possible negative effects on accidents and traffic congestion – will have to be managed.

Percentage of cycle trips by borough of trip origin



Cycle trips by age and gender

