

Congestion Charging in Central London

Charles Buckingham

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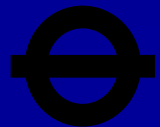
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- Costs/Revenues

Rationale

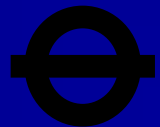
- Central London context
- Average traffic speeds 14 km/hr
- Vehicles typically spent half of time in queues
- General acceptance something had to be done
- Mayor of London (2001)
- Mayoral Strategies
- Congestion charging one of many policies in Mayor's Transport Strategy
- Requirement for strategies to be integrated





A “simple” scheme

- Area charge (£5, now £8 per day)
- Flat rate, all-day charge
- Range of discounts/exemptions
- Using reliable, available and proven technology – a simple solution employing cameras and ANPR
- ONE key objective – to reduce congestion



Operations Infrastructure



TfL Hub Site



Capita Data Centre

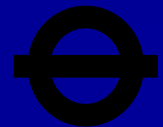
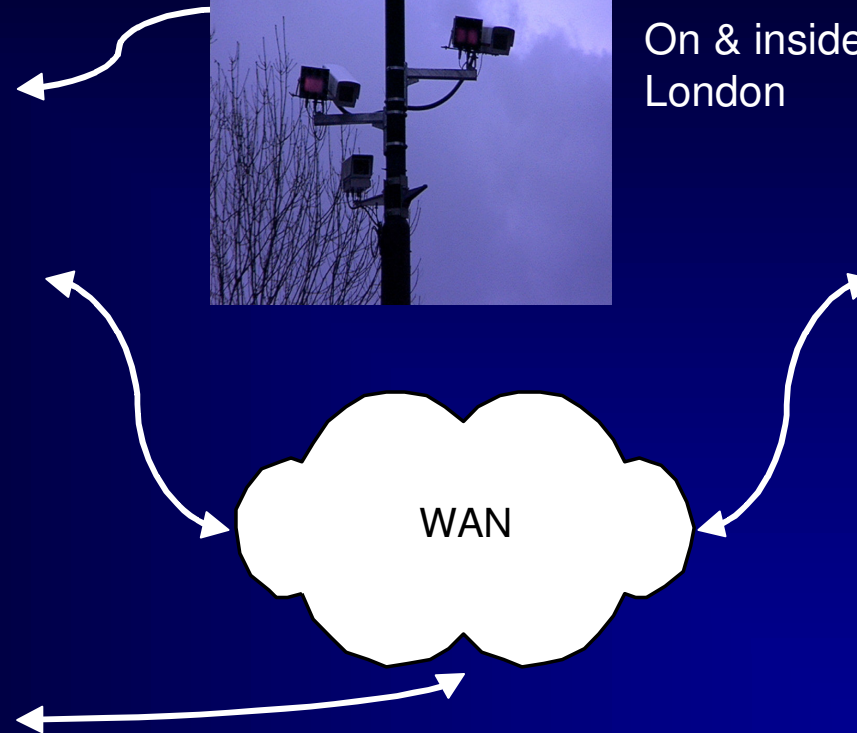


Cameras

On & inside Inner Ring Road
London



Call Centre



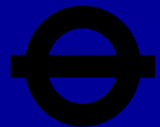
Key Impacts



Key Benefits From Scheme

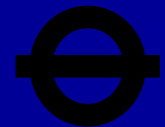
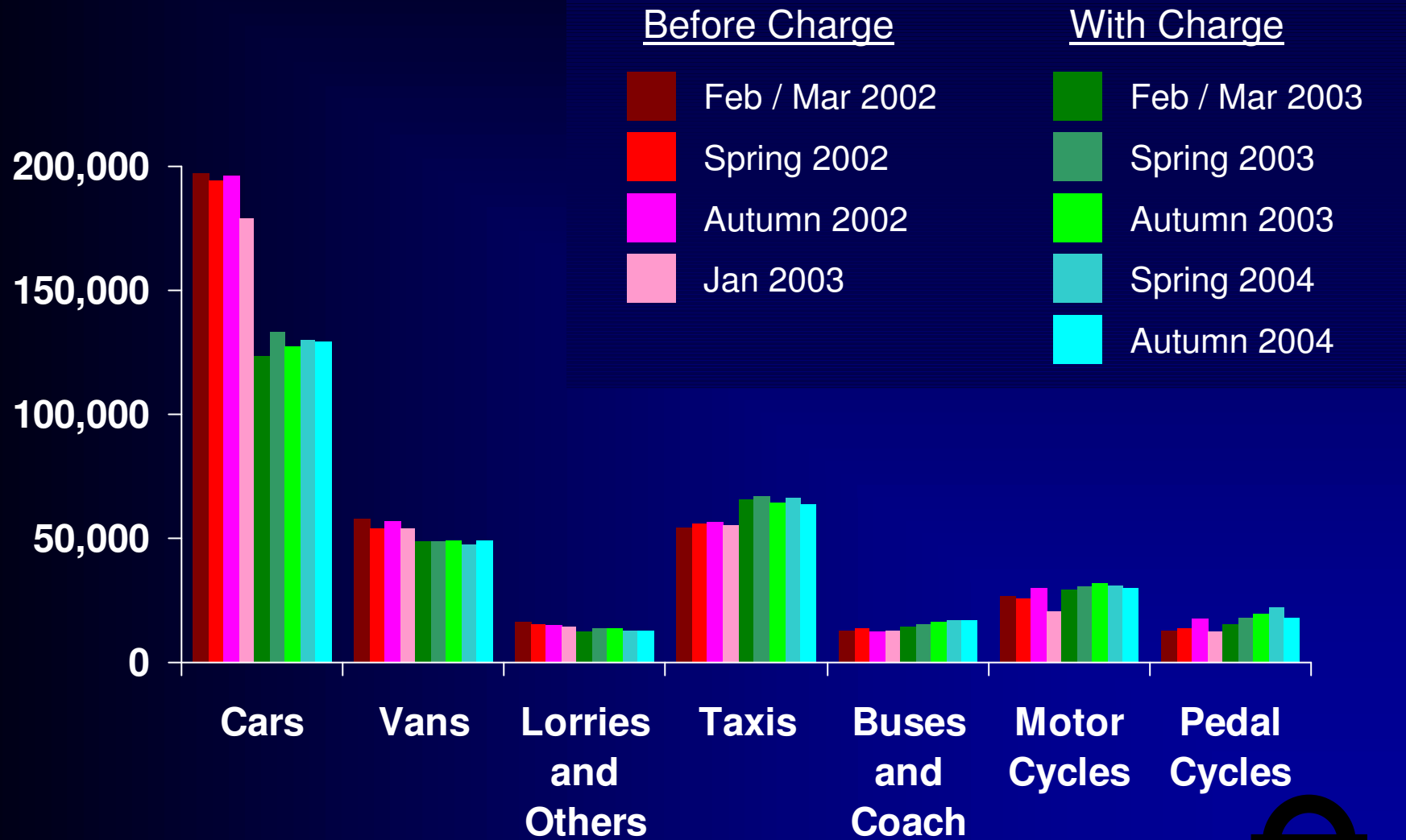
- Total traffic down 15-18%
- Congestion down 30%
- Dramatic bus network improvements
- 'Excess' accidents savings
- 12% reduction in emissions (PM_{10} and NO_x)
- Revenues for re-investment in transport

- Benefits have been sustained
- Few traffic or other 'side effects' noted
- But continuing debate over retail impacts



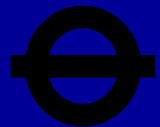
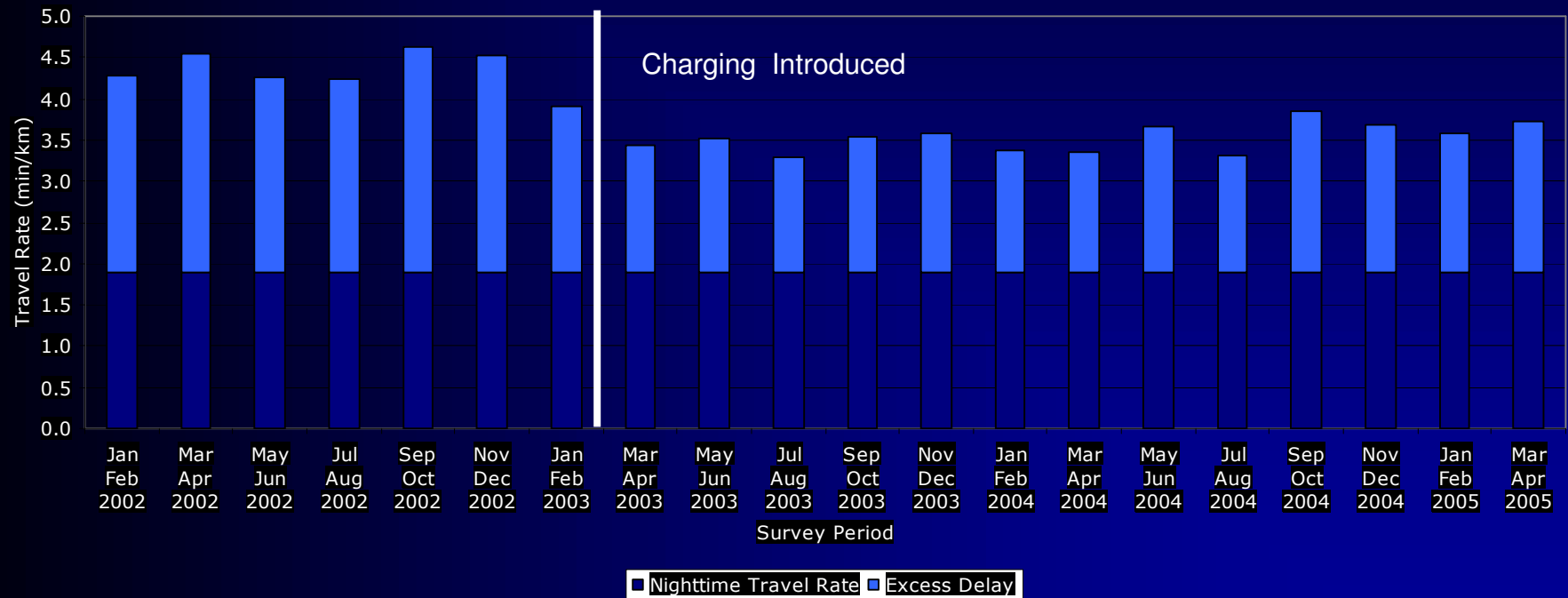
Total traffic entering the charging zone

During charging hours



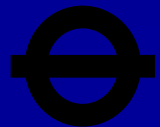
Reduction in congestion – Averages 30%

Travel Rate in Charging Zone during Charging Hours



Social and economic impacts

- Overall, people tended to over-estimate impacts
- Most people/businesses substantially unaffected
- Overall continued support for scheme
- Financial implications small in CL context
- Some evidence of more intense sector-specific effects (e.g. retail)
- BUT 'background' difficulties also play significant role
- Lesson – extremely difficult to disentangle effects

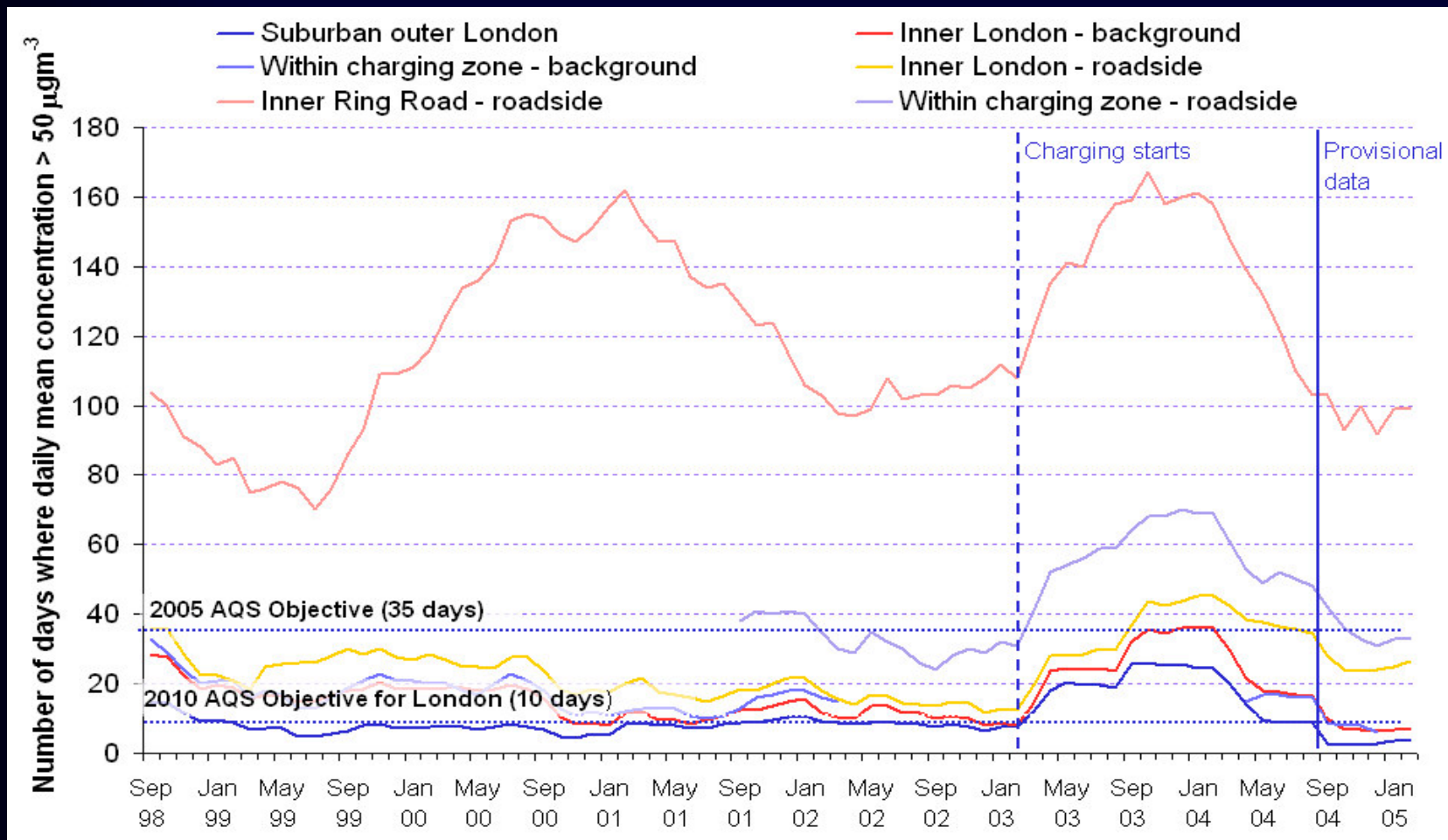


Emissions gains from scheme

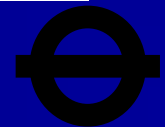
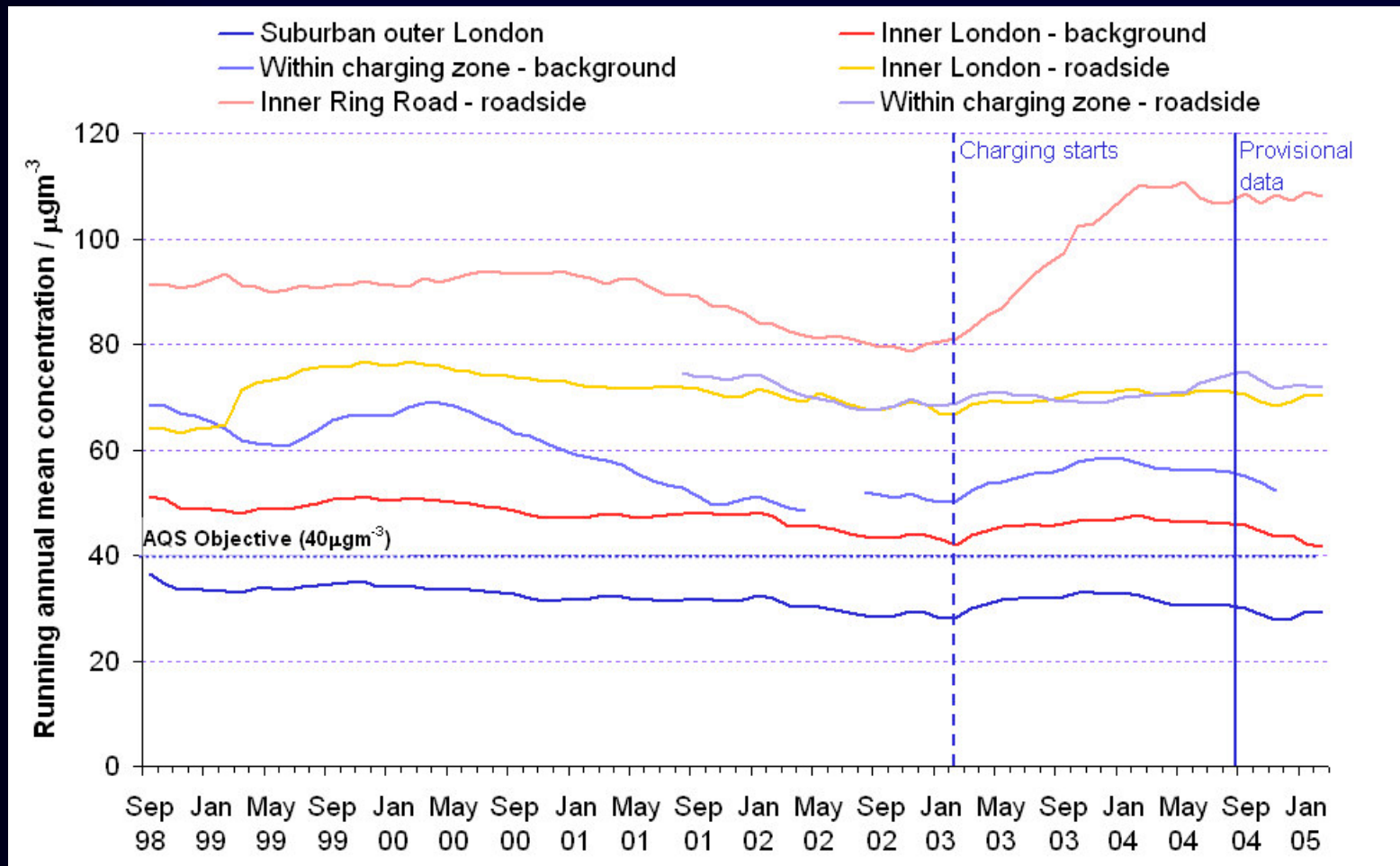
Percentage change in relation to pre-charging base (100%)	Charging zone NO _x	Charging zone PM ₁₀	Inner Ring Road NO _x	Inner Ring Road PM ₁₀
Volume change - motorcycles	0	+1	0	+1
Volume change - taxis	+1	+3	0	0
Volume change - car	-6	-4	+1	+1
Volume change - bus and coach	+4	0	+3	0
Volume change - light goods	-1	-2	+1	+2
Volume change - rigid goods	-2	-1	+1	0
Volume change - articulated heavy goods	0	0	0	0
Speed changes (all vehicles)	-8	-9	-4	-5
Percentage change due to traffic and speed changes	-12	-12	+2	-1
Emissions factors (fleet turnover and technology mix)	-4	-4	-6	-5
Overall traffic emissions change	-16	-16	-4	-7



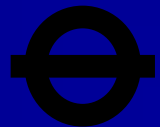
PM₁₀ trends (exceedence days)



NO₂ trends (concentrations)

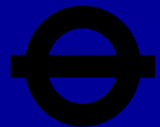


Costs and Revenues

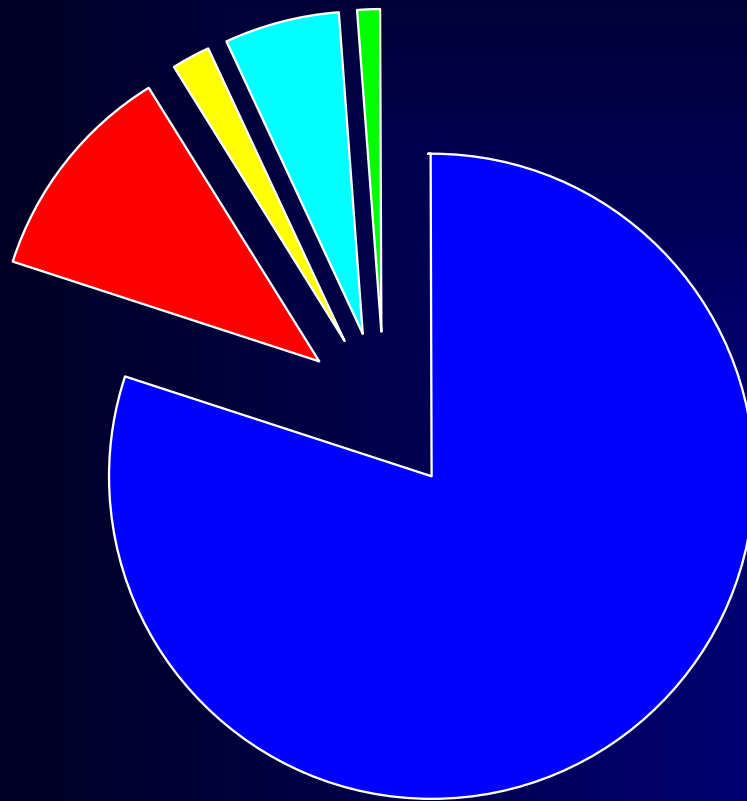


Scheme revenues and costs 2004-2005 (£m)

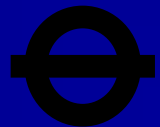
- Revenues:
 - Standard charges (at £5) 98
 - Fleet charges (£5, £5.50) 17
 - Residents' charges (£2.50/week) 2
 - Enforcement income 72
 - (Total revenues) 190
- Costs: 92
- NET REVENUES 97



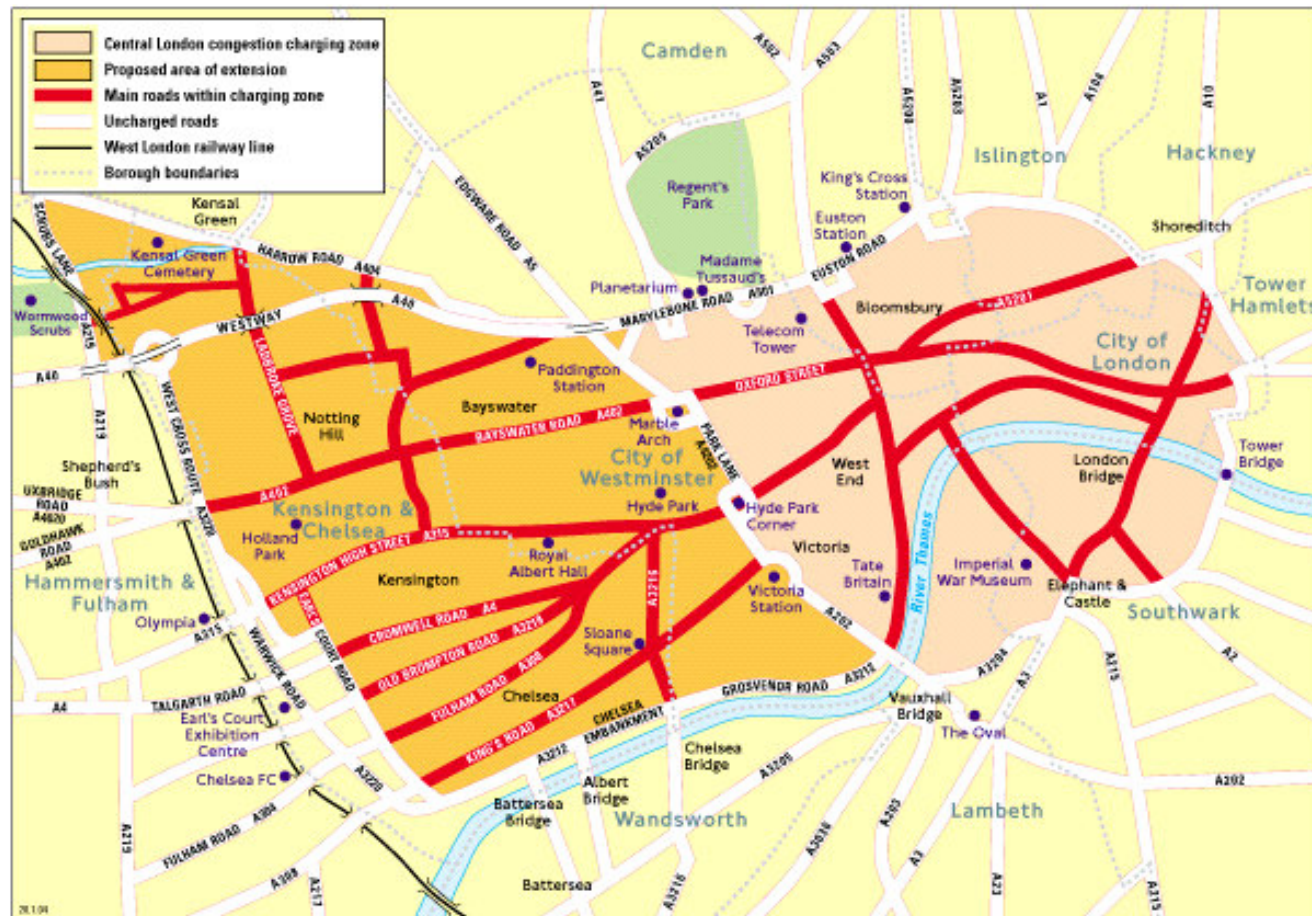
Use of revenues



- Bus network improvements
- Road safety
- Safer routes to schools
- Walking & cycling
- Distribution & freight



Western Extension Zone (from 2007)



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