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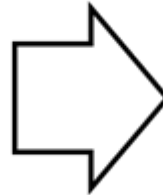
Cost Effective Local Actions To Cut London's Air Pollution

Iarla Kilbane-Dawe

Key Messages



Best Practice or Best Available Technology exists that we don't use in London.



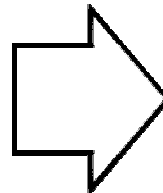
Low cost cycle infrastructure (USA, Spain)
Vertical exhausts (Italy, USA, Australia, S. America)
Behaviour change (San Francisco)
DPFs on taxis (Germany, Switzerland)

14 actions do more good than they cost
8 deliver actual financial savings
Reducing pollution can save money



Reinforces the need for and value of some already in place:
CMA, AQ Neutral, Taxi Idling Marshalls, Business Engagement,
Cycle to work schemes, car clubs, ecodriving
Several new approaches beginning already:
Low cost cycle lanes, Campaign Days, Zero Emission Deliveries,
Sectoral engagement LEZs
Some don't work or aren't cost effective for AQ alone:
Street cleaning, biogas RCVs, green walls, APUs, HRA etc

We can deliver effective local AQ action now that delivers far more benefits beyond AQ



Supports The Rapid Action We Need Now

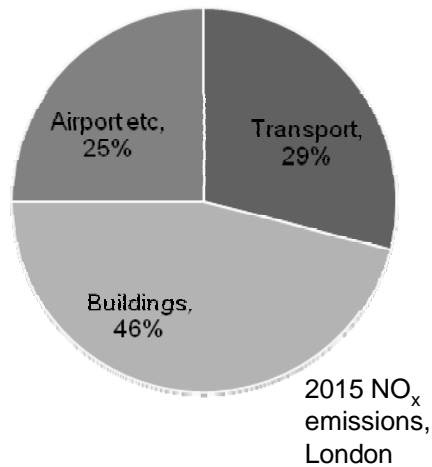
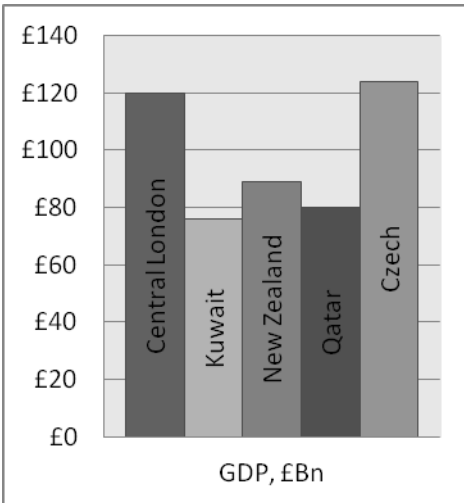
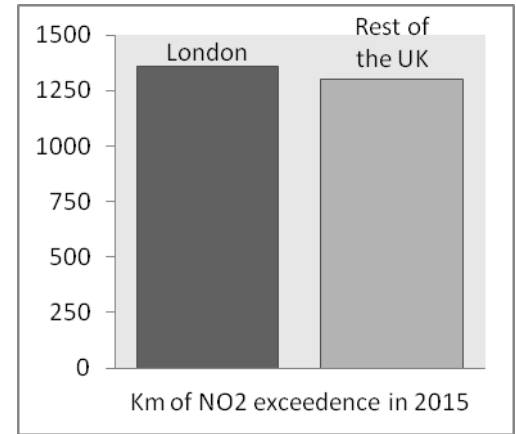
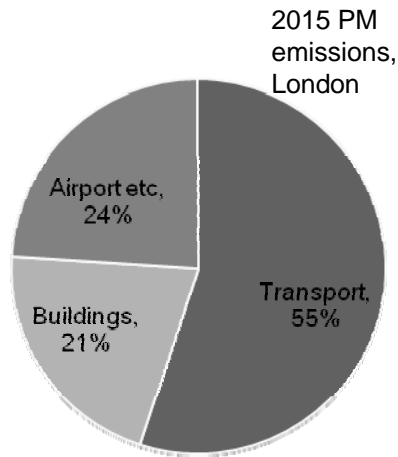
- Consulting and informing key stakeholders
- Providing actionable recommendations
- Supporting decisions with clear, timely follow-through when required (e.g. presentations, data support).

London Air Quality in 6 Figures



The Complete List of Alpha++ Global Cities

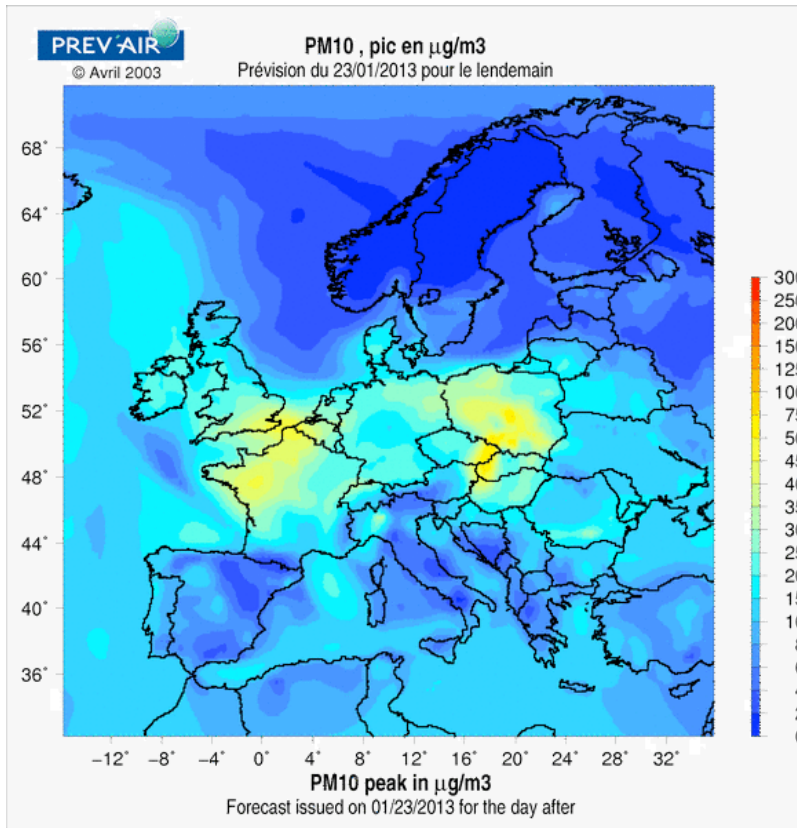
- London
- New York



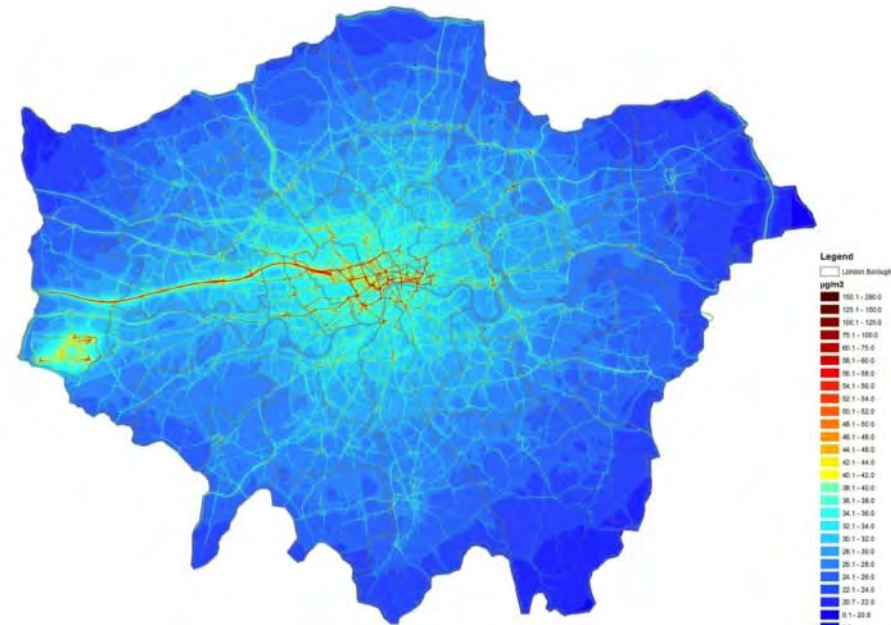
7.23%

of deaths in London attributed to PM air pollution by DH.

A regional and a local problem



This we influence



This we control.

But we have other problems!



- **Business costs**
- **Pay going down**
- **Traffic congestion**
- **Obesity**
- **Health inequality**
- **Global warming**
- **Biodiversity loss**
- **Noise**

High Impact Measures



- High Impact > 10% reduction within the sector

Ultra low NOx boilers

90% cut
in
concs.



- Zero cost so BCR is infinite.
- NOx reductions up to 90% - over time this will have a huge impact on emissions of NOx from home, offices and other premises.
- Work now underway to develop a list of these that can be used for reference by buildings systems engineers.

Improved Low Cost Cycle infrastructure

£250M
savings
pa



- Spanish & NYC cycle tracks cost 10%-20% of UK designs.
- These have led to dramatic increases in perception of safety.
- Signage integration also needed.
- TfL study suggests £250M pa savings to cyclists is achievable.
- Key targets: bus, taxi, rail users.
- Cycle hire the most effective cycling infrastructure.

DPFs for Euro 3 Black Taxis



- By 2015 will Black Taxis will emit 40%-48% of PM in RBKC, City & Westminster.
- Costing ~£1500, these can reduce exhaust PM by up to 99%.
- DPFs approved in the UK suitable for Black Taxis already exist. But DPFs being taken out!
- Taxi drivers have a 20p subsidy per fare to finance this, giving each about £700pa.

Quick Win Measures



- High Benefits:Costs ratio \geq 4-20 and above, but medium size



Insulating homes

- Often zero or low cost due to grants or Green Deal
- Heat demand reductions of 25%-40%.
- Priority should go to those in fuel poverty.



Car Clubs

- Generate revenue for Councils
- Replace cars with cleaner cars, HEVs & ZEVs
- BCR 14



Cycle to work schemes

- Save employees about £700 per year
- Improve staff health
- BCR 6



Ecodriving for taxis

- Can save NO_x and fuel
- Needs NO_x customisation
- Already compulsory for new taxi drivers



Business engagement

- Cases of considerable cost savings in vehicle use.
- Need for audit and check-back to reinforce.
- BCR 22 for some cases.



Zero Emission Last Mile

- Very successful trial with two City suppliers.
- 11 more suppliers now identified.
- BCR was 4, new evidence suggests likely to be about 12-15 as much cheaper to find than estimated.



Idling Wardens & FPNs

- Only effective for very large ranks, 200 or more, or bus stands of more than 7 buses.
- BCR depends on the value of the FPN – higher penalty charge would allow these to be applied on smaller ranks.

Acute Episode Measures



- BCR~2, but can reduce episodes in-day.



Campaign Days

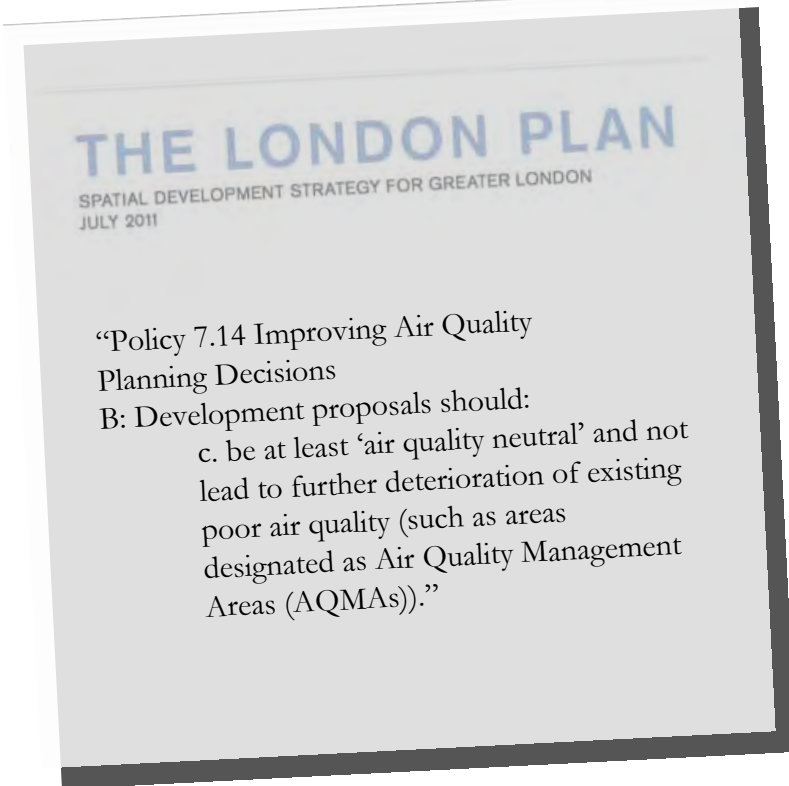
Deliver annual reductions of about 9% in SF driving.
Includes business, school and community projects.
Publicity budget about \$1.5M.



CMA Spraying

Operating in Scandinavia for over a decade
Can reduce PM by 10%-20% on the targeted roads.
Limited by road speeds, ~100km/day in London.

And just one more...



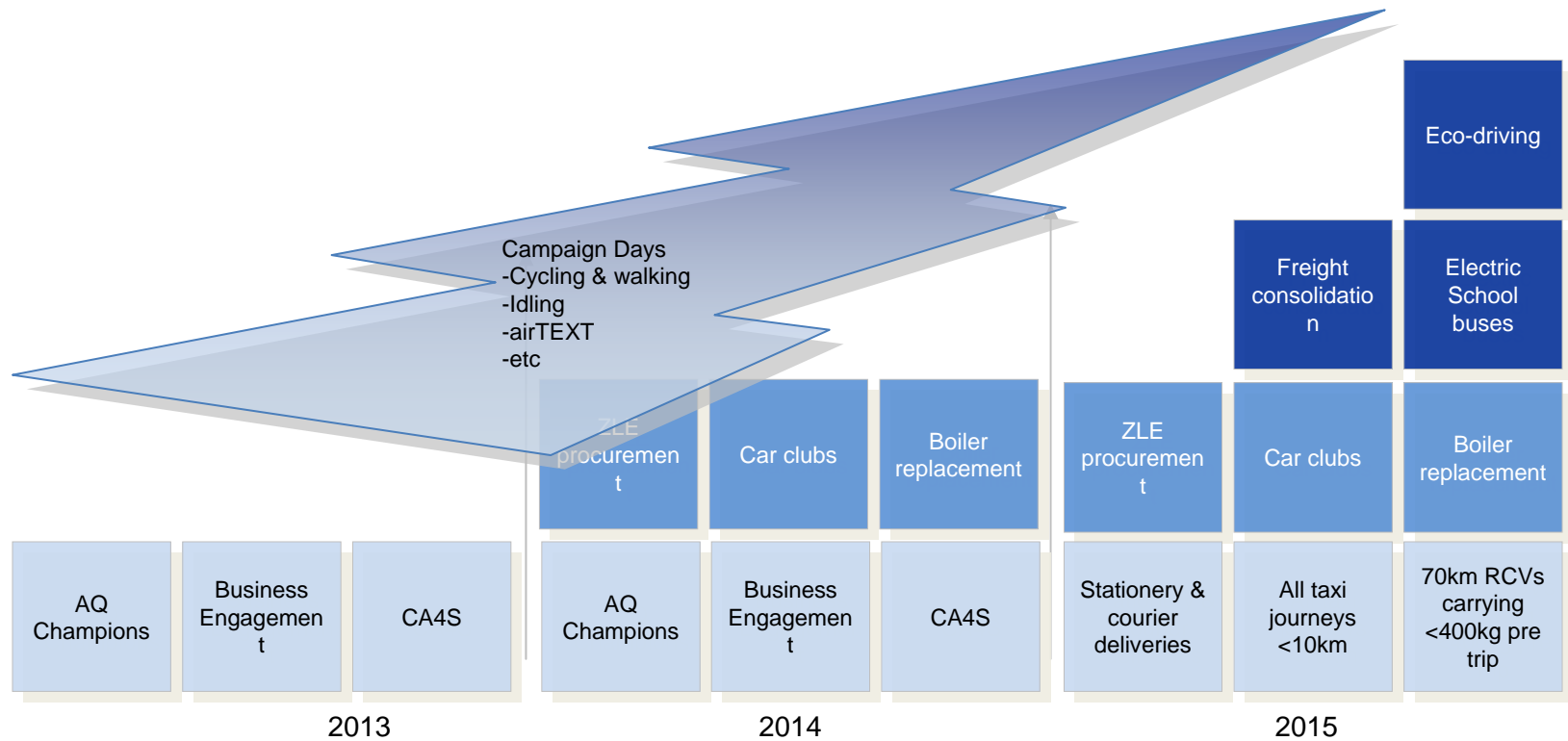
- This is essential to reduce NO₂, as new developments tend to be more intensive.
- Evidence suggests that energy efficiency is in many cases the cheapest solution to hit the 2010 and 2013 TERs.
- Management of CHP is also crucial. Done well, CHP can be very energy and cost efficient. Done badly it can lead to big hikes in local NO₂ emissions.

The benefits of these air quality actions

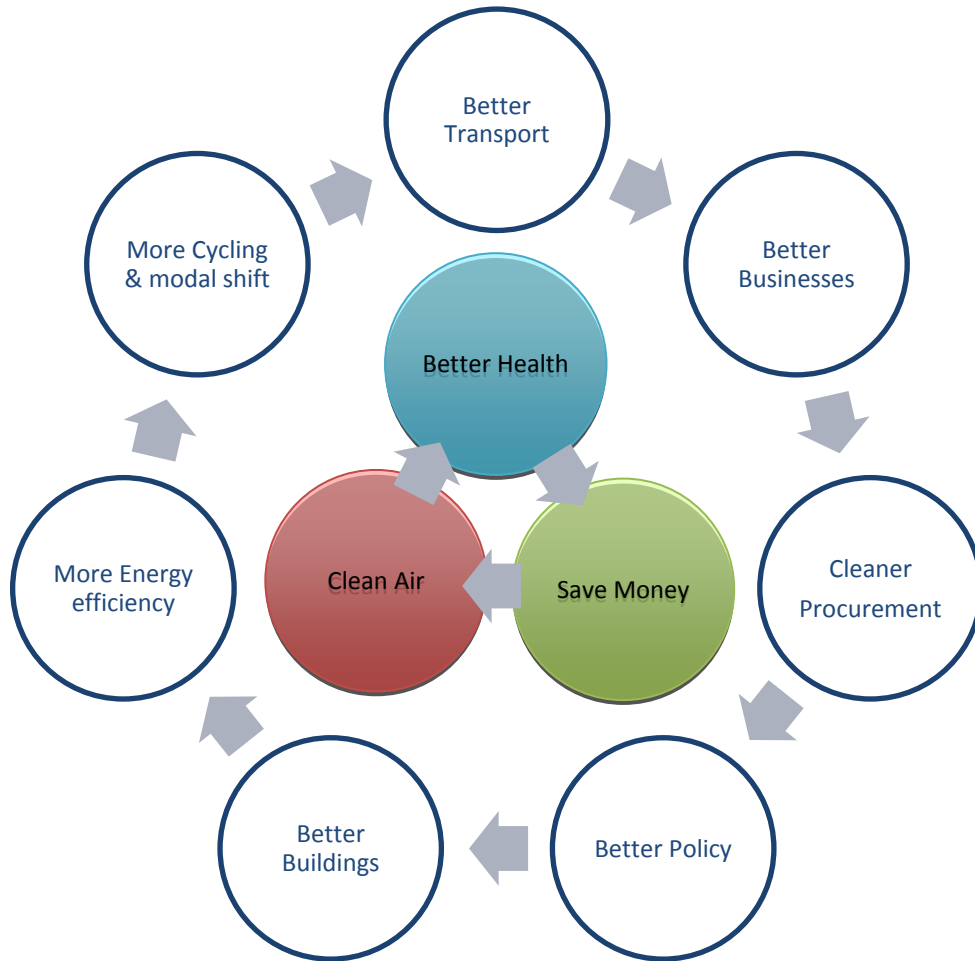


	CO2	Business savings	Inequality	Obesity	Congestion	Biodiversity	Noise
Cycling	★	★	★	★	★	★	★
Car clubs	★	★	★			★	
Insulation	★	★	★			★	
Boilers	★	★				★	
Taxi ecodriving	★	★				★	★
ZLE deliveries	★	★	★	★	★	★	★
Business engagement	★	★		★	★	★	

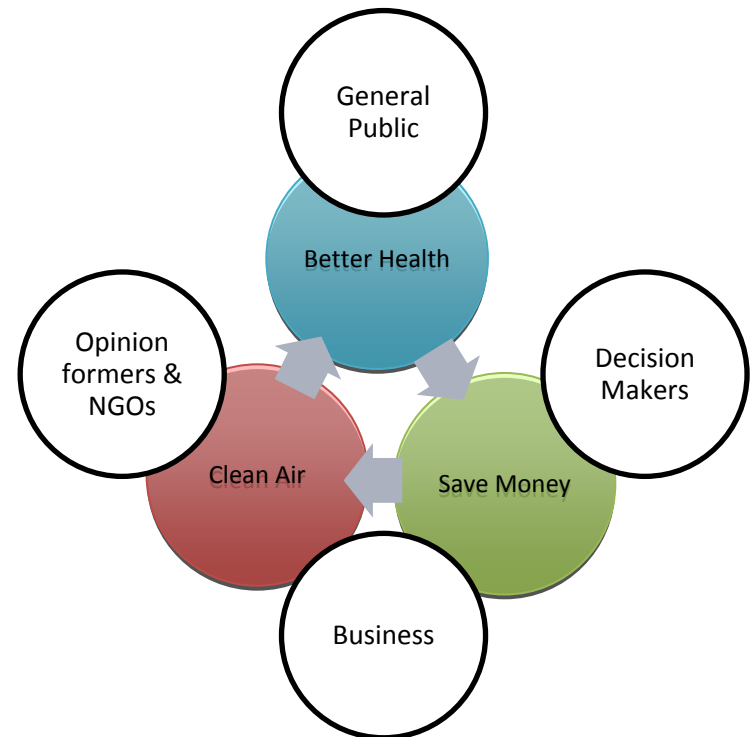
Putting these together to build a “sustainable transport zone”



Telling a story that makes everyone feel empowered to help themselves and others



But to make it happen, we have to inform people in the right way and give them the evidence that delivers “better.”

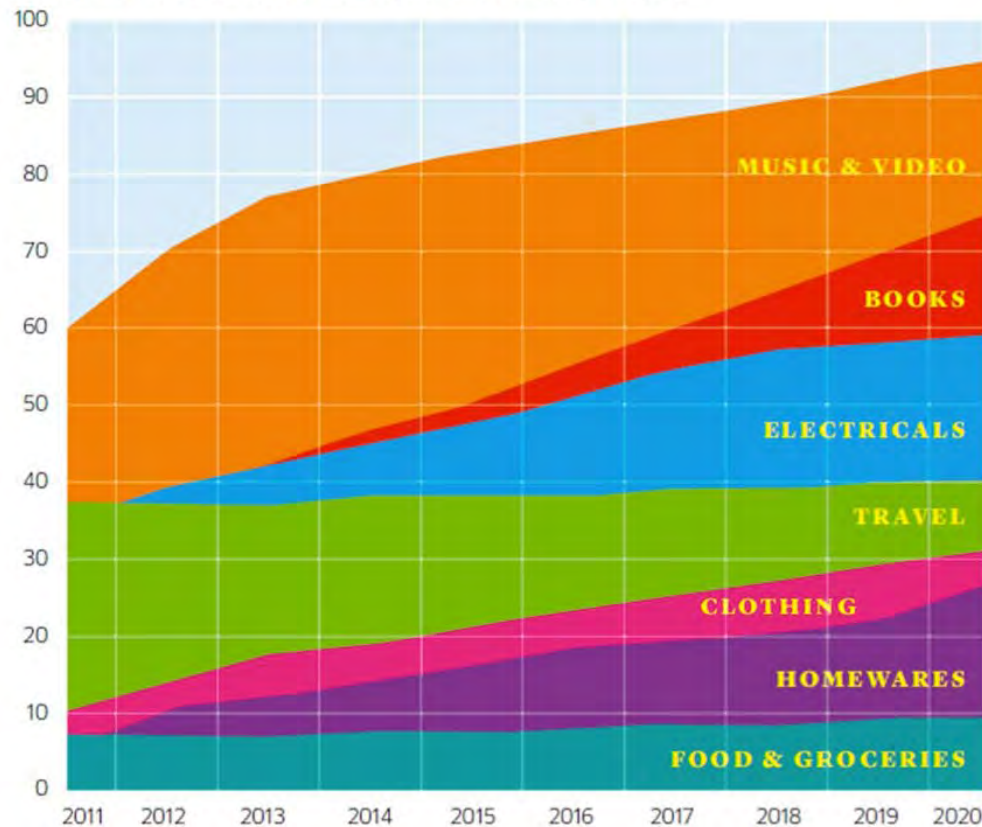


We need a sustainable transport system for London's future



1 | High street nemesis

> Online sales forecast as a percentage of total sales, by category



Independent,
Jan 2012

The challenges



- Co-ordination of local, regional & national.
- Building & maintaining momentum.
- Long-term planning across physical and political boundaries.

- But the prize...

A vision of an Alpha+++ London

