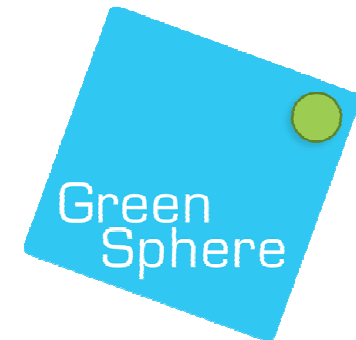


# Making the National Case for Low Emission Strategies

**Rob Pilling (Green Sphere)**



**Harm & Response**

**Interventions & Integration**

**Benefits**

# Local Action on Air Quality

- Historically no significant identifiable health / environmental benefits
  - Emphasis on monitoring rather than action
  - Complexity around demonstrating benefits
  - Trans-boundary pollutants
  - Local political / economic barriers
  - Limited direct control over emissions sources

# Low Emission Strategies World View



- Practical cost-effective action to reduce emissions across local area
- Separate concentrations assessment from practical action planning and delivery
- Consider both air pollutants and GHG
- Share good practice, encourage flexibility and local tailoring

# Low Emission Strategies World View



Local Measures bring Local Benefits



*What if all Local Authorities adopted  
Low Emission Strategies?*

# Interventions to reduce emissions

**Reduce total  
vehicle  
mileage**

**Shift to less  
polluting  
modes**

**Improve  
on-road  
emissions  
performance**

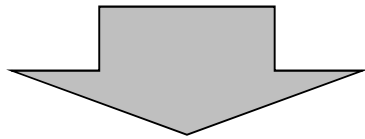
- Councils opportunities for action
  - Direct – on own operations
  - Indirect – policy and influence in local area

# Case examples

- Collated 90 examples of interventions to reduce transport emissions
  - Managed fleets
  - Low emission developments
  - **Area wide approaches**
    - *Air quality action plans*
    - *Local Transport Plans*
    - *Area-wide Low Emission Strategy*

# Benefits Analysis

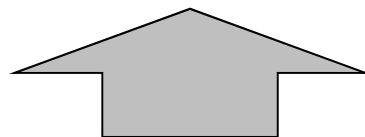
**Top Down – National Emissions Projections**



**Council Fleet  
Management**

**Planning and  
Development  
Control**

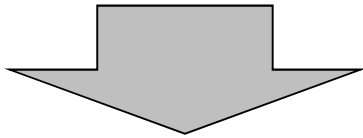
**Area-wide  
transport  
emissions  
management**



**Bottom up – LES Case Studies plus Low Emission Toolkit**

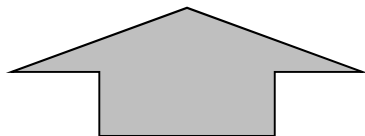
# Benefits Analysis

Top Down – National Emissions Projections



**Council Fleet Management**

- Fleet policy reviews
- Fleet operations and management
- Driver skills
- Modification / improved maintenance
- Low Emission replacements

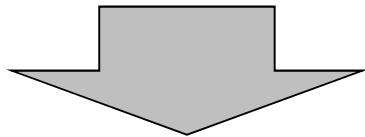


**=> 30%  
reduction**

Bottom up – LES Case Studies plus Low Emission Toolkit

# Benefits Analysis

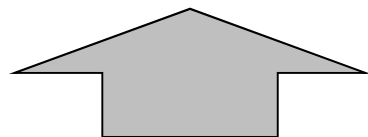
## Top Down – National Emissions Projections



**Planning and  
Development  
Control**

- Residential, office and retail only
- Car and bus only
- Personalised support
- Traditional 'hard' interventions
- Low Emission Technology interventions
- Bus travel
- Offsetting

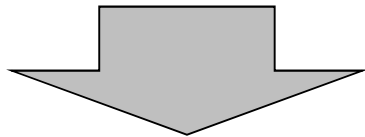
**=>40%  
reduction**



## Bottom up – LES Case Studies plus Low Emission Toolkit

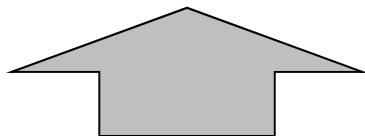
# Benefits Analysis

Top Down – National Emissions Projections



**Area-wide  
transport  
emissions  
management**

- Direct influence on own operations
- Indirect through policy and partnerships



**=> 20%  
reduction**

Bottom up – LES Case Studies plus Low Emission Toolkit

**Fleets**  
**30%  
reduction**

Pollutant	Est. total emissions from Council Vehicles (t/yr)	Reduction (t)	Damage costs avoided (/yr)
CO2	1,100,000	330,000	£16,500,000
Particles	100	31	£1,930,000
NOX	2,800	840	£705,000
		<b>Total:</b>	<b>£19.1 Million</b>

**Planning**  
**40%  
reduction**

Pollutant	Est. total emissions from New Development (t/yr)	Reduction (t)	Damage costs avoided (/yr)
CO2	740,000	296,000	£14,800,000
Particles	33	13	£818,000
NOX	800	320	£268,000
		<b>Total:</b>	<b>£15.9 Million</b>

**Areawide**  
**20%  
reduction**

Pollutant	Est. total emissions from all road transport (t/yr)	Reduction (t)	Damage costs avoided (/yr)
CO2	100,000,000	20,000,000	£1,000,000,000
Particles	21,000	4,200	£260,000,000
NOX	400,000	80,000	£68,000,000
		<b>Total:</b>	<b>£1.3 Billion</b>

# Implications

- Significant emission reductions can be achieved locally
  - Packages of complimentary interventions
  - Flexible action tailored to local circumstances
- Greatest benefits from area wide action
- Fleets and planning provide springboard

## Further work

- Developmental method – review & discuss
- Significant uncertainties – Reality check level of ambition? Equally, some assumptions may be conservative?
- More case studies, more evidence
- Costs?? Timescales??
- Linkages with concentration/health assmnt?

=> Defra AQ Grant Bid to develop approach, analysis and applications

# Key steps for Councils?

- Strengthen action plan focus on area-wide emissions reduction
- Identify priority zones (e.g emissions corridors)
- Improve integration of AQ and Carbon reduction
- Review systems and structures for joined up working between departments
- Monitoring and assessment protocols to support emission reduction activities
- Ongoing learning/sharing => opportunities from low emission practices elsewhere?

# Any Questions?

[www.lowemissionstrategies.org](http://www.lowemissionstrategies.org)

- Tools and Resources / Discussion Papers

[www.green-sphere.co.uk](http://www.green-sphere.co.uk)

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