



### **The importance of air quality**

Poor air quality is a pressing problem for the UK. The impacts of air pollution are estimated to cost the UK economy £9-£19 billion every year, a figure comparable to the economic cost of obesity<sup>1</sup>. The effect of poor air quality on health is estimated to result in 29,000 premature deaths in the UK each year<sup>2</sup>.

The UK faces fines of up to £300m a year after the European Commission launched legal proceedings against it for failing to reduce what it describes as 'excessive' levels of nitrogen dioxide (NO<sub>2</sub>). NO<sub>2</sub> is the component of nitrogen oxide (NO<sub>x</sub>) that is harmful to health and transport is the largest single contributor to NO<sub>x</sub> (46% of total emissions). A letter of formal notice was sent by the Commission in February 2014 to start proceedings against the UK.

Alongside NO<sub>2</sub>, particulate matter in the air is also a cause for concern. These tiny particles are breathed deep into the lungs and bloodstream, presenting significant health risks even at 'low' levels that are below European and national targets.

### **The opportunity to make a difference**

Within transport, road traffic is recognised as the biggest single contributor to nitrogen dioxide and particulate matter levels. Road traffic is at its most concentrated and congested in cities and these are also the places where people are most at risk of exposure to air pollutants. It therefore makes sense to target action at the city level where air quality issues are most acute and where the most significant impacts could be achieved if a coordinated package were to be implemented.

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<sup>1</sup> Defra (2010) Air Pollution: Action in a Changing Climate

<sup>2</sup> Committee on the Medical Effects of Air Pollutants (2010) The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom

One of the complexities of working to improve air quality is the large store of background pollution in most urban areas. Background pollution may include emissions from transport, power generation, farming and waste as well as from natural sources such as sea salt, dust and volcanic ash. These emissions can move considerable distances over regional, or even national, boundaries which can make it difficult to control air pollution in individual hotspots. Changes to road traffic at particular locations, for example, is likely to only affect a small proportion of the overall pollution in the air. To address background pollution, measures with a wider geographical influence are needed, such as the Low Emission Zone in London.

Whilst smaller scale measures may not lead to a major change in overall pollution levels, they may still achieve important reductions in air pollution when targeted at those communities most at risk of exposure to harmful emissions. An example of this would be action to reduce heavy traffic in a built-up residential area.

### Delivering clean air

A range of measures at national level could assist in tackling the UK's air pollution problem. Within a framework of a new cross-government air quality strategy, these centre on making flexible funding available for city regions to deliver the transformational air quality interventions that are required whilst maintaining strategic and operational dialogue with Government to achieve overall national goals.

#### Develop an overarching strategy for meeting European air quality standards with associated funding for delivery

A range of different Government departments and agencies have an interest in, or impact on, air quality including, most obviously, the Department for Environment, Food and Rural Affairs (Defra); Department for Transport (DfT); Department of Health; the Highways Agency and the Office for Low Emission Vehicles (OLEV). All have their own activities and, in some cases, funding streams, that affect air quality.

The actions of other, perhaps less obvious, departments will also have an impact on air quality. Planning regulations set by the Department for Communities and Local Government, for example, help to determine how car dependent communities are and therefore, potentially, how polluting.

There is a lack of coordination between the various departments with no sense of how they can work together towards shared objectives for improving air quality. All Government departments need to understand their role in tackling the issue.

To pull together the various strands of work and stakeholders, a cross-government, overarching strategy and framework (with appropriate funding) is needed, setting out

how the UK will meet European air quality standards. This is something that the Environmental Audit Committee also called for in their 2010 inquiry into air quality.

Such a document would provide shared objectives on air quality and a clear direction for national and local government – and other stakeholders – to work towards. It should clearly set out, and fairly allocate, the roles and responsibilities of these stakeholders. The causes of poor air quality are often beyond an individual authority's control. The responsibility for tackling air pollution should be shared accordingly across geographical and policy boundaries.

### Build in freedom for local authorities to tackle the specific air quality issues in their area

The causes of poor air quality will vary between areas. In some areas, industrial processes may be the main concern, in others, emissions from particular transport modes will be the focus, for example. The contribution of individual transport modes to emissions will also vary both within and between city regions.

Examples of the variety of actions already being taken on transport in the city regions can be found in ['Air Quality in the City Regions: A Transport Toolkit'](#).

Any national approach to tackling air pollution should take account of these variations and ensure that local authorities have the freedom to determine the areas and actions to be prioritised locally. The overarching strategy described above should provide the funding streams to enable each area to tackle their identified priorities.

### Make city regions the focus for air quality investment

It makes sense to target air quality investment in cities where air quality problems are most acute and the risks of people being exposed to, and harmed by, air pollution are highest. Indeed, the majority of air quality infractions are in urban areas.

In contrast to small scale funding streams which represent somewhat of a scattergun approach, significant investment at a city level could realise air quality benefits on a visible scale due to the volumes of journeys that could be affected. Due to normally significant background levels of air pollution in urban areas, relatively large (and potentially costly) interventions are required to affect a measurable change, further underlining the need for any air quality strategy to be adequately funded.

The importance of a city region focus was recognised in OLEV's recent announcement of £35m funding for cities committed to supporting a step change in ultra-low emission vehicle uptake. Impact on local air quality will be an important criterion in the evaluation of bids.

Whilst this funding pot represents movement in the right direction, further significant investment over the long term will be required to achieve a lasting effect on air quality. Greater certainty from Government over the long-term profile of funding would assist city regions and other stakeholders to plan packages of measures that will have a sustained impact.

### Establish structured and regular engagement with city regions on air quality

In tackling poor air quality in the city regions, it is important not to apply a 'one size fits all' approach. There needs to be more structured and regular engagement between key Government air quality stakeholders and city regions at both strategic and operational level. Every city will vary in terms of the main sources of pollution and problems with particular areas and vehicle groups. Dialogue is important to understand these issues and ensure cities have the flexibility to address them in a way that best meets local needs. As a starting point, we propose biannual meetings between city region transport authorities and OLEV.

As part of this engagement, national Government should support local government to join up thinking across policy areas so that all stakeholders are clear on the role they can play in addressing poor air quality. This would mirror work done at a national level as part of the overarching, cross government strategy for air quality described above.

### **Benefits for communities**

- **Longer, healthier lives:** air pollution is linked to heart and lung diseases; cancer; low birth weight and respiratory problems. Cleaner air means better public health.
- **A fairer society:** people that live in poorer households are more likely to be exposed to air pollution due to their greater chance of living close to busy roads. Tackling poor air quality will have particular benefits for these groups.
- **Safer, more liveable streets:** action to tackle air quality will often involve reducing the numbers of polluting vehicles on the road and cutting congestion. This will in turn lead to attractive, safe environments where people want to live, work and invest.
- **Economic growth:** less congestion means reduced business costs, improved productivity and greater access to markets and resources.

### Benefits for Government

- **Potential savings to the economy of between £9-19 billion a year<sup>3</sup>:** the amount that poor air quality is estimated to cost the UK economy annually.
- **Avoiding up to 29,000 premature deaths each year<sup>4</sup>.**
- **Further savings to the NHS:** better air quality could help prevent heart and lung disease; reduce the incidence of cancer; promote healthy birth weights; and prevent respiratory problems or the worsening of such conditions.
- **Potential to avoid significant European fines of up to £300 million a year and the reputational damage they entail.**
- **Clean, safe, attractive cities that draw in people and investment.**
- **Reduced carbon emissions:** measures that improve air quality tend to be the same as those that cut carbon (e.g. reducing congestion, encouraging walking and cycling, improving vehicle standards).

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<sup>3</sup> Defra (2010) Air Pollution: Action in a Changing Climate

<sup>4</sup> Committee on the Medical Effects of Air Pollutants (2010) The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom