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Health and Environment

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# Air Quality: Implementation of Defra policy

Barnes, J.H., Hayes, E.T., Chatterton, T.J. & Longhurst, J.W.S.

Air Quality Management Resource Centre,  
University of the West of England, Bristol, UK



University of the  
West of England

EPUK

Autumn Conference

24<sup>th</sup> October 2013

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# Overview

- Health impacts of air pollution
- EU legislation
- National legislation
- Local Air Quality Management
- Earlier reviews of LAQM
- Recent Defra consultation on LAQM review
- UWE response to consultation

# Health impacts of air pollution

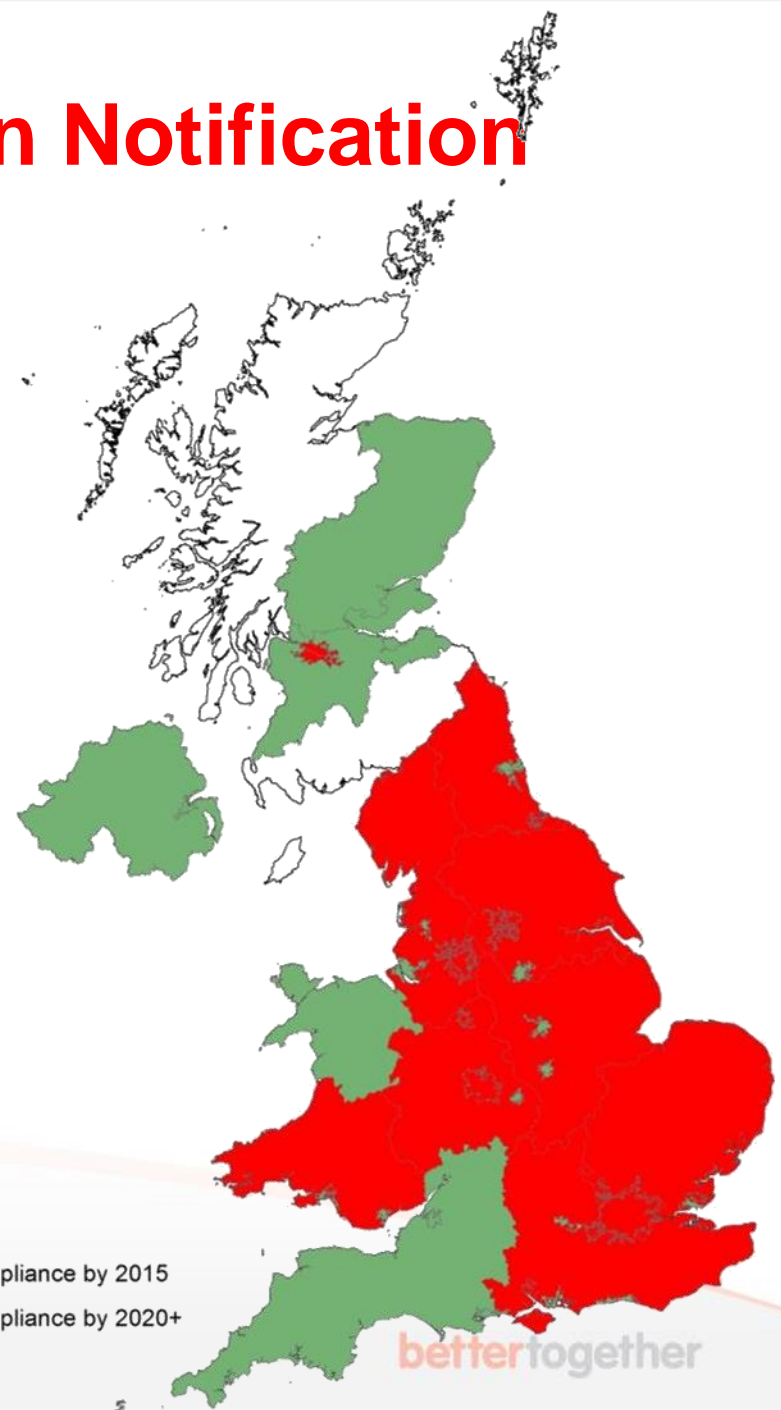
- Poor ambient air quality is projected to be the world's leading environmental cause of mortality by 2050, ahead of dirty water and lack of sanitation. OECD (2012) *OECD Environmental Outlook to 2050: the Consequences of Inaction*. 350pp.
- Health effects include: respiratory illness, asthma, allergenic illnesses, diabetes, heart disease, cancer, adverse pregnancy and birth outcomes and lowering of male fertility. WHO 2013, *Review of evidence on health aspects of air pollution – REVIHAAP Project*, Technical Report.
- The International Agency for Research on Cancer (IARC), a part of the WHO, has now classed air pollution in the same category as tobacco smoke, UV radiation and plutonium. IARC 2013, Scientific Publication No. 161 *Air Pollution and Cancer*, Eds: Kurt Straif, Aaron Cohen, and Jonathan Samet.
- In 2011, the Environmental Audit Committee noted that the costs to UK society from poor air quality are on a par with those from smoking and obesity, reducing life expectancy on average by 6 months at a cost of around £16 billion per annum. House of Commons Environmental Audit Committee Report, *Air quality: A follow up report*, Ninth Report of Session 2010-12, HC1024 <http://archive.defra.gov.uk/environment/quality/air/airquality/panels/igcb/documents/100303-aq-valuing-impacts.pdf>

# EU Air Quality Directive

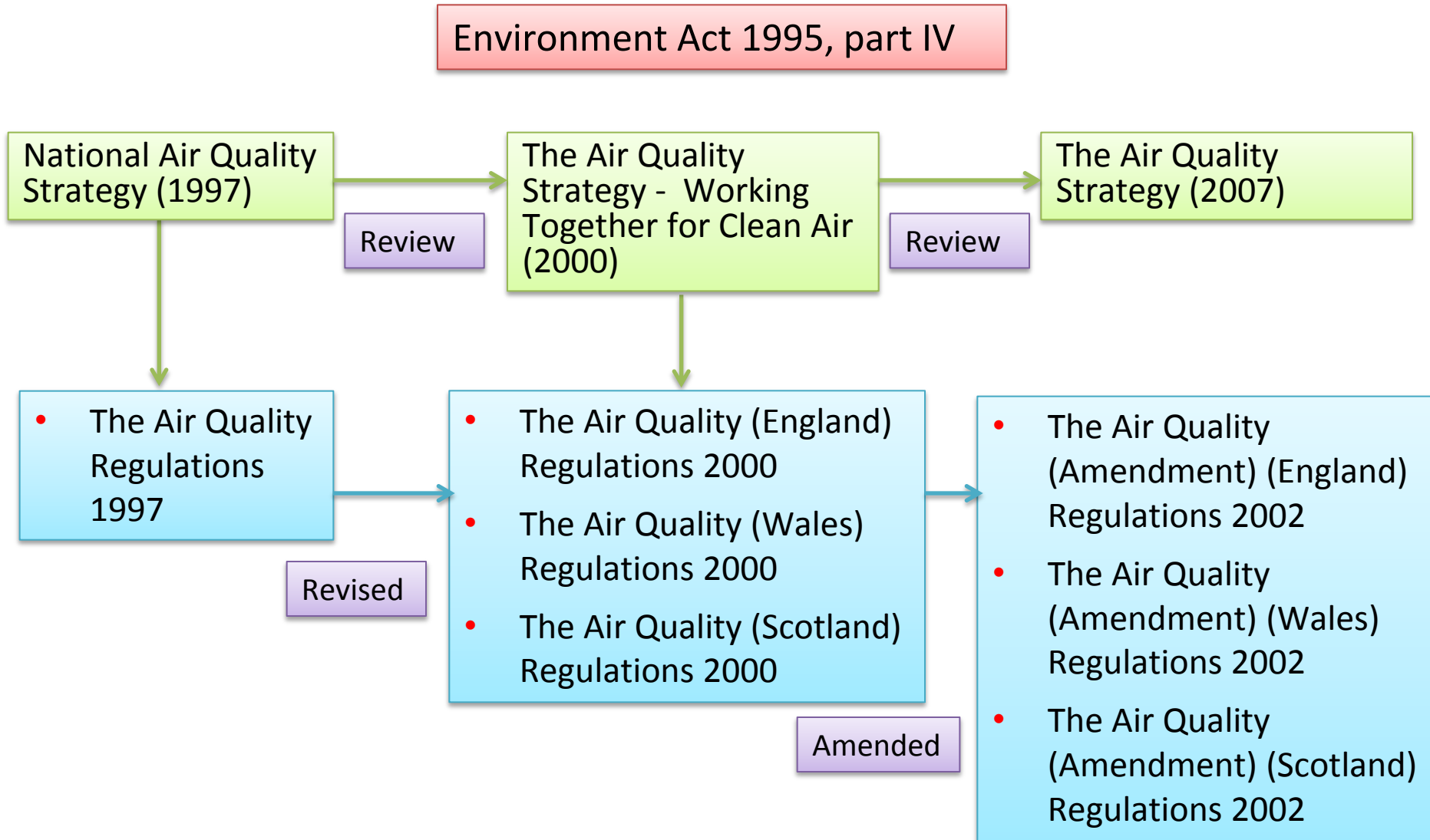
- Council Directive 96/62/EC on ambient air quality assessment and management implemented by Member States by May 1998.
- Member States assigned zones and agglomerations.
- Four daughter directives set health-based Limit Values are concentration component and averaging time.
- If limit values are exceeded, air quality improvement plan must be submitted to the Commission.
- Directive 2008/50/EC consolidated Directive 96/62/EC and three of four daughter directives.
- As of 11 June 2010, the Directive 2008/50/EC and the fourth daughter directive have been transposed into UK legislation by the Air Quality Standards Regulations 2010 (England), and equivalent legislation in the DAs.

# NO<sub>2</sub> Time Extension Notification

- September 2011 – Defra submitted Time Extension Notification (TEN) for compliance with NO<sub>2</sub> annual mean Limit Value to 1<sup>st</sup> Jan 2015 in 23 zones and agglomerations.
- 17 zones and agglomerations won't meet 2015 – High Court, the Court of Appeal and the Supreme Court agreed the government is in breach of the Directive but action referred to the European Court of Justice.
- TEN action plans relied heavily on the implementation of Low Emission Zones (LEZs) subject to Local Authority discretion.

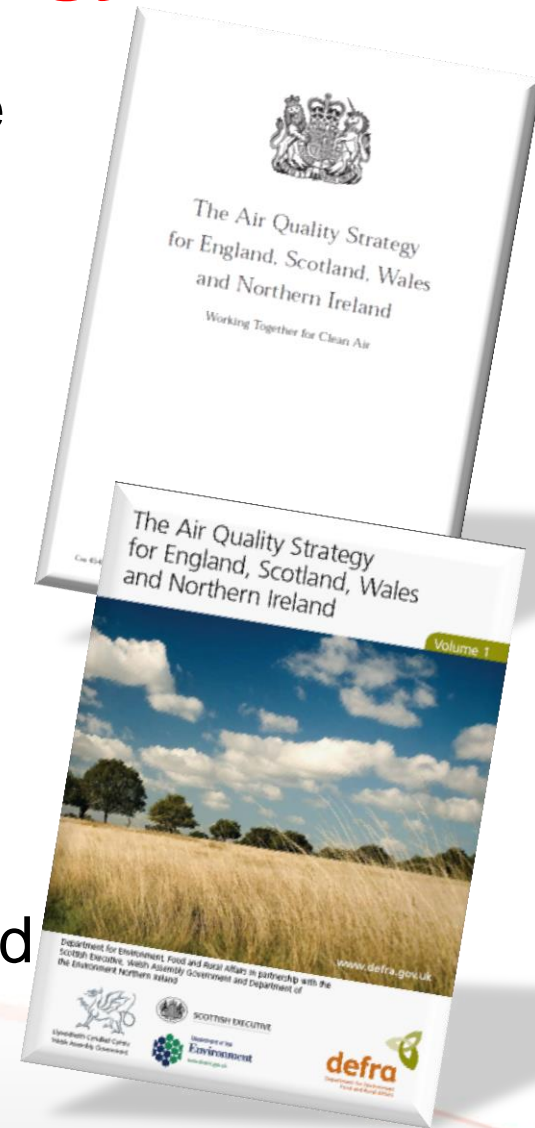


# UK Air Quality Management Legislation



# National air quality strategy

- In 1997 the UK Government published the first of three Air Quality Strategies presenting the national approach and setting out the Local Air Quality Management (LAQM) process to manage air pollution.
- Principle of subsidiarity: “Action should be taken to improve air quality at the most appropriate level, be it international, European, national or local”.
- LAQM role was to be in supplementing and “fine tuning” central policies at local hotspots where national measures would be too blunt or expensive.

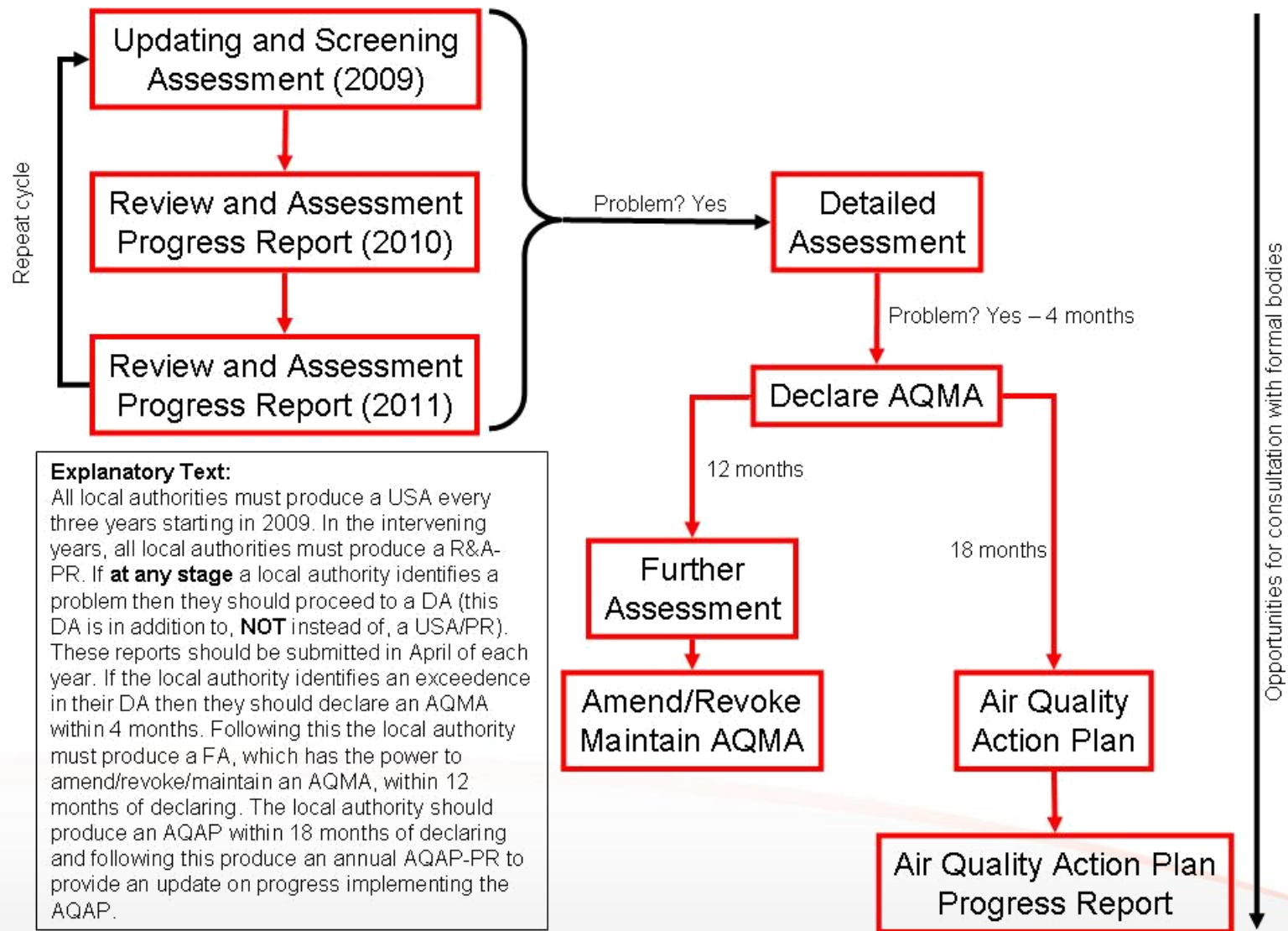


# Local Air Quality Management (LAQM)

- The UK Air Quality Regulations 1997 introduced Air Quality Objectives (AQOs) for LAQM, which were comparable with, but sometimes stricter than the EU Limit Values.
- Failure to achieve an AQO means the Local Authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP).
- Local Authorities required to *work towards* meeting the AQOs in their AQAPs as it was recognised that local air quality was not only a local issue.
- ~60% (238) UK Local Authorities declared AQMAs, primarily for NO<sub>2</sub> and PM<sub>10</sub> from traffic (2011).
- But as yet very few, if any, traffic-related AQMAs have been revoked on the basis of Local Authority measures implemented in AQAPs.

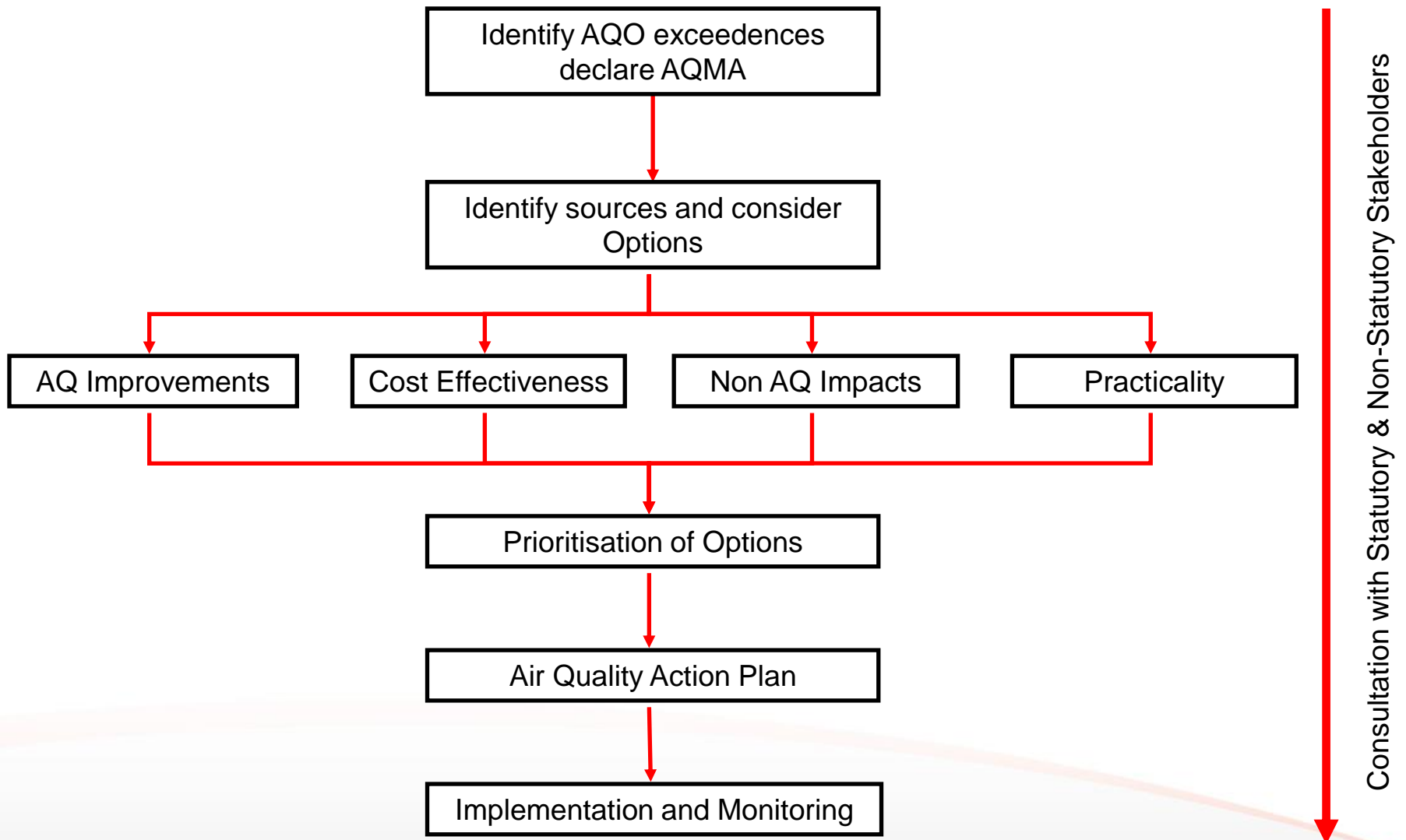


# LAQM Review & Assessment process

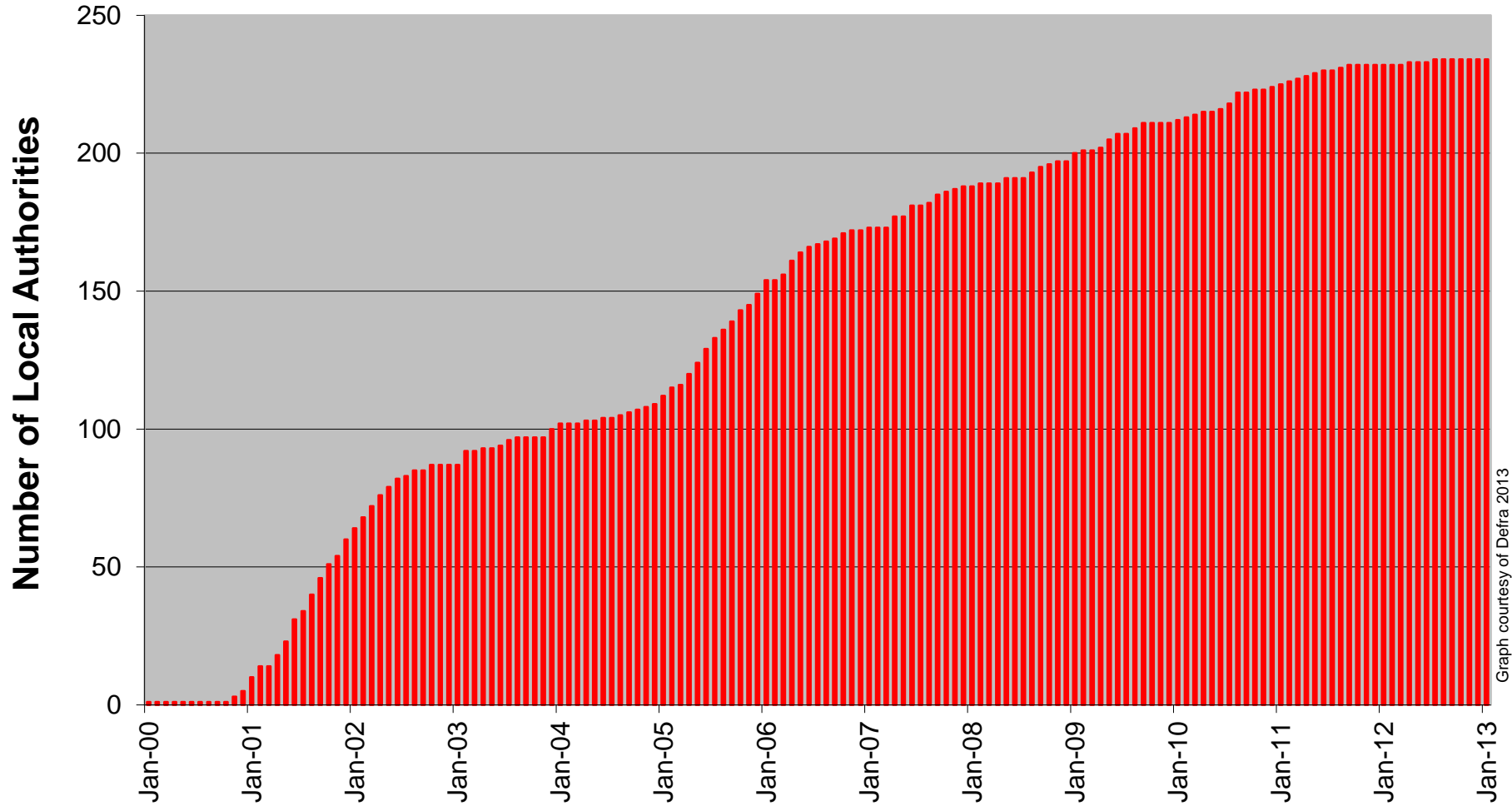


**Explanatory Text:**  
 All local authorities must produce a USA every three years starting in 2009. In the intervening years, all local authorities must produce a R&A-PR. If **at any stage** a local authority identifies a problem then they should proceed to a DA (this DA is in addition to, **NOT** instead of, a USA/PR). These reports should be submitted in April of each year. If the local authority identifies an exceedance in their DA then they should declare an AQMA within 4 months. Following this the local authority must produce a FA, which has the power to amend/revoke/maintain an AQMA, within 12 months of declaring. The local authority should produce an AQAP within 18 months of declaring and following this produce an annual AQAP-PR to provide an update on progress implementing the AQAP.

# LAQM Air Quality Action Plan process



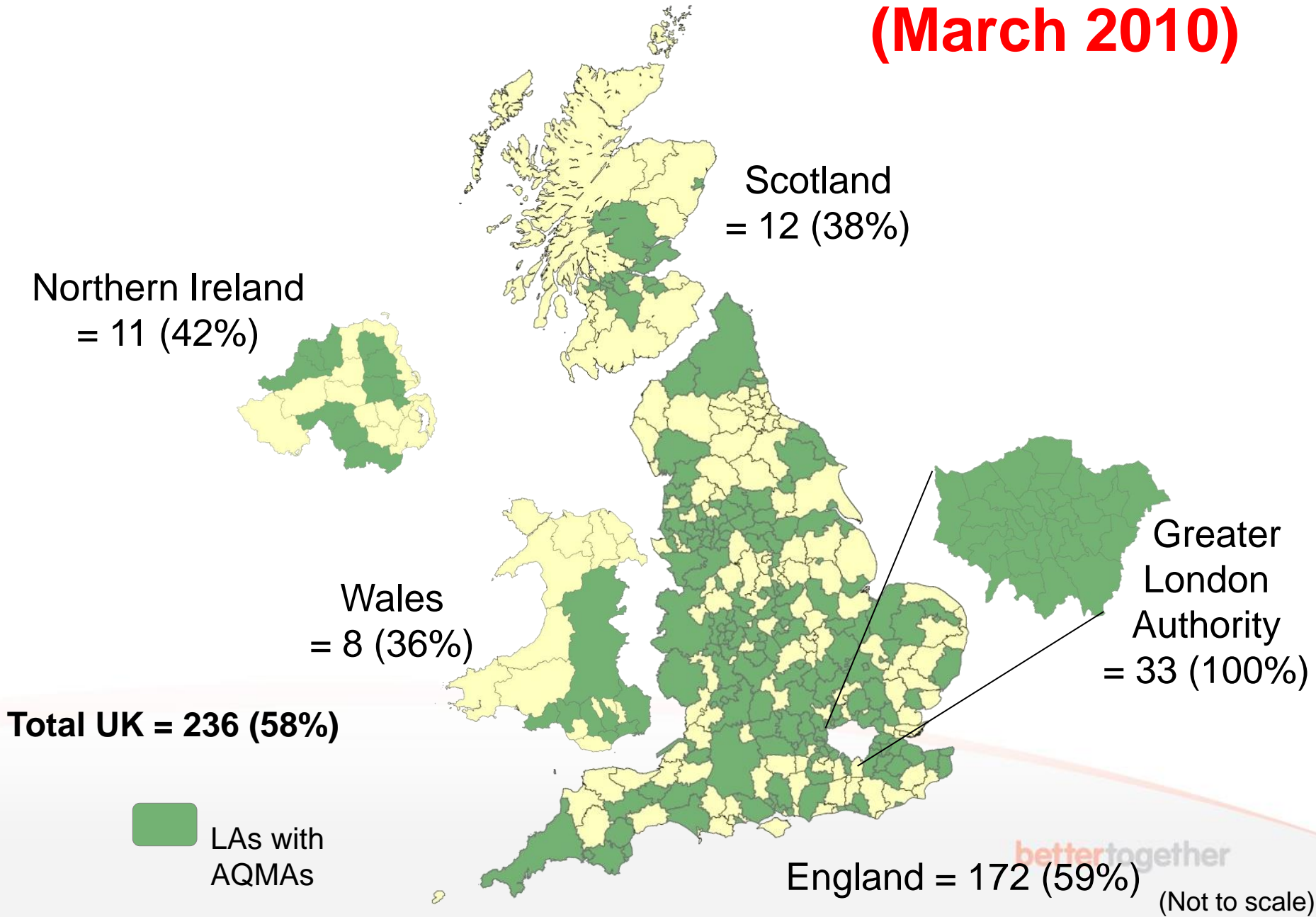
# Number of Local Authorities with AQMAs



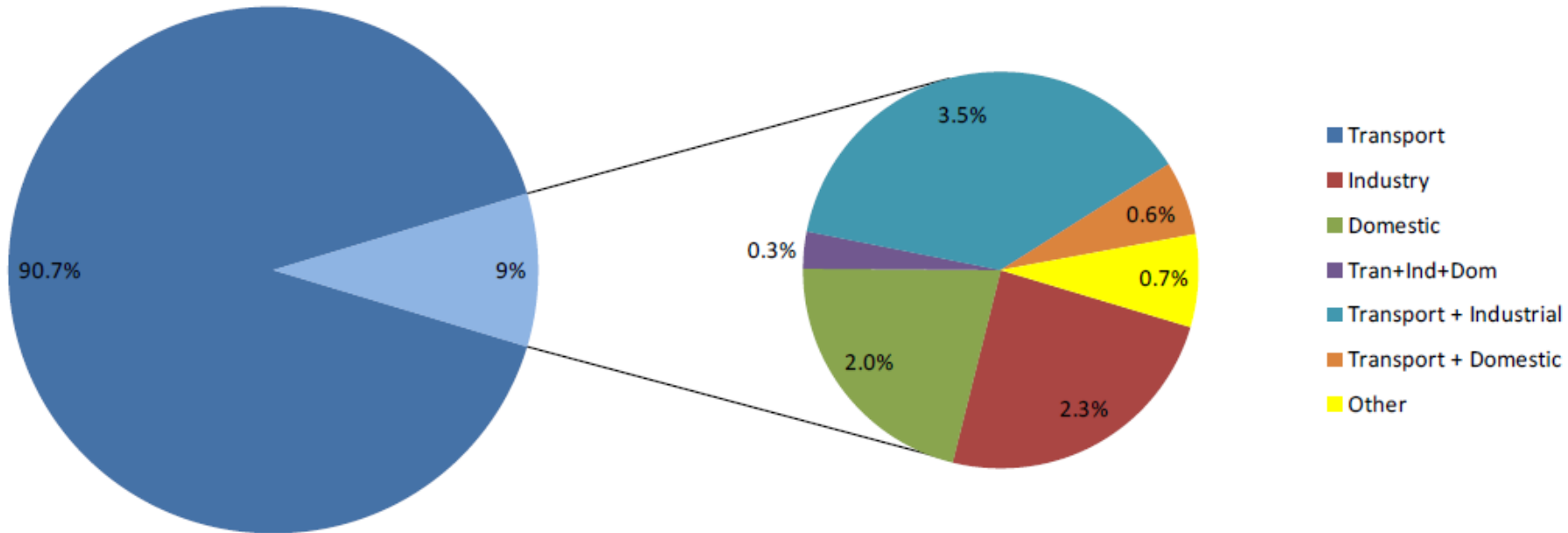
Graph courtesy of Defra 2013

- AQMAs plateauing but not reducing

# Local Authorities with AQMAs across UK (March 2010)



# AQMAs by source

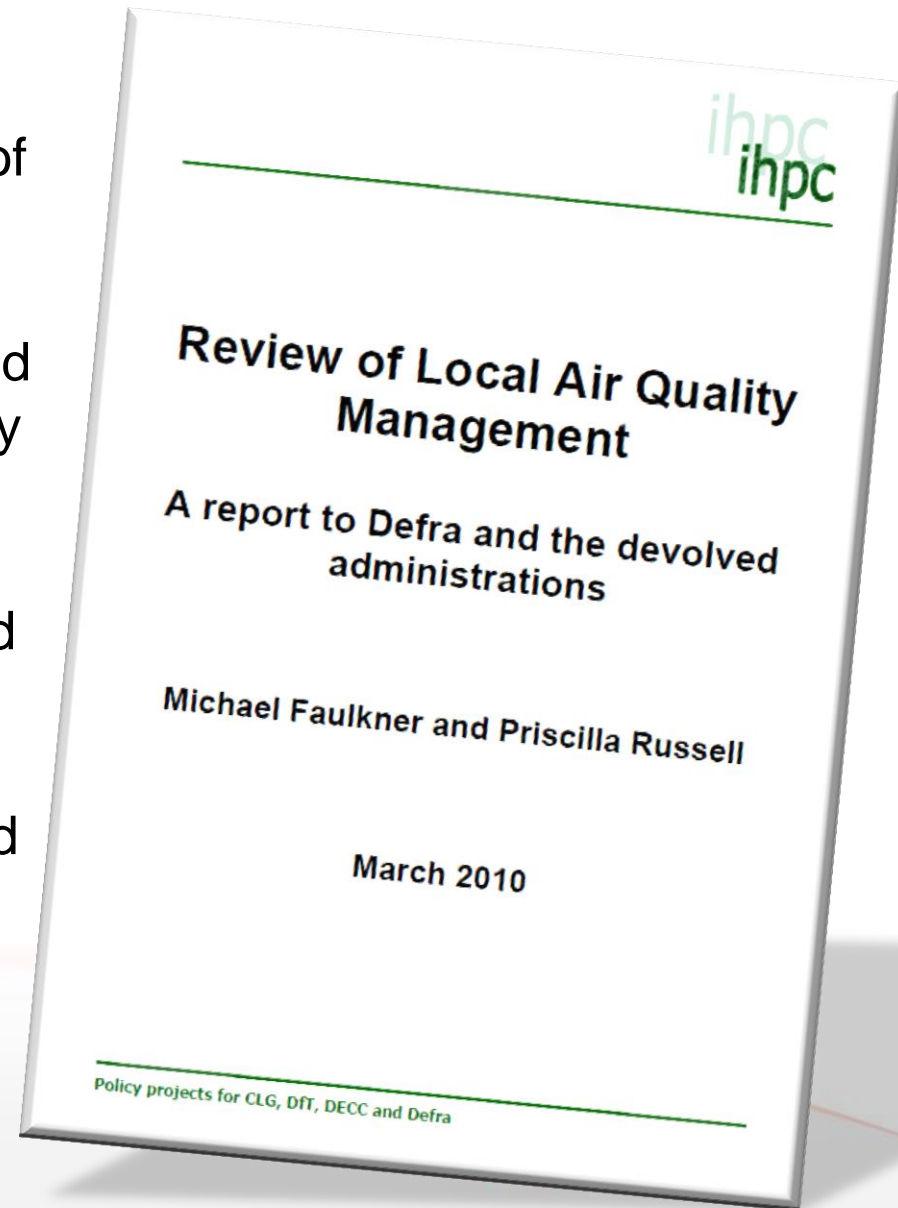


**Proportion of the UK's current Air Quality Management Areas resulting from various sources (as of July 2011)**

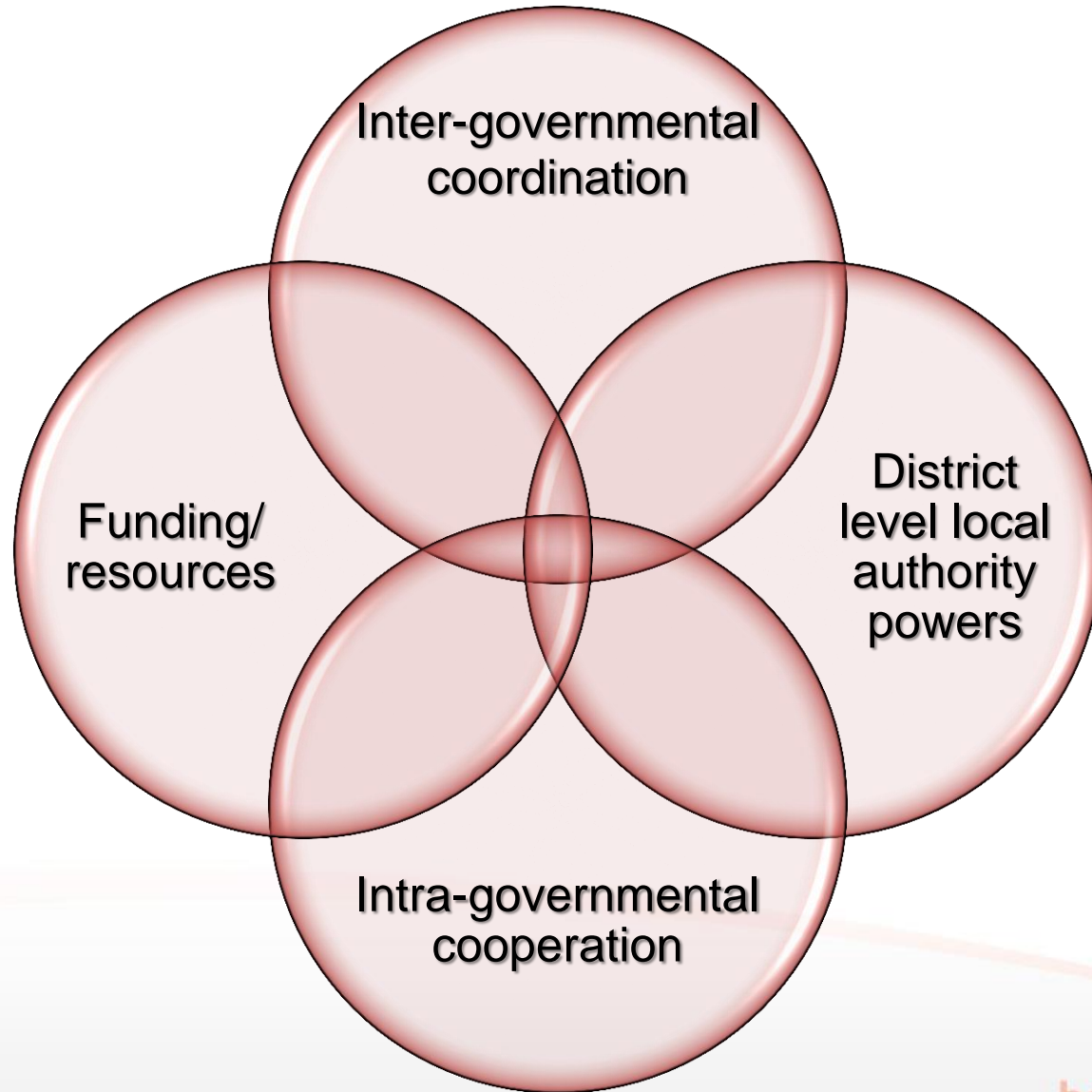
([http://uk-air.defra.gov.uk/library/annualreport/air\\_pollution\\_uk\\_2010\\_issue\\_2.pdf](http://uk-air.defra.gov.uk/library/annualreport/air_pollution_uk_2010_issue_2.pdf))

# LAQM Review 2010

- Defra commissioned in-house consultants to undertake a review of LAQM in 2010.
- AQMRC, UWE and Air Quality Consultants Ltd were commissioned to undertake a questionnaire survey of all UK local authorities.
- Response rate was 55% (239 LAs) and open responses were analysed using Grounded Theory methodology in NVivo 8.
- The report and results can be found on the Defra website <http://uk-air.defra.gov.uk/news?view=129>



# Barriers to Action Planning



# Environmental Audit Committee reviews

- House of Commons Environmental Audit Committee was highly critical of national approach to air quality management in its 2010 and 2011 reports:
- *“Many Government departments do not seem fully to understand how their policies affect air quality, the impact poor air quality has, and its cost to the economy. Awareness of the issue needs to be raised at all levels of government, and policies need to take greater account of air quality impacts.”*
- *“Awareness needs to be raised and behaviour needs to change if air quality targets are to be met. Transport causes the most exposure to harmful air pollutants, and air quality targets will not be met without a significant shift in transport policy. Local authorities need to do more to tackle poor air quality, and they must be given information on how to develop local air quality strategies.”* House of Commons Environmental Audit Committee, (2010). Air Quality: Fifth Report of Session 2009–10, 1
- *“The Government has failed to get to grips with this issue. Most of the measures set out in its response to our predecessors’ report are yet to be brought in.”* House of Commons Environmental Audit Committee, (2011) *Air Quality: A Follow-Up Report, Ninth Report of Session 2010–12*. Report number: 1. London: The Stationery Office Ltd.



# LAQM Review 2013

- Defra commissioned Air Quality Consultants/Aether to undertake another review of the effectiveness of Local Authority Air Quality Action Planning and future policy options for LAQM published June 2013; concluded that:
- Despite implementation of local air quality action plans by many local authorities, lack of quantification of measures made it difficult to assess their effectiveness in improving air quality
- No evidence of AQMA revocations on the basis of AQAP measures
- Failure of Euro standard vehicles to achieve expected emission reductions has undermined effectiveness of some measures
- Scale of air quality exceedences much greater than anticipated
- Review and Assessment could be simplified, but risk in reducing reporting requirements is that some local authorities may cease monitoring

# Defra LAQM consultation (England only)

- 6-week consultation formerly (but quietly!) published 12<sup>th</sup> July 2013
- >300 responses
- First stage of a two-stage consultation process
- Separate consultation on any necessary changes to regulations and guidance on air quality standards expected June/July 2014
- Sets out four aims and four options to meet them



# Context for 2013 LAQM Review

- The Red Tape Challenge
  - Focusing local air quality requirements on those that are essential to ensure compliance with EU targets.
  - Reviewing the role and responsibilities of local authorities to help ensure that action is taken by those with relevant powers to address the key issues (e.g. transport emissions).
  - Reviewing the role of transport measures in meeting air quality targets, including the consistency in approach across local areas. In taking this forward Defra will work closely with other relevant departments, especially the Department for Transport and Department of Health.
  - Reviewing the Clean Air Act and associated regulations to identify which measures are redundant and which can be modernised to help local authorities meet EU air quality targets and help reduce costs for businesses. The first merger of smoke control regulations will come into force in April.
  - Consolidating Air Quality Standards Regulations to simplify the regulatory landscape.

# Defra's proposed aims for improving local air quality management

1. Local action is focused on what is necessary to support air quality improvements to benefit public health and to work towards EU air quality standards
2. Local government and other stakeholders are clear on their roles and responsibilities and work together to improve air quality
3. Local authorities have simple reporting requirements with less bureaucracy and more time to concentrate on actions to improve air quality and public health
4. Local authorities have access to information about evidence based measures to improve air quality including on transport and communications

# Defra's proposed options

1. **Business As Usual with limited changes**
2. **Concentration on Action Planning and focused reporting**
3. **Alignment with EU requirements to meet air quality limit values**
4. **Separate local air quality management duties do not exist**

# Defra's proposed options

## Option 1: Business As Usual with limited changes

- Retain separate local air quality regulations .
- Maintain review and assessment reporting cycle, but remove the need to carry out Further Assessments.
- Review the need for continued assessment and reporting on objectives that have been met.

# Defra's proposed options

## Option 2: Concentration on Action Planning and focused reporting

- All of option 1
- Change focus from review and assessment to action planning.
- Reduced and more focused reporting

# Defra's proposed options

## Option 3: Alignment with EU requirements to meet air quality limit values

- All of Option 2 plus Local authorities no longer required to carry out detailed assessments or to make/amend AQMAs.
- Consolidate and amend Air Quality (England) and Air Quality Standards Regulations so that local authorities work towards compliance with EU air quality limit values and targets where there is scope for action at the local level.
- No reporting requirements on local hotspots outside of the national assessment of EU air quality standards but a stronger interest and reporting on local measures which help to improve air quality and bring us closer to compliance with EU air quality standards.
- Local authorities to focus on action planning and public health and report on measures taken to improve air quality and these are included in reports to EU on compliance where quantified.



# Defra's proposed options

## Option 4: Separate local air quality management duties do not exist

- No separate LAQM duties but local authorities would still have to take account of air quality when appraising transport and development proposals and policies.
- Provisions for LAQM in the Environment Act would be repealed along with Air Quality England Regulations.
- Air Quality Standards Regulations amended as per Option 3.
- No specific duties on local authorities to assess or report on air quality locally – greater reliance on national assessment.

# Devolved Administrations approach

- Scottish Government consulting on:
  - consolidation of legislation;
  - streamlining the review and assessment reporting system;
  - revising and strengthening the action planning process; and
  - considering the role of local authorities in meeting PM<sub>2.5</sub> obligations.
- The Scottish Government's view is that consolidating regulations would convey little improvement to LAQM, but simplifying LAQM reporting arrangements could help to free up time and resources which would be better focused on action planning.
- Welsh and Northern Ireland Governments are yet to consult...

# UWE response to Defra summary

- LAQM needs to be reinvigorated and its public health protection purpose restated and prioritised.
- The Air Quality Regulations need to be updated and aligned more explicitly with EU Limit Values.
- The Air Quality Strategy needs to be reviewed and updated redefining the contributions of national and local actors.
- Local Authorities need support and encouragement to implement Action Plan measures.
- Review and Assessment, the diagnosis of air quality problems or improvements, is an essential precondition for effective and targeted action to improve air quality, and its evaluation. It must therefore be retained although the current administrative arrangements could be improved.
- In support of public health improvements, Government (both national and local) needs to achieve greater internal coordination of departmental actions and to deploy these interventions more effectively.
- Local authority actions can contribute to meeting EU Limit Values, but the means by which this is reported needs careful consideration.

# Consolidating the national and local regs

- Differences in the pollutants, averaging periods and timescales for achievement between the Air Quality England Regulations and the Air Quality Standards Regulations, e.g. the 15-minute objective for SO<sub>2</sub>, PM<sub>2.5</sub>
- Discrepancies between the applicability of the EU limit values and national air quality objectives in terms of 'relevant public exposure'

# Responsibilities for AQ management

- A statutory duty to improve air quality on all local governments, regardless of tier, is necessary particularly for those departments whose policies may influence air quality – must be clear, achievable and enforceable, and must be upheld by national departments, e.g. DfT
- Research has shown disjuncture between Environmental Health and Transport departments' attitudes to air quality management, with many Transport departments treating air quality as a tick box exercise in LTPs
- In order to ensure roles and responsibilities are explicit, a revised national air quality strategy is required

# Need to retain Review and Assessment

- The presumption that local authorities' Review and Assessment activities are the limiting factor in implementing local air quality Action Plans is flawed. Many factors undermine the effectiveness and efficiency of Action Planning. More influential factors include lack of statutory requirement to achieve the air quality objectives which undermines political will to rate air quality in relation to other political pressures
- Vital to retain a statutory requirement for local reporting on air quality in order to ensure continued local monitoring. Without local monitoring, there is no accurate measurement of local concentrations, and no continual trend data against which to assess the implementation of local measures to reduce pollution or to assess the public health impact
- National monitoring and modelling as reported to the EC is unable to adequately capture local hotspots that local authority monitoring has identified
- Detailed and up-to-date air quality information is also necessary when challenging new polluting developments
- Action taken at a local level should be reported to the EU, but so should locally-measured concentrations

# Need to retain AQMAs

- AQMAs must be retained as basis for development control. AQMAs act as the trigger for identification of developments that may require an air quality assessment and provide some degree of protection against developments that may worsen air quality or introduce exposure at these locations
- AQMA is often major signifier of institutional recognition that an air quality problem exists. At the point of declaration it often becomes much easier for cross-departmental communication, and appropriate allocation of resources to occur

# Access to information

- Quantifiable evidence for implementation of measures should be shared to support local authorities producing Air Quality Action Plans
- Likewise, any data/tools devised for one local authority that may be applicable in others should be made more widely available



# Summary

- Understanding of health effects of air pollution is growing
- National and local exceedences of air quality limit values and objectives are widespread and not decreasing
- LAQM Action Planning faces challenges in reducing air pollution
- Defra propose to remove need for local reporting (monitoring) and AQMAs to focus on Action Planning
- Widespread opposition to proposals due to
  - inability of national monitoring and modelling to capture local concentrations,
  - need for AQMAs to flag up air quality for transport planning and development control, and
  - an absence of national approach to improve air quality



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**Thank you for your attention.**

**Any questions?**