



Mapping EU Regulatory Instruments and Funding

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Overview

- Air Quality Consultants and Aether undertaking a research project: *Mapping Regulatory Instruments and Funding* (Action 2)
- Objectives:
 - map existing EU air quality legislation
 - identify missing or conflicting policy instruments
 - identify and evaluate community funding sources to improve air quality

Staged Process

Stage 1 Scoping Exercise

- Review Directives and other regulations
- Identify pollutants/sources not regulated at EU level
- Identify legislation/policies etc. that increase pollution
- Identify potential funding sources

Stage 2 Detailed Analysis

- Undertake a more detailed analysis for the most important pollutants and sources identified in Stage 1 and make specific recommendations to rectify deficiencies

Stage 3 Case Studies

- London and Milan: use outputs of Stages 1 & 2 to identify why cities still exceed EU limit values

Observations

Air quality is a mature policy area:

- deficiencies can be identified but major “gaps” are unlikely
- no “silver bullet” to resolving air quality problems in cities

The challenges associated with Euro standards are well documented elsewhere

- this project recognises the issues
- but focuses attention on other areas less well understood

Pollutants not controlled

- Little or no regulation of components of PM (e.g. black carbon). Black carbon also an important Short Lived Climate Pollutant
- Little regulation on ultrafine particles
- NO_x emissions from vehicles are regulated but increasing concerns about Euro 6 technologies, especially primary NO_2 . Currently no regulation on f- NO_2 emissions

Legislative/source gaps

- Legislation: entire raft of policies that affect air quality that are covered at the national/regional levels e.g. fiscal policies, transportation, land-use planning, energy etc.
- Sources which are not fully controlled include:
 - Emissions from space heating and power (below MCPD)
 - Emissions from brake & tyre wear
 - Emissions from construction sites (other than where NRMM are controlled)
 - Emissions of ammonia from less intensive farming operations (other than via NEC)
 - Shipping (other than S content of fuel) – lack of international standards for shore-side electrical power
 - Mobile refrigeration units

Legislation/policies that negatively impact pollution

Issue	Impact/Cause
Increased dieselisation	Increase in PM/NOx emissions. Fiscal incentives for uptake of diesel cars to reduce CO ₂ emissions
Increased biomass combustion in cities	Carbon and renewable energy targets at EU and national levels
Urban traffic congestion	Could be reduced via strong, long-term planning and transport provision
Local infrastructure development increase emissions and exposure	Failure of planning decisions to adequately consider air pollution. Investment infrastructure. Priority to economic development
Secondary PM driving pollution episodes in cities	Failure of EC and national measures to control secondary precursors, in particular, ammonia

Potential funding sources

- Funding sources to support air quality projects at the city scale are available through:
 - General climate and energy efficiency improvement actions – with consequential air quality benefits
 - Investment gaps, innovation and private financing
 - Network and capacity building
 - Academic research

Priorities for Stage 2

- In discussion with the UP, the following topics were identified for further investigation:
 - **Strategic Planning:** identify positive examples of where national policy and local actions have linked to deliver AQ improvements, and explore how this relationship could be strengthened through influence of the EC
 - **Effective Funding:** examine identified funding streams and assess relevance to air quality, and the ease with which they can be accessed
 - **Primary PM emission control:** examine ways in which national, regional or local measures could be encouraged/facilitated to take action on local primary PM emissions, outside of limit value compliance

Strategic Planning

- Improve reporting of actions by MS. Expand list of “measures or projects” in Annex XV(A)(8) to facilitate action by cities, and include in information required for National Plans
- EC to develop and hold a register of local scale actions to encourage sharing of best practice and comparative analysis
- EC to develop guidance on the evaluation of local scale actions
- MS and city administrations encouraged to evaluate their actions and to openly report successes and failures (possibly on an anonymous basis)

Effective funding

- Overall lack of programmes primarily dedicated to funding of projects aimed at air pollution
- Whilst there are numerous assessments of overall programme efficacy, including funding accessibility, are available for funding sources such as LIFE, INTERREG, EIB and Horizon 2020, there are no specific reviews on the impact on air quality
- Where assessments of air quality benefits are available, they are qualitative in nature
- Improvement of application guidance could reduce the overall administrative burden (on both funding bodies and applicants)
- Some programmes (e.g. LIFE) describe limited uptake in EU and MS policy-making – representing an opportunity
- Funding bodies should play a more active role to facilitate the dissemination and use of project outcomes in EU and national policy making

Primary PM Emission Control

- Adverse effects on health of exposure to particulate matter are well documented. No safe level of exposure or a threshold below which no adverse effects occur
- LV for PM_{2.5} is not widely exceeded across the EU, but 80% of population in WHO European region lives in cities where concentrations exceed the WHO air quality guideline
- Clean Air Policy Package for Europe sets out a vision for no exceedances of the WHO guidelines by 2030
- Apportionment of source emissions to urban, anthropogenic PM_{2.5} concentrations is an important factor in determining control strategies. Secondary Inorganic Aerosol (SIA) is the major contributor to urban PM_{2.5}, but arises from sources largely outside of urban areas, and there is little that city administrations can do to control it

Primary PM Emission Control

- Measures can be implemented at the city level to control primary PM – all of which would be beneficial to public health – even where LVs are not exceeded.
- Measures such as DPF have been very successful in reducing primary PM emissions, but there are many other important sources such as NRMM, standby/emergency diesel generators, HGV refrigeration units, space/biomass heating, emissions from construction sites and shipping (hoteling) that can be targeted by local actions
- Whilst Article 12 of the 2008 Directive requires MS to “endeavour to preserve the best ambient air quality”, the reporting requirements (in Article 24) make no provision for communicating this. There is no driver for continual improvement.

Primary PM Emission Control

- Recommended that:
 - A requirement be placed on MS to report on an annual basis what measures are being taken in agglomerations (>100K) to improve local air quality conditions and specifically with regard to PM. This would be subject to public scrutiny and encourage/facilitate actions at local administration levels
 - MA and local administrations be encouraged to adopt a continuous improvement approach to primary sources of PM, taking action wherever possible

Stage 3 Case Studies

- UP has selected London and Milan for the case studies
- Questionnaire is currently being compiled. This will be used by members of the UP in other cities as well



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