

Air quality across Europe: Progress towards limit value attainment and outstanding issue

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outline

Overview of Air Quality legislation

Air quality in Europe

Postponement & Enforcement

Review of strategy on air pollution

Overview of Air Quality legislation

- **Directive 2008/50/EC** of 21 May 2008 on ambient air quality and cleaner air for Europe (AAQ Directive) that entered into force on 11 June 2008

AAQ Directive foresees review in 2013
and possible merger with 4thDD

- **Directive 2004/107/EC** of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air – the 4th Daughter Directive(4thDD)

4thDD foresees review by 2010

Overview of Air Quality legislation

➤ AAQ Directive:

- ➔ Merged the previous framework and daughter directives into a single directive (except for the fourth daughter directive)
- ➔ No change to existing air quality objectives (i.e., NO₂, PM₁₀, SO₂, O₃, CO, Pb, benzene)
- ➔ New air quality objectives for PM_{2.5} including the limit value and exposure related objectives, i.e., exposure concentration obligation and exposure reduction target

Overview of Air Quality legislation

➤ **AAQ Directive (continuation)**

- ➔ Possibility to discount natural sources of pollution when assessing compliance against limit values
- ➔ Possibility for time extension of three years (PM₁₀) or up to five years (NO₂, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.

➤ **4th Daughter Directive**

- ➔ Set target values for As, Cd, Ni and PAH's
- ➔ Set only monitoring requirements for Hg

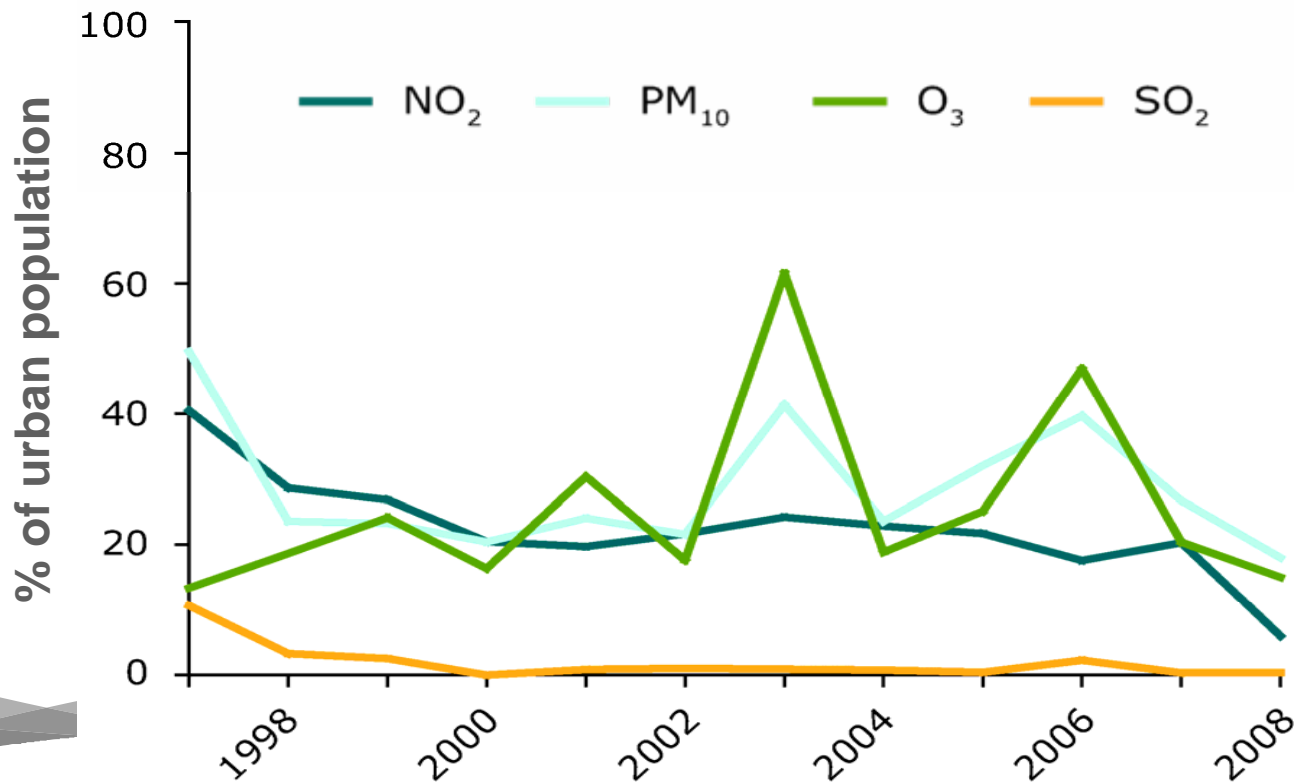
Overview of Air Quality legislation

<i>Pollutant</i>	<i>Concentration</i>	<i>Averaging period</i>	<i>Legal nature and deadline</i>	<i>Permitted exceedences each year</i>
Fine particles (PM _{2.5})	25 µg/m ³ ***	1 year	Target value by 01.01.2010 Limit value by 01.01.2015	n/a
Sulphur dioxide	350 µg/m ³	1 hour	Limit value by 01.01.2005	24
	125 µg/m ³	24 hours	Limit value by 01.01.2005	3
Nitrogen dioxide	200 µg/m ³	1 hour	Limit value by 01.01.2010	18
	40 µg/m ³	1 year	Limit value by 01.01.2010	n/a
PM ₁₀	50 µg/m ³	24 hours	Limit value by 01.01.2005	35
	40 µg/m ³	1 year	Limit value by 01.01.2005	n/a
Lead (Pb)	0.5 µg/m ³	1 year	Limit value by 01.01.2005	n/a
Carbon monoxide	10 mg/m ³	Max daily 8-hr mean	Limit value by 01.01.2005	n/a
Benzene	5 µg/m ³	1 year	Limit value by 01.01.2010	n/a
Ozone	120 µg/m ³	Max daily 8 hour mean	Target value by 01.01.2010	25 days averaged over 3 years
Arsenic (As)	6 ng/m ³	1 year	Target value by 31.12.2012	n/a
Cadmium (Cd)	5 ng/m ³	1 year	Target value by 31.12.2012	n/a
Nickel (Ni)	20 ng/m ³	1 year	Target value by 31.12.2012	n/a
Polycyclic Aromatic Hydrocarbons	1 ng/m ³ (Benzo(a)pyrene)	1 year	Target value by 31.12.2012	n/a

Air quality in Europe

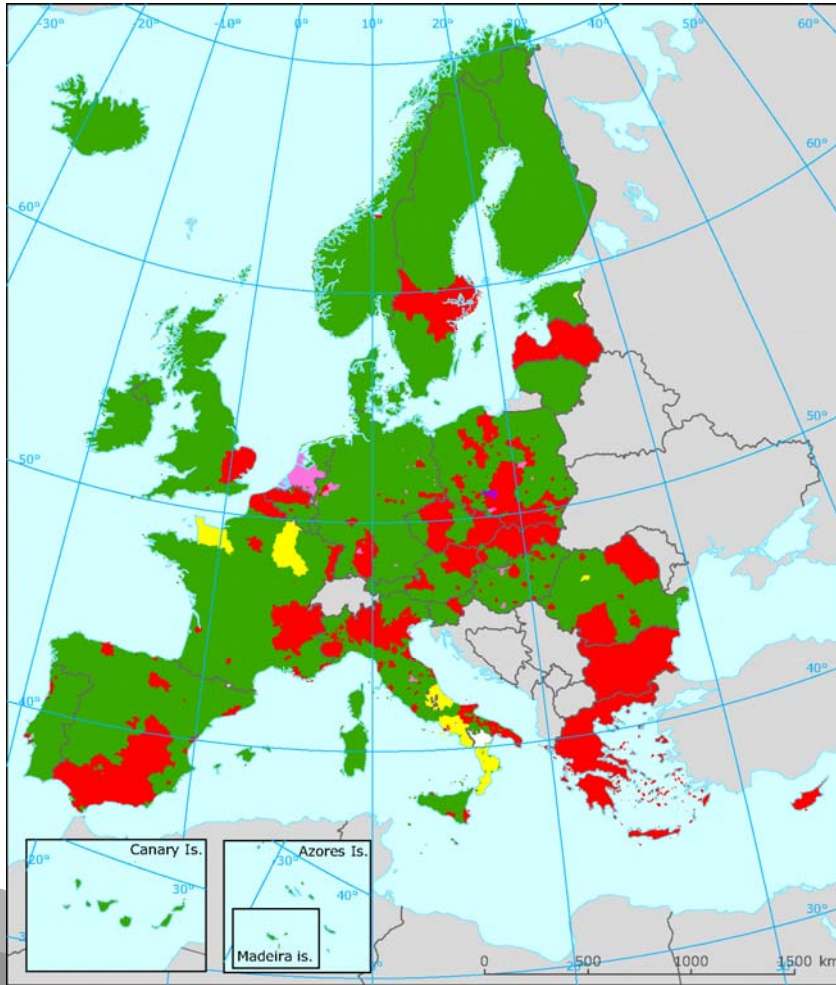
- Population Exposure -

Percentage of urban population exposed to pollutant concentration levels exceeding selected limit/target values, EEA member countries, 1997-2008

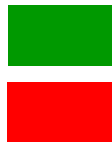
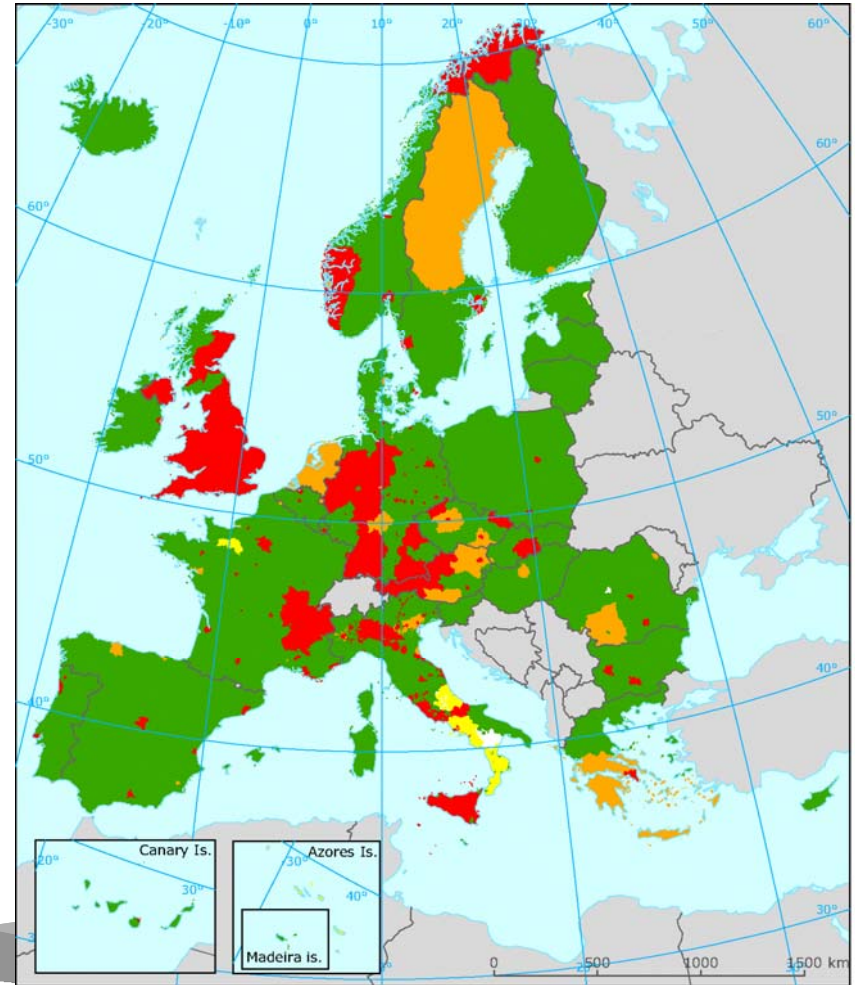


Air quality in Europe

PM₁₀ daily limit value exceedances in 2009



NO₂ annual limit value exceedances in 2009



≤ limit value

> limit value



Zone designated, data missing



Limit value - margin of tolerance



environment
Source: EEA, Copenhagen

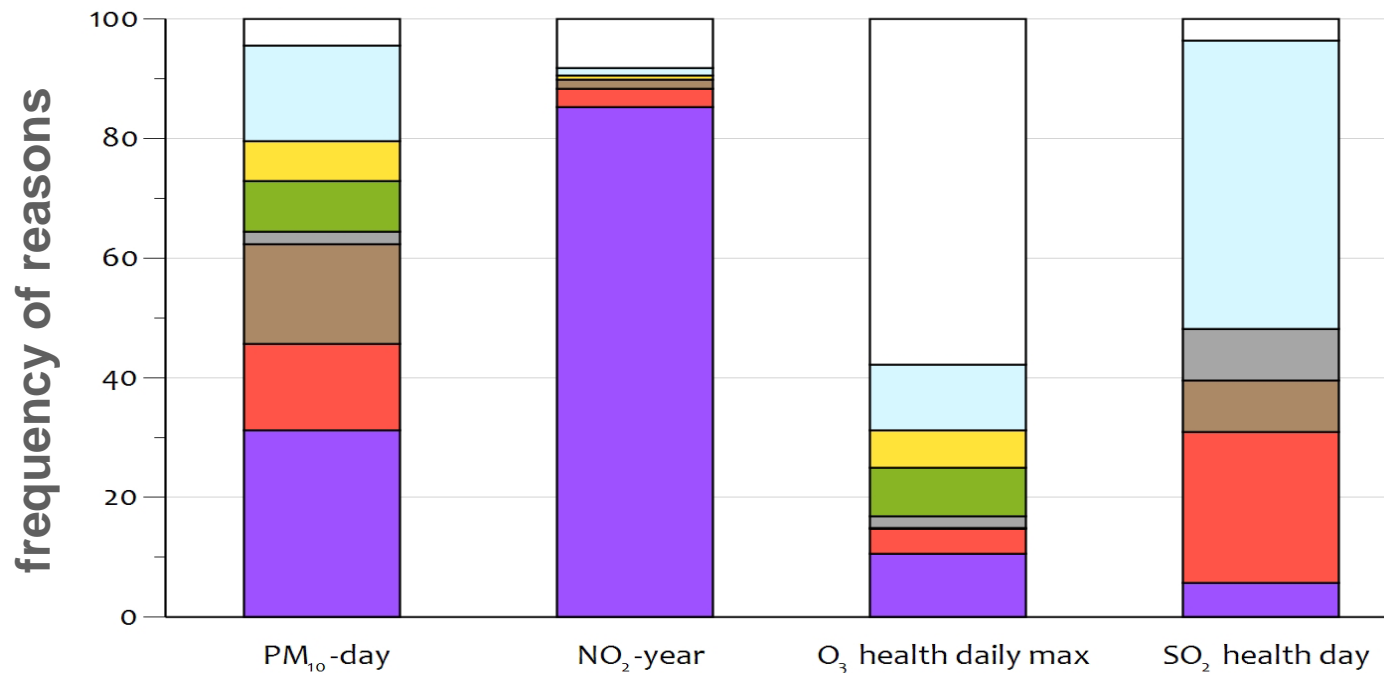
Air quality in Europe

Preliminary data for 2010 shows that:

- approximately 40% of the EU's population was potentially exposed to ambient air concentrations of fine and coarse particulate matter (PM₁₀) in excess of the EU daily limit value set for the protection of human health;
- and approximately 45% of the EU's population was potentially exposed to ambient air concentrations of NO₂ in excess of the annual limit value set for the protection of human health

Air quality in Europe

Main reasons for exceedances of LVs (& MOT) in 2008



- not indicated
- other than indicated
- long range transport
- natural
- accidental industrial emission
- domestic heating
- local industry and power generation
- local traffic

Postponement & Enforcement

- **Postponement of attainment deadline for limit values**
 - ➔ From 1.1.2005 to 11.6.2011 for PM₁₀
 - ➔ From 1.1.2010 to 1.1.2015 (latest) for NO₂ and Benzene
- **Conditions for postponement**
 - ➔ Appropriate measures have been taken to achieve compliance by the initial attainment date, *i.e.*, 1.1.2005 or 1.1.2010,
 - ➔ Compliance with limit values will be achieved by the new deadline,
 - ➔ All notifications must be accompanied by an air quality plan,
 - ➔ PM₁₀: exceedances must be due to transboundary air pollution, adverse climatic conditions, site specific dispersion characteristics

Postponement & Enforcement

- **Postponement of attainment deadline for PM_{10}**
 - ➔ Member States (MS) made extensive use of time extension possibilities for PM_{10} (from 1.1.2005 to 11.6.2011)
 - ➔ 31 Commission Decisions covering 332 zones in 19 MS: daily and/or yearly PM_{10} exceedances
 - ➔ The Commission objected to time extension in 228 zones (68%)
 - ➔ No objections were raised for requests in 63 zones (18.9%).
 - ➔ 133 zones (40%) became compliant before Commission's decision

Postponement & Enforcement

- **Postponement of attainment deadline for NO₂**
 - ➔ Notification from 15 MS covering 186 zones
 - ➔ 16 zones in 6 MS are already covered by the NO₂ Decisions (CZ, NL, SK, PL, UK – Gibraltar, DK)
 - ➔ No objection were raised for request in 10 zones
 - ➔ The Commission objected to time extension in 6 zones because the 2nd condition was not sufficiently substantiated
 - ➔ Compliance was reached on one zone
 - ➔ under assessment the notifications from 13 Member States covering 172 zones

Postponement & Enforcement

- **Postponement of attainment deadline for benzene**
 - ➔ 1 zones in one MS (PL);
 - ➔ objection was raised for 1 zone in 1 Member State because none of the conditions was sufficiently substantiated
 - ➔ The re-notification is presently under assessment

Postponement & Enforcement

➤ Infringement procedures:

- ➔ PM₁₀ – 19 MS – they are at different stages in the process (letter of formal notice, reasoned opinion etc)
- ➔ for SO₂ – 2 MS
- ➔ for NO₂ – compliance with the LV from 1.01.2010 – no legal action taken at this stage

Review of strategy on air pollution

The Collège Orientation Debate (January 2011):

- Confirmed review of EU Air Quality Policy for 2012/2013
- Include review of NEC directive
- Immediate action in specific policy areas (sulfur in shipping fuels, vehicles and non-road emissions, international negotiations eg. Gothenburg Protocol but also energy, cohesion, agriculture, research)
- Co-operation with Member States, assisting in achieving compliance (not stopping infringements)
- Co-benefits with climate change / Europe 2020 agenda

Review of strategy on air pollution

Scope:

- Review of current air quality legislation (reasons for non-compliance)
- Article 32 of AAQ Directive:
 - ➔ Review by 2013 of PM_{2.5} and, as appropriate, other pollutants
- Article 8 of the 4th Daughter Directive:
 - ➔ Review of heavy metals (As, Cd, Hg, Ni) and PAHs target values (trends, effects, exposure, measurement, measures, etc.)
- Article 10 of Directive 2001/81/EC (NEC Directive)
- Simplification / smart regulation / streamlining

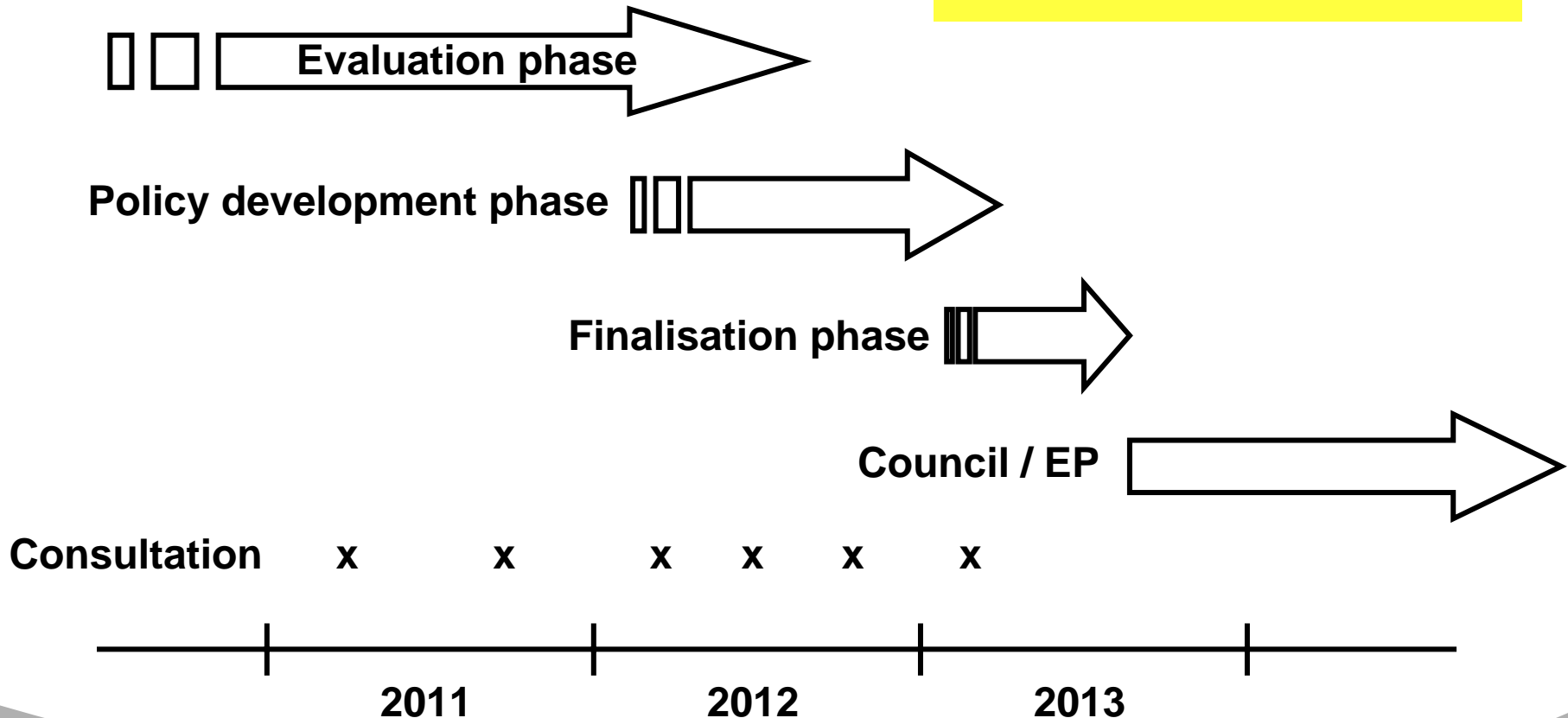
Review of strategy on air pollution

Consultation and inputs foreseen from:

- Ambient Air Quality Committee
- Stakeholder group(s)
- relevant international organisations (e.g. WHO, CLRTAP, etc.), existing fora and networks
- dedicated workshops, projects and studies
- on-line (public) consultations
- inter-service group and DG ENV contact group

Review of strategy on air pollution

Process and timetable



Review of strategy on air pollution

Stakeholder AQ Expert Group

- A Stakeholder Expert Group has been established as a centrepiece of the consultation process
- First meeting took place on 6-7 June 2011
- Around 100 experts participated from:
 - ➔ EU Member States
 - ➔ third countries
 - ➔ international organisations
 - ➔ industry and environment stakeholders
 - ➔ EU bodies/COM services
- Presentations and documents from the meetings of the Stakeholder Expert Group are publicly available through a dedicated CIRCA library

Review of strategy on air pollution

Public consultation:

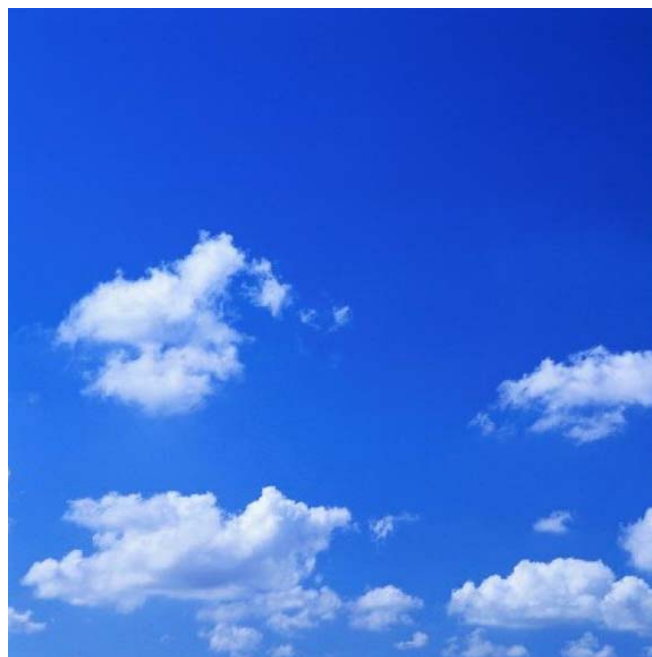
- First public consultation took place between 30 June and 15 October 2011
- All interested parties were invited to share their views on the best way to improve the EU's air quality legislation.
- Consultation had two parts – a short questionnaire for the general public and a longer section for experts and practitioners
- Results are being evaluated and will be presented at the next Stakeholder meeting foreseen for 19 January 2012

Review of strategy on air pollution

On-going support activities:

- Short term action plans (implementation)
- Review requirements Art 32 of AAQ Directive and Art 8 of the 4th Daughter Directive
- Scenarios and impacts (baseline, maximum, options, costs, benefits)
- Cooperation with WHO on new scientific evidence for health effect
- Contributions from JRC, EEA, R&I, others

Looking forward to an interesting conference...



Thank you!