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**Thematic Strategy on Air Pollution**

**Directive on ambient air quality  
and cleaner air for Europe**

**Implementation**

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# Content

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- **CAFE & Thematic Strategy on Air Pollution**
- **New Air Quality Directive**
  - **Implementing Provisions**
- **Other Activities**
- **Implementation issues**



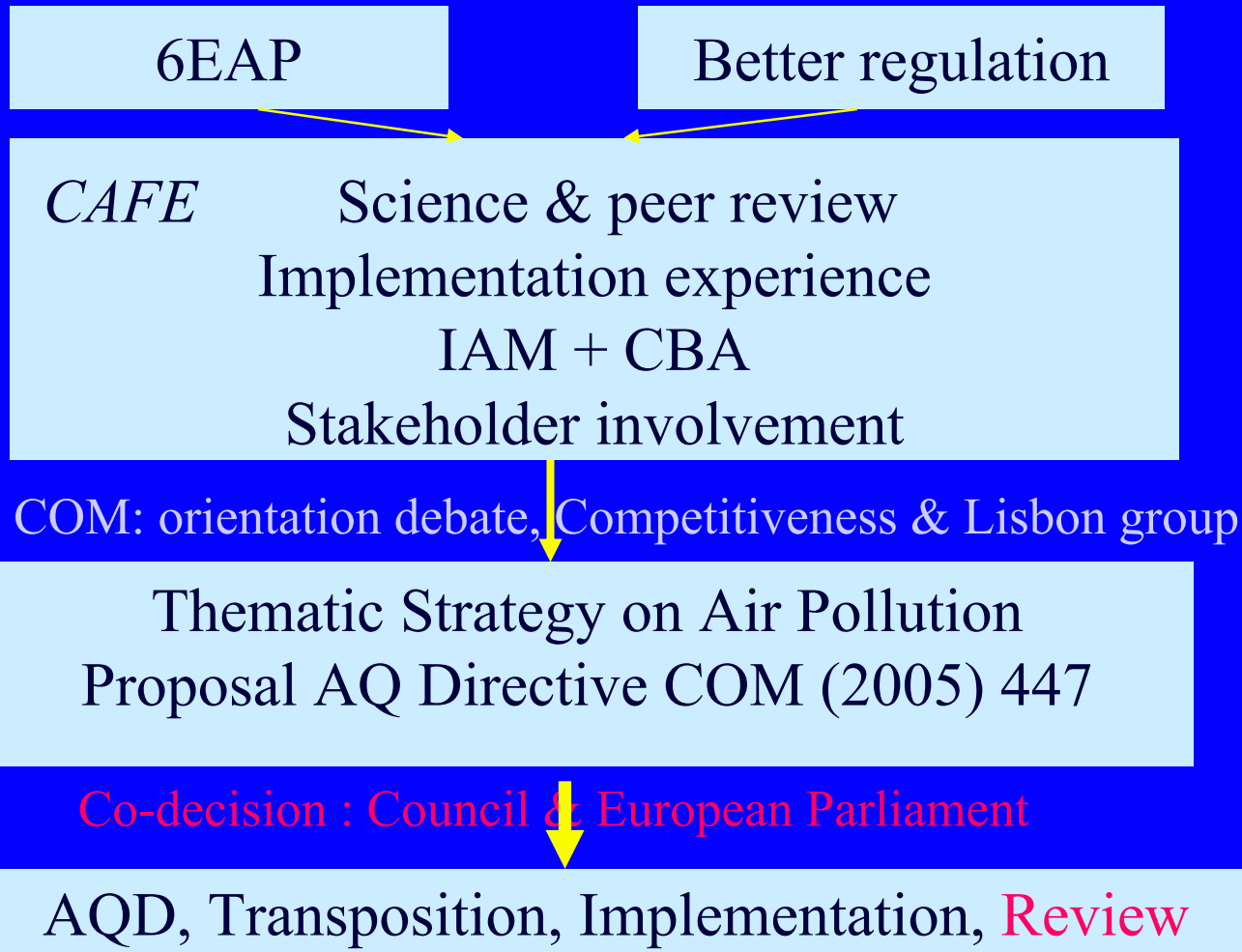
# Air4EU in air policy

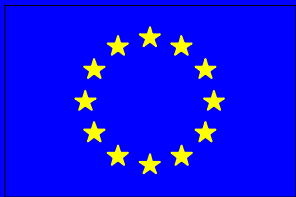
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- **Optimized assessment leads to**
  - **Streamlined, cost-effective monitoring**
  - **Maximum use of information**
    - ▣ More easy to justify
  - **Proper information to the public**
  - **Understanding of sources, impact of measures**
    - ▣ Realistic projections, better policy
  - **Foundation for effective measures**
    - ▣ Better attainability + lower cost = higher ambition



# The Process





## CAFE Baseline

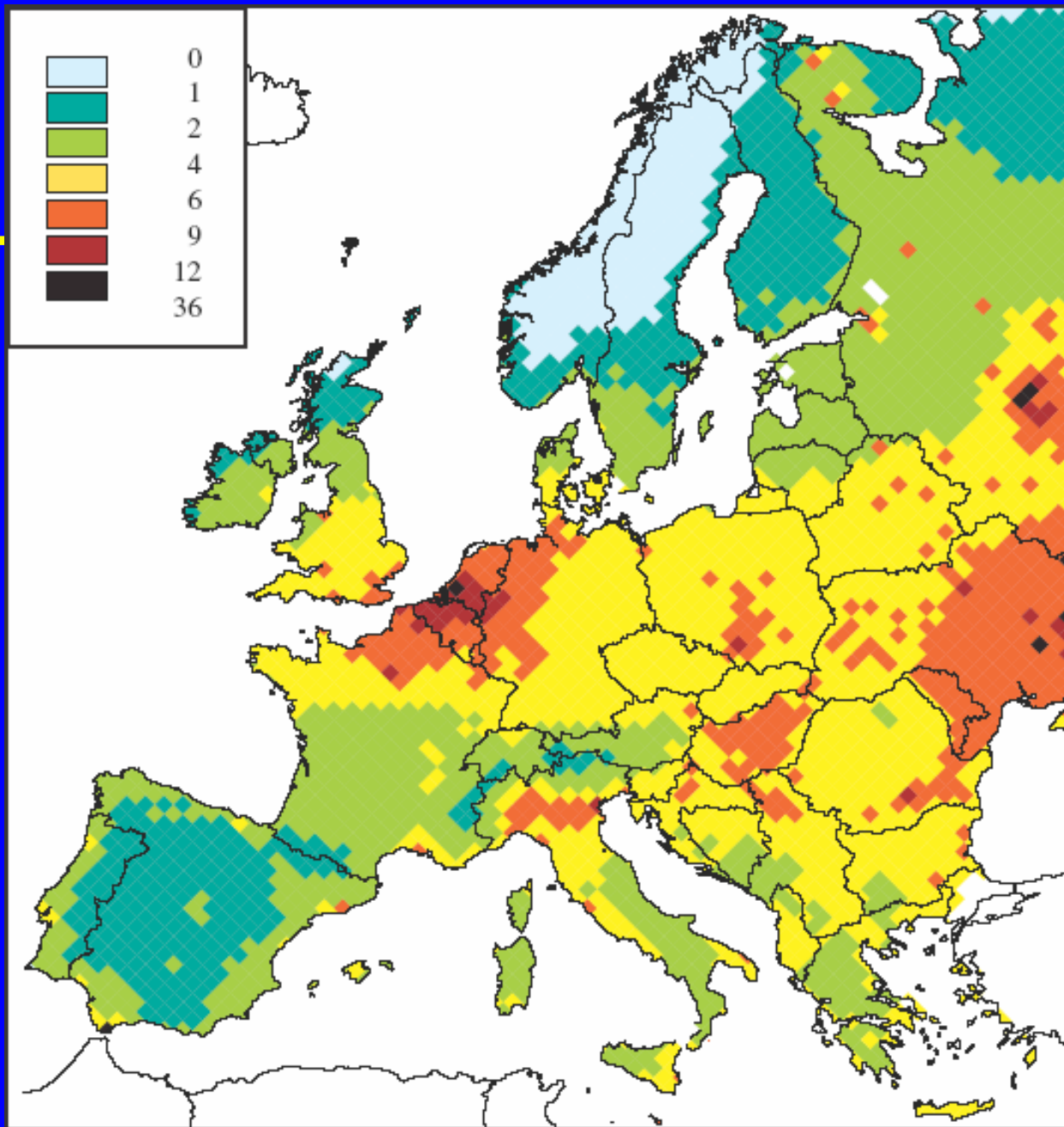
2020

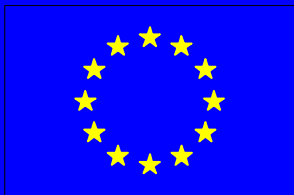
under current  
legislation

Loss in life  
expectancy due to  
fine particles

(in months)

270,000 premature  
deaths annually



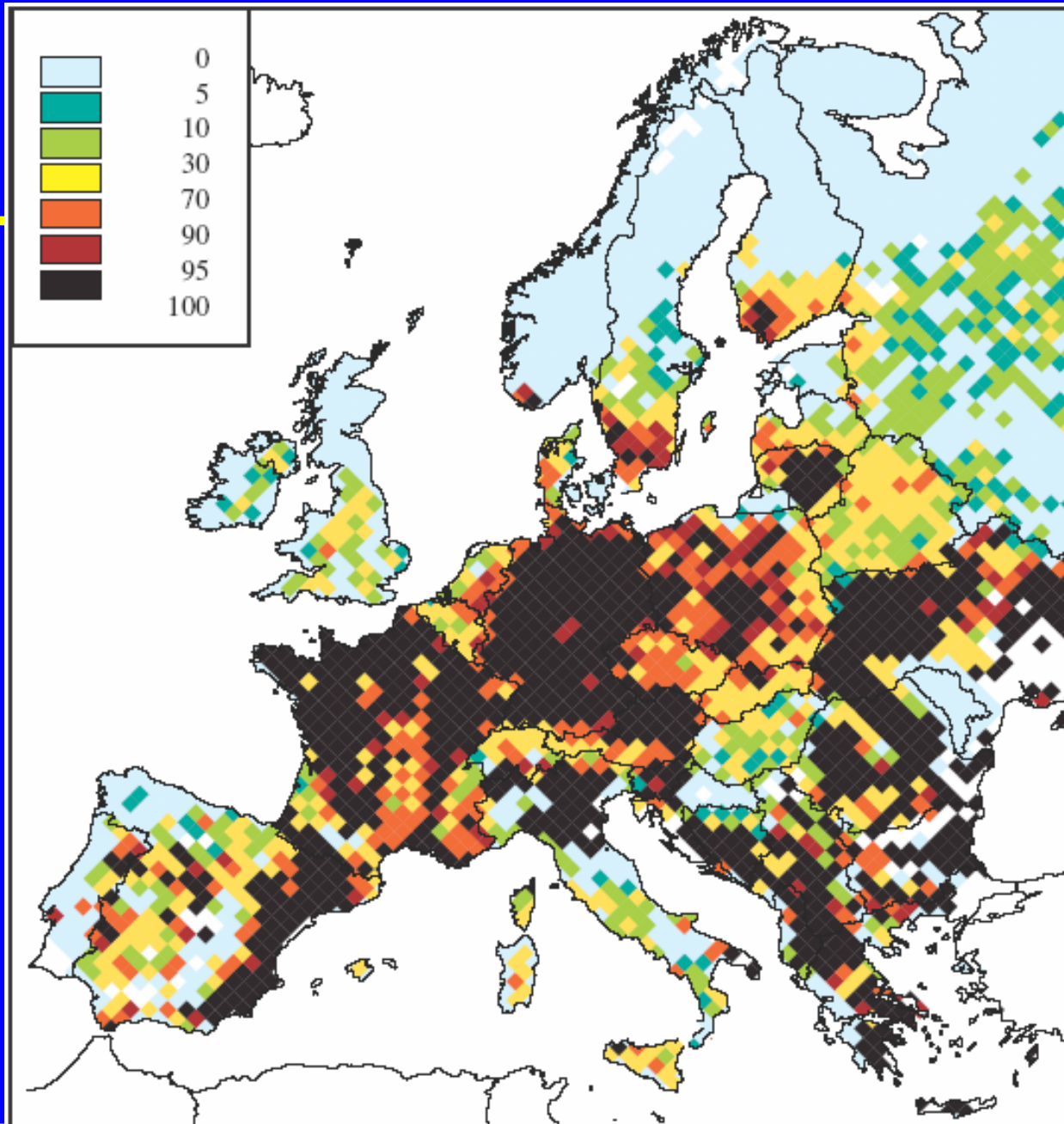


**Example 2:**  
**Problem of too much  
nitrogen deposited  
to nature in 2020**  
*No EU policies have  
yet addressed this.*

**Ecosystem area  
exceeded eutrophication  
590 000 km<sup>2</sup>**

Percentage of  
ecosystems area with  
nitrogen deposition  
above critical loads  
using grid-average  
deposition.

Calculation for 1997  
meteorology





# Thematic strategy on Air Pollution

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- **>370.000 people in Europe prematurely die due to air pollution**
  - **350.000 due to fine particles PM2.5**
  - **Shortens life expectancy in average by more than 8 months**
- **Strategy sets interim env. objectives in 2020**
- **CBA**
  - **Costs : 7.1 billion euro**
  - **Monetized benefits : 42-135 billion euro**



# Community measures following the Strategy

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- **Euro 5 & 6 for cars and vans**
- **Euro VI for Heavy duty**
- **Revision of the NECD consistent with objectives identified in the Strategy**
- **Small scale combustion**
  - Review of IPPC directive for larger sources
  - Energy using Products directive for small sources
- **Ship NOx engine standards (IMO or Community)**
- **Agriculture (NH<sub>3</sub>)**
  - N content of feedstuffs
  - Review of IPPC directive for intensive agriculture
- **Revise Air quality legislation**



# AQD revision

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**A. Respond to updated health advice**

⇒ environmental objectives for  $PM_{2,5}$

**B. Address current compliance problems**

⇒ flexibility of attainment date

**C. Only man-made sources can be addressed**

⇒ deduction of natural sources

( only for compliance)

**D. Modernize reporting system**

**E. Merge = streamline and Miscellaneous**



## 2004/461/EC for 2005, Results (situation October)

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- Zone exceedance daily 39%, annual 17 %
  - Exceedances in all countries that reported, 9 MS exceedances in more than 90% of their zones
  - 15 out of 21 exceedance in ALL their agglomerations, DE > 54%, UK 68 %
  - Can be misleading for policy purposes
- NO<sub>2</sub> : Exceeding LV+MoT
  - UK 81%, AT 55%, DE 29%, IT 38%, FR 14%



# What's new (1)

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## Environmental objectives for PM<sub>2,5</sub>

### Concentration cap (limit value)

### Exposure reduction target

- Concentration cap of 25µg/m<sup>3</sup> annual average to apply everywhere  
Robust monitoring of PM<sub>2,5</sub> concentrations
- Target to reduce national average measured urban background concentration by 20% between 2010 and 2020 subject to later review where differentiated MS legal objectives to be proposed
- **Exposure reduction target should drive measures to deliver the objectives of the Thematic Strategy**



## What's new (2)

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### Addressing compliance problems (Article 20)

- **Attainment date not yet arrived (NO<sub>2</sub>)**
- **Attainment data passed (PM<sub>10</sub>)**
  - **Only if rationale can be given**
    - unfavourable climatic conditions or
    - large trans-boundary contribution...
- Time extension once, up to 5 years, subject to conditions
- Conditions : amended plan which obligatory had to at least consider a list of measures (Annex to the Directive)
- **LV in force, but at LV+MoT level!**



## What's new (3)

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### Reporting

- **To be adopted by the Committee**
- **Prepared by Data Exchange Group**
- **Explicit requirements in Art. 25**
- **INSPIRE, Shared Env Information System**



## What's new (4)

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- **Spatial applicability of critical levels for the protection of ecosystems**
- **Deduction of natural sources (Article 19)**
- **Further QA/QC provisions**
- **Background monitoring requirement**



# Co-decision : State of play

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- **Commission**
  - **Proposal October 2005, in parallel with TS on Air Pollution**
- **EP**
  - **first reading 27 September (postponed)**
- **Council**
  - **General approach agreed in June**
  - **Political agreement 23 October (NL/PL against)**
- **Commission supports Council text, while it finds some EP amendments, including those on longer time extensions and weakening of daily PM10 limit value unacceptable**
- **2<sup>nd</sup> reading : 1<sup>st</sup> half 2007**
- **Entry into force : 2<sup>nd</sup> half 2007?**



## Issues raised

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- **Spatial applicability of the limit values**
- **‘Streamlining’ PM mon. requirements**
- **Exposure reduction target PM<sub>2.5</sub>**
  
- **Daily PM<sub>10</sub> limit value**
- **Annual PM<sub>10</sub> limit value**
- **Annual PM<sub>2.5</sub> limit value**
- **Time extensions**



# Air quality – final messages

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- **Important 2011-13 review**
  - Include new data and research on PM<sub>2.5</sub>
  - Make exposure reduction obligatory
  - Knowledge on Community measures
- **Exposure reduction will deliver TS objectives**
  - Too strict PM<sub>2.5</sub> LV would focus measures in hotspots
  - In 2008 PM<sub>2.5</sub> network for exposure reduction has to be in place!
  - Management for exposure reduction requires good assessment



# Implementing provisions

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- **Objectives**
  - **Modern, electronic, streamlined reporting**
  - **Reduction of administrative burden**
    - Minimize interaction due to QC
    - Reduce need for user interaction
    - Maximize use of IT
    - Minimize burden for aggregation
  - **Added value of information content**
    - Including spatial nature of AQ information
  - **Adopt SEIS, INSPIRE concepts**
- **Data Exchange Group**



# INSPIRE

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- **Directive**

- **conciliation between EP and Council in November**
- **Main issues access to data & its potential costs**
- **Strong interest from other sectors (AGRI etc)**

- **Implementation**

- **First drafts of implementing rules to be available soon**
- **DEG is INSPIRE SDIC responsible for AQ theme**
- **DEG needs to support the process**



# Shared Env. Information System

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- **SEIS = information infrastructure (3 pillars)**
  - **EPRG endorsed, but still fairly unknown – information package before end 2006**
  - **Communication by COM in 2<sup>nd</sup> half 2007, potentially with legislative proposal to ensure legal basis**
  - **Further Group of 4 (ENV,ESTAT,JRC,EEA) agreements in preparation for sustainable support of data centers & horizontal units**
  - **Addressing data policy issues**
  - **Timescale : full electronic reporting by 2009, followed by move to distributed system (INSPIRE based)**
- **What do we do?**
  - **EIONET follows development through EEA and DEG**



## Related activities - contracts

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- Representativeness, classification of stations (UBA AT)
  - **Interim and methodology report available**
- Support to work on Implementing provisions (UBA AT)
  - **Impact assessment, preparation of guidance, examples**
- Administrative arrangement with JRC ‘Inspire’ unit (in prep.)
  - **Manage pilot projects in (up to) 2+2 Member States**
  - **Exploiting synergies with other themes**



# Related activities - other

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- EEA activities
  - Data centre; **Ozone web, data QC, work on spatial data, indicators**
- JRC
  - AQUILA, Preparation of integrated QA/QC
  - AirMOD (modelling network)
  - Administrative arrangement on use of remote sensing and determination of contribution of natural sources
- GMES
  - **Fast track service “Atmosphere” – remote sensing and modelling services to support assessment by Member States**
  - **Workshop in December, Brussels : final terms of reference, description and timetable for implementation**
- **Assessment of plans and programmes (contract)**



## Work, use of Air4EU results

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- Further exchange on air quality plans – dissemination
- Implementation by MS
- GMES
- Implementing Provisions
- Guidances
  - natural sources, winter sanding...
  - Implementation
- + representativeness > AQD Annexes



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Thank you

<http://ec.europa.eu/environment/air/index.htm>

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# Implementation

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- Link to Air4EU results – assessment
- NATAIR
- Representativeness
- Implementing provisions



## Issues raised (1)

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### **Spatial applicability of the limit value**

- **LV applies throughout territory**
- **Reasonable application of the rules of evidence**
  - (-) Close to the ground
  - (-) Very small areas (when modelling)
- **Council : explicit exclusion of compliance assessment**
  - No Access AND no habitation
  - On the road, on the central reservation of roads



## Issues raised (2)

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### **PM monitoring**

- **EP : 50% reduction for 'new' PM2.5**
- **Council : combined PM10/PM2.5 monitoring reduction by 25%**
  - Ratio 1 : 2 required
  - Urban background PM2.5 for exposure reduction required
  - Where PM10 exceedances in last 3 years maintain
- **Council : raise PM assessment threshold levels**
  - Consistence PM thresholds with other pollutants



## Issues raised (4)

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### Daily PM10 limit value

- **Council : maintain as is**
  - NL : delete!
- **EP : weaken**
  - MS can decide to lift from 35 to 55 allowed days over 50 micrograms/m<sup>3</sup>



## Issues raised (4)

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### Annual PM10 limit value

- **Council : maintain as is**
- **EP : strengthen**
  - Reduce from 40 to 33 micrograms/m<sup>3</sup> in 2010
  - **Beware : time extensions!**
  - **30 roughly comparable to daily 35/50**
  - (WG PM position paper 2004)



# Issues raised (5)

## Fine particles $PM_{2.5}$

### • EP

- $PM_{2.5}$  concentration cap stricter at  $20\mu\text{g}/\text{m}^3$  but delayed until 2015.
- Differentiated exposure reduction for urban  $PM_{2.5}$ 
  - $<10\mu\text{g}/\text{m}^3$  average (AEI) then 0% national reduction
  - $10\text{-}15\mu\text{g}/\text{m}^3$  average then variable 10% national reduction
  - $15\text{-}20\mu\text{g}/\text{m}^3$  average then 15% national reduction
  - $20\text{-}25\mu\text{g}/\text{m}^3$  average then 20% national reduction
  - $>25\mu\text{g}/\text{m}^3$  average then all appropriate measures to reach AEI =  $20\mu\text{g}/\text{m}^3$

### • Council

- $PM_{2.5}$  concentration cap  $25\mu\text{g}/\text{m}^3$  but delayed until 2015.
- Differentiated exposure reduction for urban  $PM_{2.5}$  by 2020
  - $<7\mu\text{g}/\text{m}^3$  average then 0% national reduction
  - $>7\text{-}13\mu\text{g}/\text{m}^3$  average then variable (AEI x 1.5)% national reduction
  - $>13\mu\text{g}/\text{m}^3$  average then 20% national reduction

### • Implementation schedule

- UB stations by 2008
  - derogation by 2009 – only 2 year average for ERT, or same ERT for only 9 years
- Other stations by the transposition date



## Issues raised (6)

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# Time extensions of LV attainment date, under conditions

- **Commission**
  - < 5 years for all pollutants, from attainment date
  - Example :  $PM_{10}$  2010,  $PM_{2.5}$  2015,  $NO_2$  2015
- **Council**
  - $NO_2$  <5 years,  $PM_{10}$  < 3 years after entry into force
  - Example:  $PM_{10}$  2011\*, ( $PM_{2.5}$  2015),  $NO_2$  2015
- **EP**
  - $PM_{10}$  : 4+2 years after entry into force,  $NO_2$  4 years unconditional
  - Example:  $PM_{10}$  2012-2014, ( $PM_{2.5}$  2015 at 20),  $NO_2$  2014
  - Link to Community measures