



Thematic Strategy on Air Pollution

New Directive on Ambient Air Quality

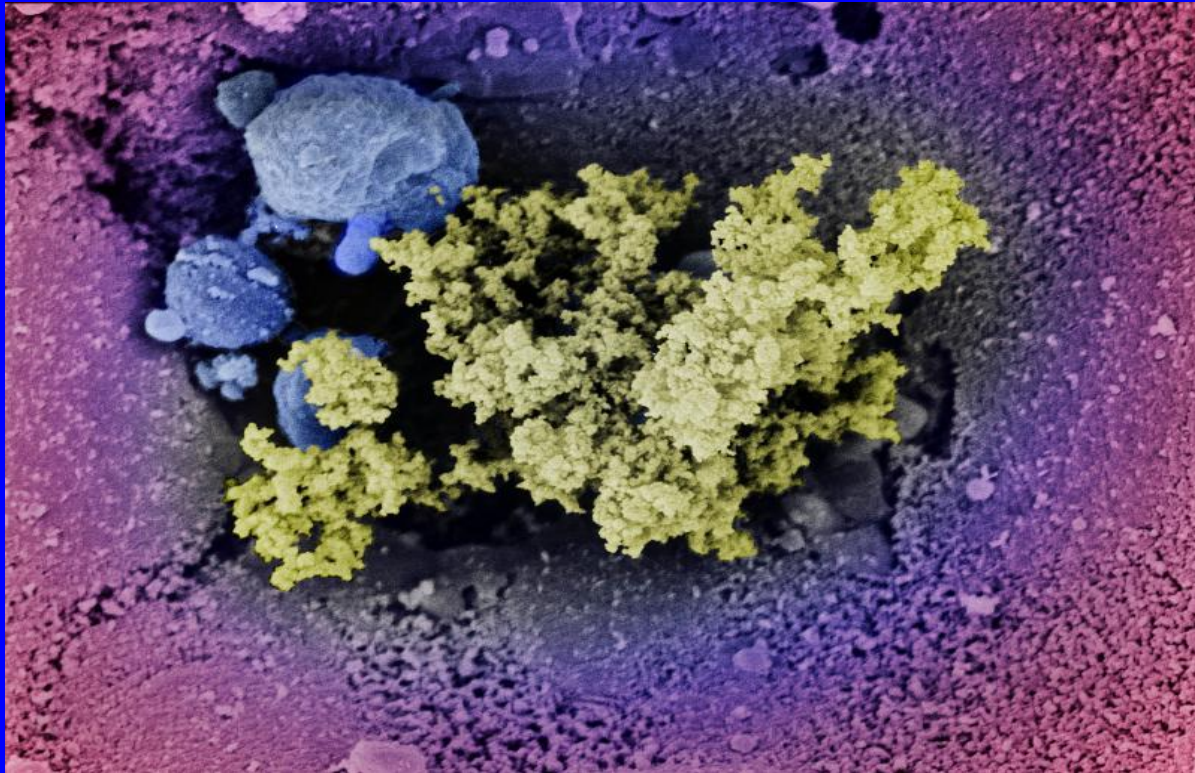
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Content

- **Ambient Air quality - perspective**
- **Existing EU ambient air quality directives**
 - **Implementation experience**
- **CAFE – Thematic strategy on Air Pollution**
- **New ambient air quality directive**
 - **CAFE to Commission proposal**
 - **Adoption, outlook**



Historical Perspective

- **Serious impacts of air pollution recognised in EC environment programmes since the 1970's but...**
- **Patchwork of measures:**
 - **Car emission controls in 1970's**
 - **Automotive fuel quality unleaded petrol (1980's)**
 - **Air Quality standards for SO₂, NO₂ and suspended particles (1980's)**
 - **First legislation on permitting industrial installations (1980's)**
 - **EC became party to the UN ECE Convention on Long Range Trans-boundary Air Pollution in 1981**



Today

Comprehensive framework !

- **EU air quality Framework and daughter directives**
 - harmonised approach to the assessment **and** management of air quality
 - Environmental standards based on WHO Air quality guidelines
- **Many polluting sources covered by Community legislation**
 - Adopted Stage 5 & 6 – car emissions limits
 - Preparation of Stage 6 for emissions from lorries
 - Off-road emissions legislated
 - Comprehensive industrial emissions framework –application of Best Available Techniques and specific limits for certain sectors such as large combustion plant and waste incinerators (IPPC)
 - Fuel quality, solvents, paints, varnishes all legislated
- **National emission ceilings for each Member State for several pollutants by 2010 (NO_x, SO_x, VOCs, NH₃) based on emissions, impacts, meteorology and cost-effectiveness.**



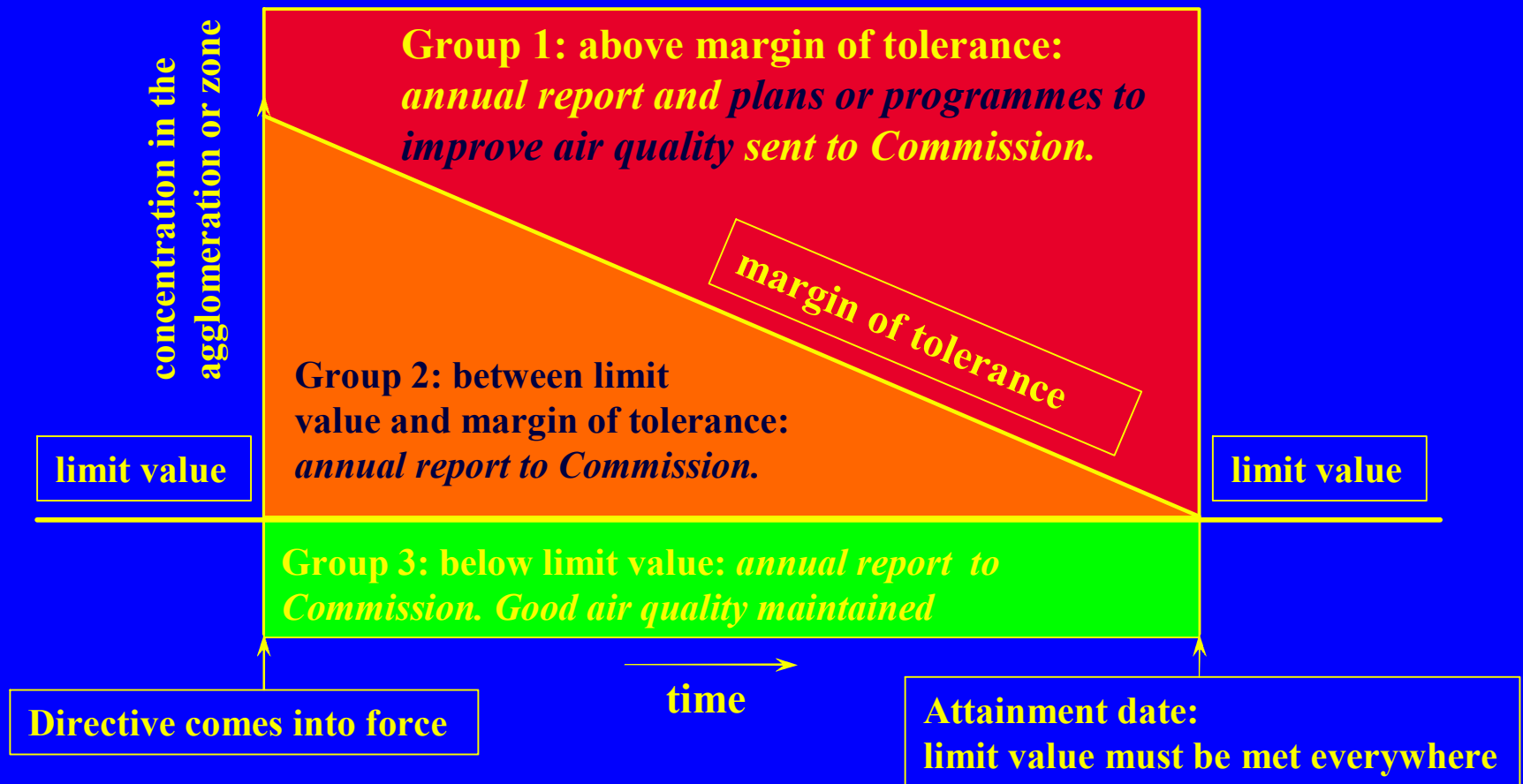
Air Quality Assessment and management

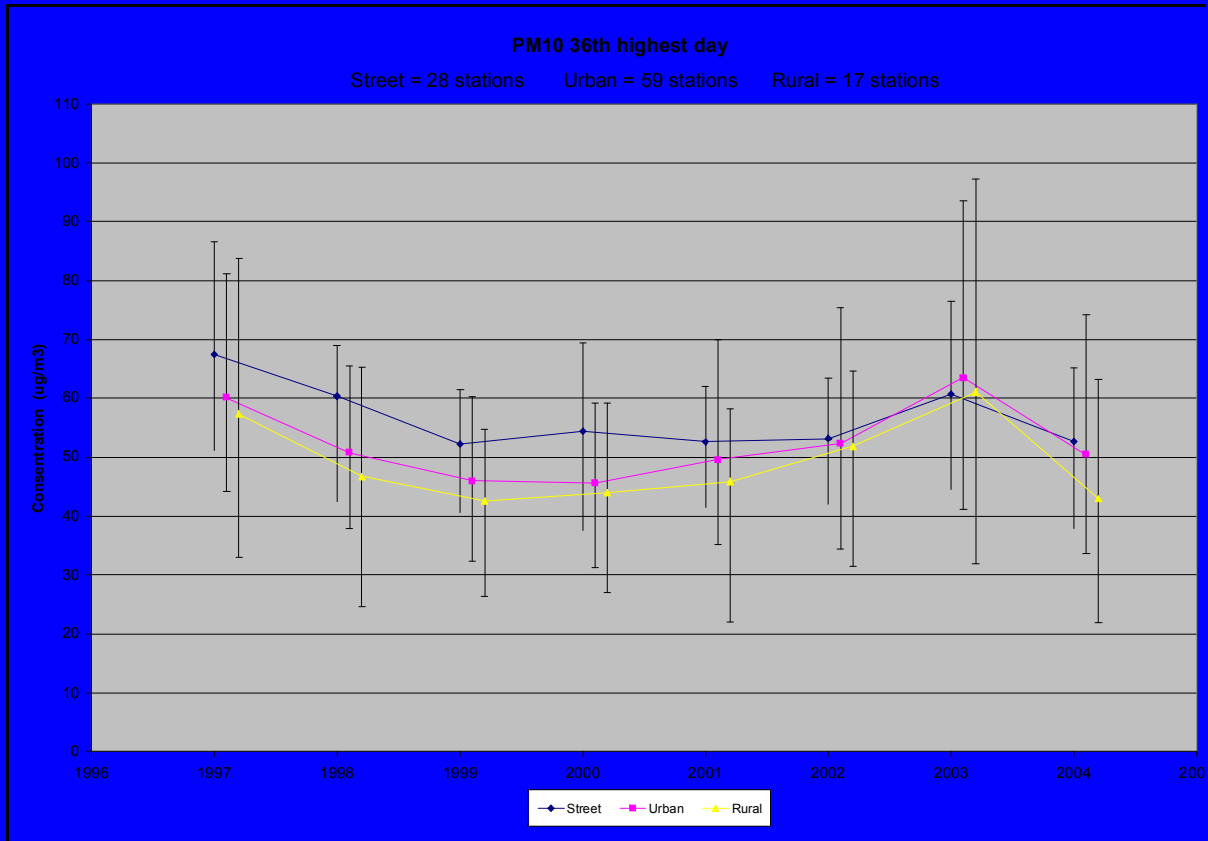
Air Quality Framework directive: established principles & techniques

- Well defined air quality management zones
- Assessment of >12 pollutant concentrations using monitoring and modelling
- Plans & Programmes mandatory to meet air quality limits before entry into force
- Legal sanctions before the Court of Justice for non-compliance after limits enter into force.



Attainment scheme





By EEA, Source : Airbase



Exceedances

- **PM₁₀: Zone exceedance daily 39%, annual 17 %**
 - Exceedances in all countries that reported except IE, 9 MS exceedances in more than 90% of their zones
 - 15 exceedance in ALL their agglomerations, DE > 54%, UK 68 %
 - Can be misleading for policy purposes
 - **Only very small area in a zone may be in exceedance!**
- **Emerging NO₂ : Exceeding LV+MoT**
 - UK 81%, AT 55%, DE 29%, IT 38%, FR 14%



Experience to date (1)

- **Mixed success. Almost total compliance for some pollutants but for PM₁₀, most Member States have problems.**
 - **Poor/slow preparation by air quality managers**
 - **Over-optimistic expectation of what new measures (e.g. vehicles) would deliver**
 - **Local authorities have insufficient legal powers to take the most effective measures**
 - **National coordination failing to tackle “national background” pollution**
 - **More effort needed to tackle cross-border pollution and sources with a Community dimension (e.g. cars, trucks, domestic boilers etc.)**
- **Experience has been integrated into Commission’s proposal for new air quality directive => additional compliance time.**

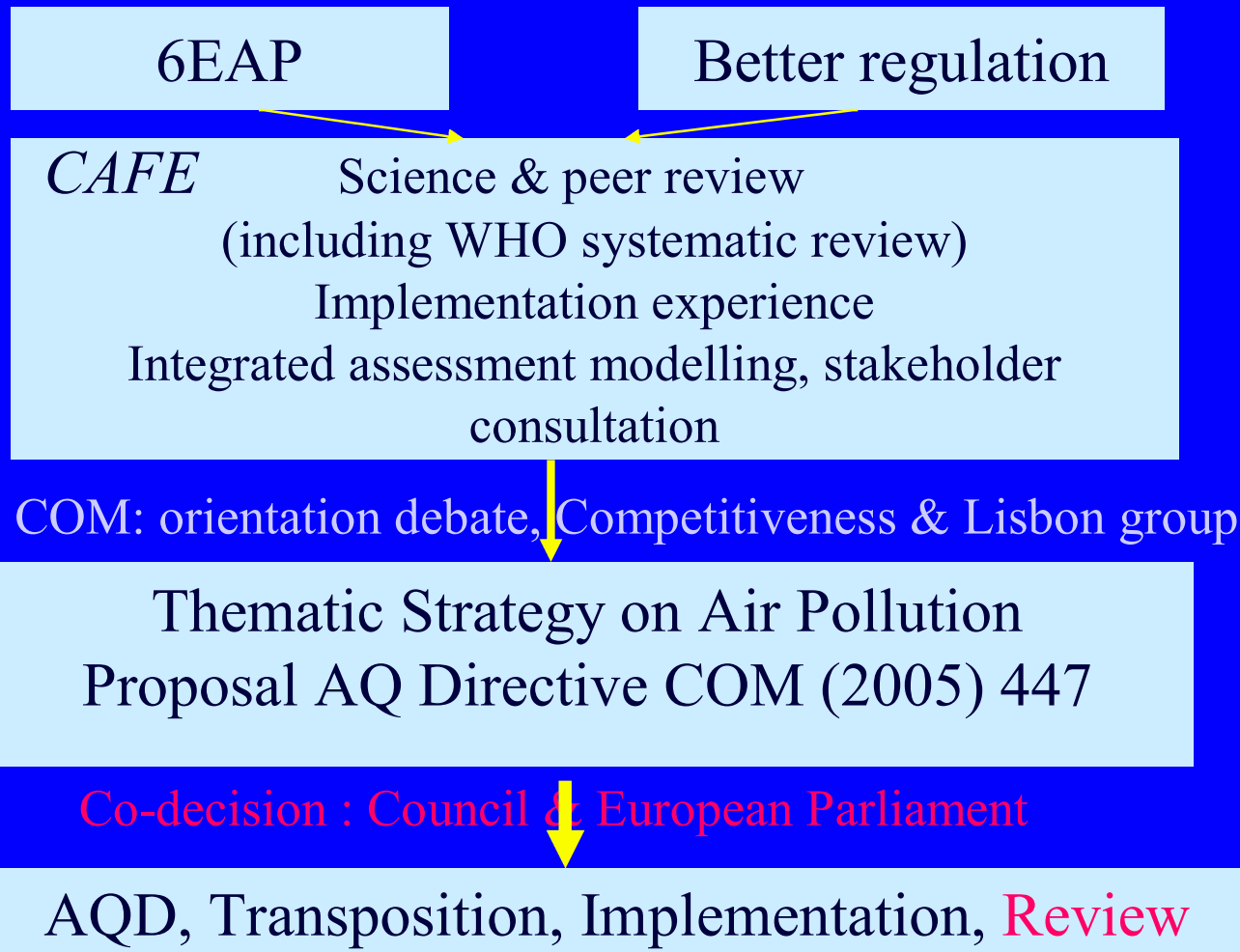


Experience to date (2)

- Short term action plans
 - Sometimes aversion created following cases of misunderstanding and bizarre implementation
- Short term action implementation tips
 - Short term limit value must also be addressed through structural measures
 - Measures need to be planned in advance
 - The 2nd day of exceedance may be easier to avoid than the 36th ...



The Process





Thematic strategy on Air Pollution

- **>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**
- **Cost Benefit Analysis**
 - **Costs : 7.1 billion €**
 - **Monetized benefits : 42-135 billion €**



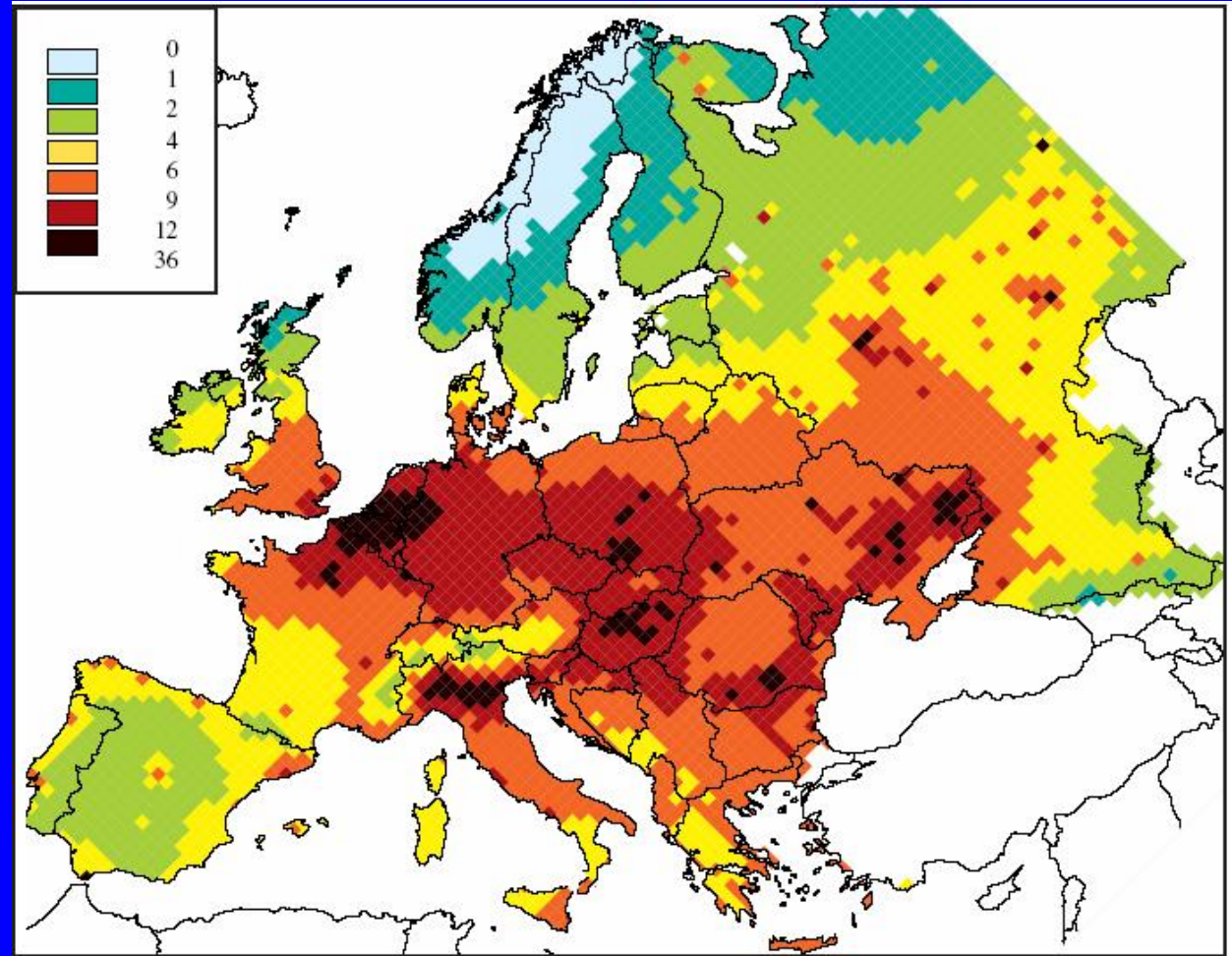
Fine particles serious health issue

CAFE 2000

**Loss in life
expectancy due to
fine particles**

(in months)

**350,000 premature
deaths per year!**





Clean Air for Europe

- **Even in 2020, significant health and environmental problems expected! => More efforts are needed.**
- **Air Pollution Strategy : a coherent response endorsed by Council & Parliament**
- **By far most health benefits expected from reduced public exposure to fine particles (PM_{2.5})**
- **Measures include**
 - **New Air Quality directive with standards for fine particles**
 - **New emissions ceilings for each Member State to be attained by 2020 (SO_x, NO_x, NH₃, VOCs, PM_{2.5})**
 - **New Source-based measures (ships, domestic boilers, small industrial combustion plants, agriculture) & review of the directive on Integrated Pollution Prevention & Control**

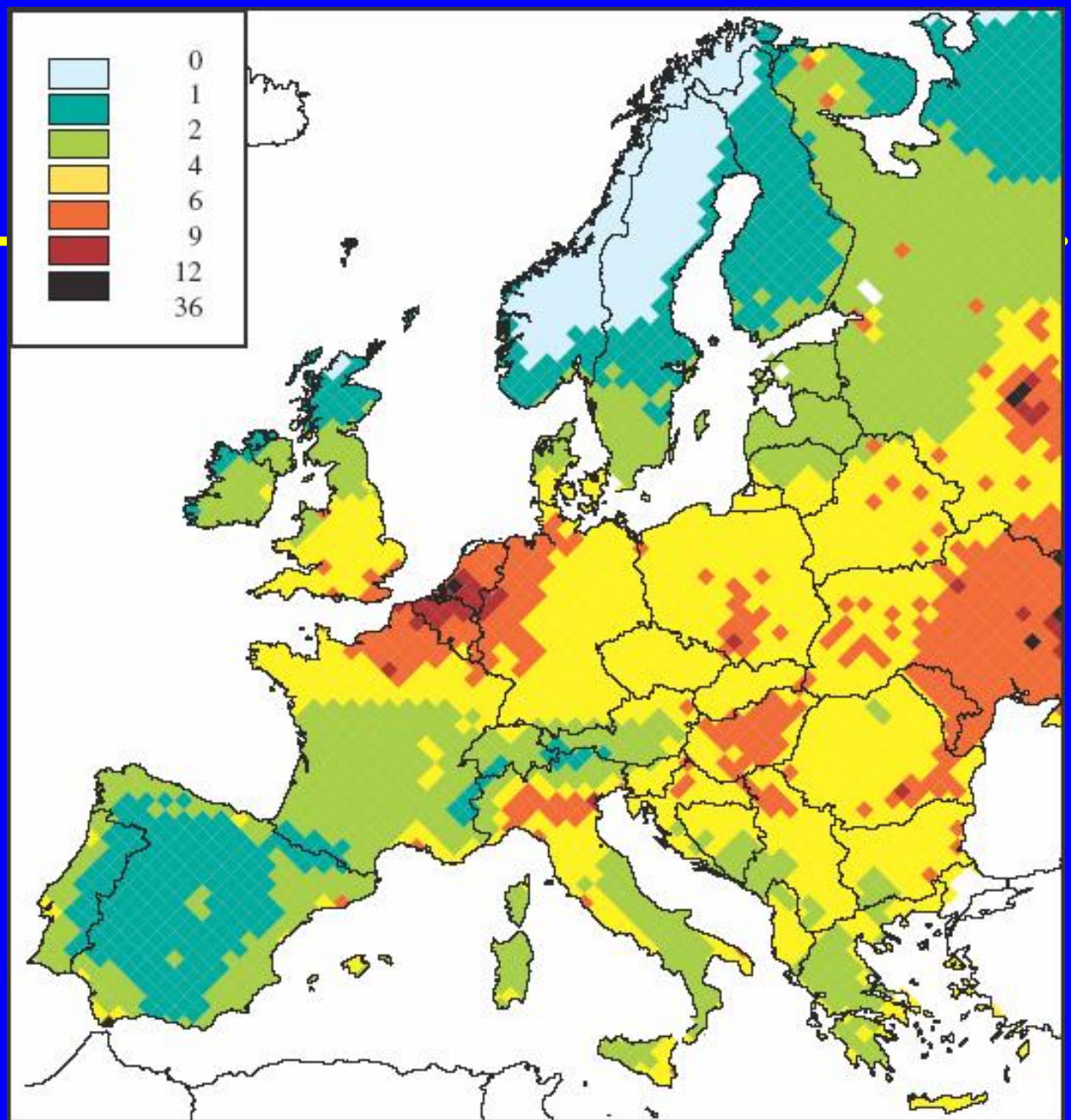


**CAFE Baseline
2020
under current
legislation**

**Loss in life
expectancy due to
fine particles**

(in months)

**270,000 premature
deaths per year!**





Air Quality Directive revision

Maintain existing provisions!

Unrealistic to confirm PM_{10} level II limit values

A. Respond to updated health advice (WHO)

⇒ **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 (for compliance)**

D. Modernize system for information exchange: merge and streamline



What's new (1)

Twin environmental objectives for PM_{2,5}

1) Concentration cap (Limit Value)

Concentration cap of 25 µg/m³ annual average to apply everywhere
Robust monitoring of PM_{2,5} concentrations

2) Exposure reduction target

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)

Addressing compliance problems (Article 20)

- **Attainment date not yet arrived (NO₂)**
- **Attainment date already passed (PM₁₀)**
 - **Only if rationale can be given**
 - unfavourable climatic conditions, large trans-boundary contribution...
 - Time extension once, up to 5 years, subject to conditions
 - **Conditions** : amended plan which must at least consider a list of measures (Annex to the Directive)
 - **Limit Value in force, but at LV+Margin of Tol. level**



Co-decision : State of play

- **Commission Proposal in September 2005**
- **European Parliament: 1st reading September 2006**
- **Council: political agreement October 2006**
 - **Common position expected in June 2007**
 - **Commission supports common position**
- **2nd reading : 2nd half 2007, entry into force : 2008**

- **Current differences between EP and Council**
 - **EP to weaken daily PM_{10} , tighten annual PM_{10} limit value**
 - **EP to weaken $PM_{2.5}$ exposure reduction target, strengthen $PM_{2.5}$ annual limit value**
 - **EP to double prolongation of limit value attainment dates**
 PM_{10} : Commission 2010, Council 2011, EP 2014



New Air Quality Directive - final messages

- Review in 2011-13 is important
 - Include new data and research on PM_{2.5}
 - Make exposure reduction obligatory
 - By that time, main Community measures will be adopted
- Effective air quality plans require:
 - Good coordination between neighbours and between levels of governance
 - Proper assessment of sources and exposure
 - Appreciation of local conditions
 - Careful planning and timely implementation



Summary

- **Achieved a lot, but significant air pollution problems persist.**
- **New Strategy aims to make progress in solving these problems – timescale 2020.**
- **New air quality directive will help address PM_{2.5}**
- **New source-based measures under preparation or already adopted at EU level, but**
- **Member States at all levels of governance have to play their part**



Thank you!

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

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