



# Integrated assessment in the EU air policy

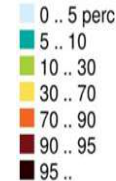
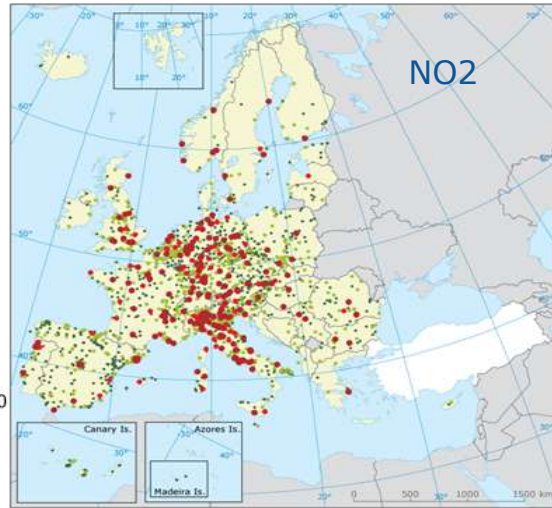
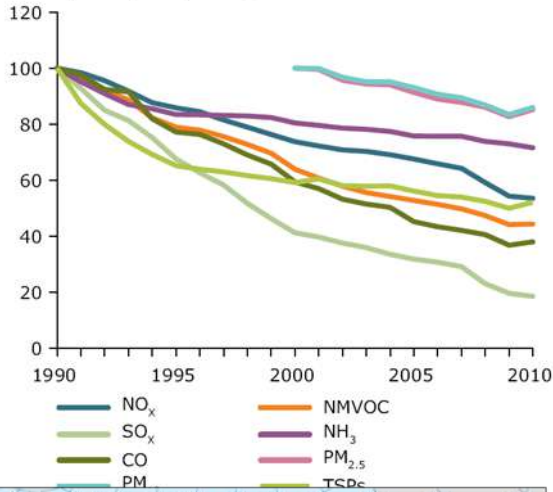
Appraisal project conference  
CoR

Scott Brocket and Andre Zuber,  
European Commission  
Environment Directorate-General

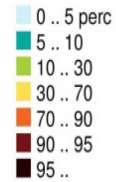
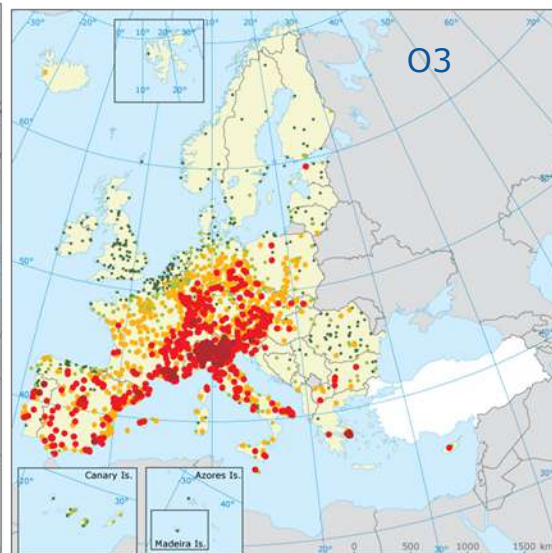
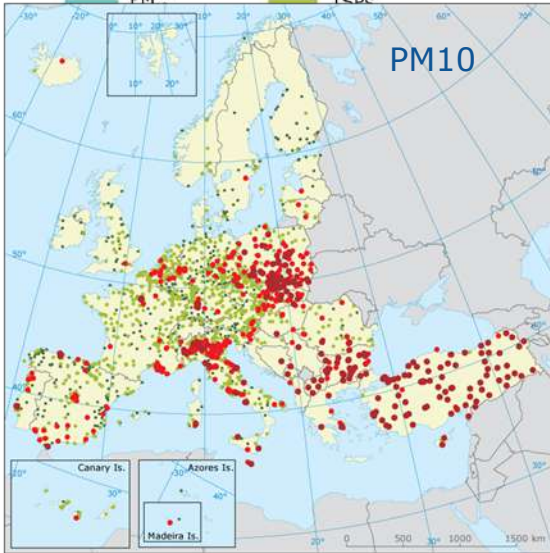
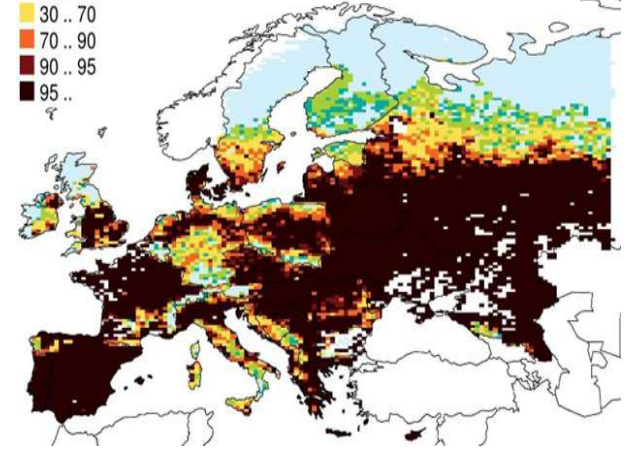
**Brussels, 19 November 2013**

# EU today

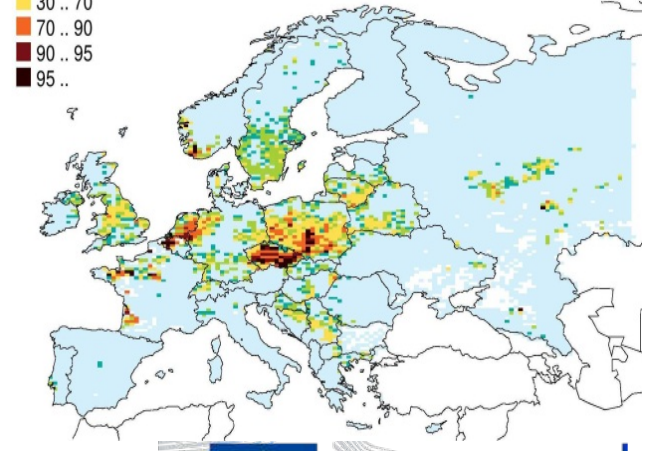
Index (1990 (2000) = 100)



Eutrophication



Acidification



# What is the problem?

| Premature deaths due to PM and ozone | Restricted activity days due to PM | Forest area exceeding acidification limits | Lake area exceeding acidification limits | Ecosystem area exceeding eutrophication limits | Natura 2000 areas exceeding eutrophication limits |
|--------------------------------------|------------------------------------|--|--|--|---|
| 406,000                              | 569 Million                        | 9%   | 25%                                      | 62%  | 71%   |

| PM10 compliance | NO2 compliance | O3 attainment | PM10 population exposed above the limit value | NO2 population exposed above the limit value | O3 population exposed above the target value |
|-----------------|----------------|---------------|---|--|--|
| 68%             | 76%            | 65%           | 40%   | 6-12%  | 35%  |

| Air Quality Standards | PM10 | PM2.5 | NO2 | O3  |
|-----------------------|------|-------|-----|-----|
| EU                    | 40   | 25    | 40  | 120 |
| WHO                   | 20   | 10    | 40  | 100 |



# The policy framework

## ***The International Air Quality Policy Framework***

- The UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP)
- The European Programme for Monitoring and Evaluation (EMEP)
- The assessments by OECD, UNEP, WHO, WMO, FAO ...

## ***The EU Air Quality Policy Framework***

- The Treaty of the European Union; Rome,.... Lisbon
- The Environment Action Program; First .... Seventh (2002-2013)
- The 2005 Thematic Strategy on Air Pollution
- The National Emission Ceilings Directive
- The Ambient Air Quality Directives

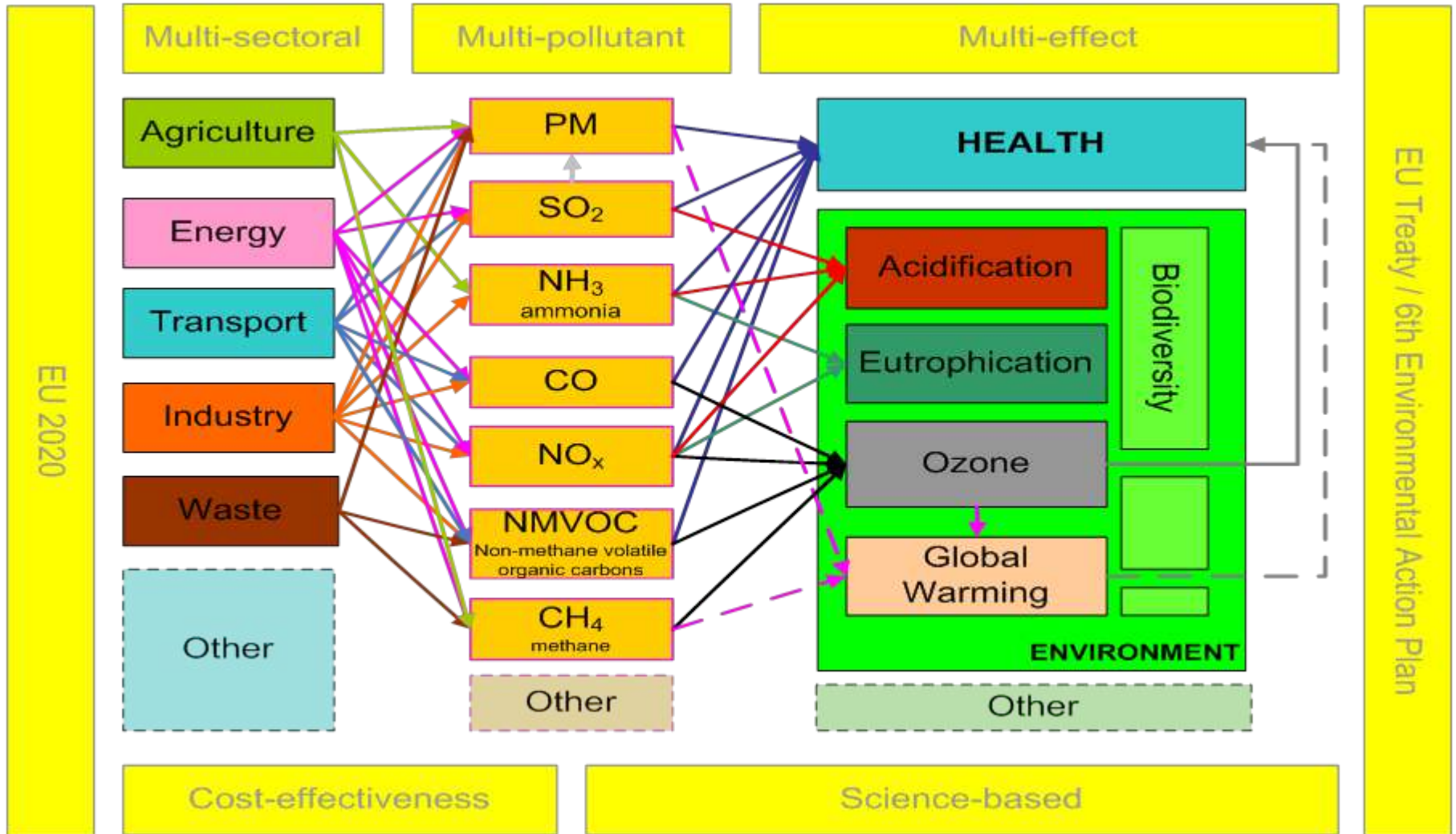
## ***The EU Air Pollution Source Abatement Policy Framework***

- Emissions from Industrial Installation and Products
- Emissions from Road Transport Emissions
- Emissions from Non-Road Mobile Machinery
- Emissions from Agriculture
- Emissions from Domestic Heating

## ***Subsidiarity - National and Local Air Pollution Policy Framework***



# Air pollution – complex but mastered



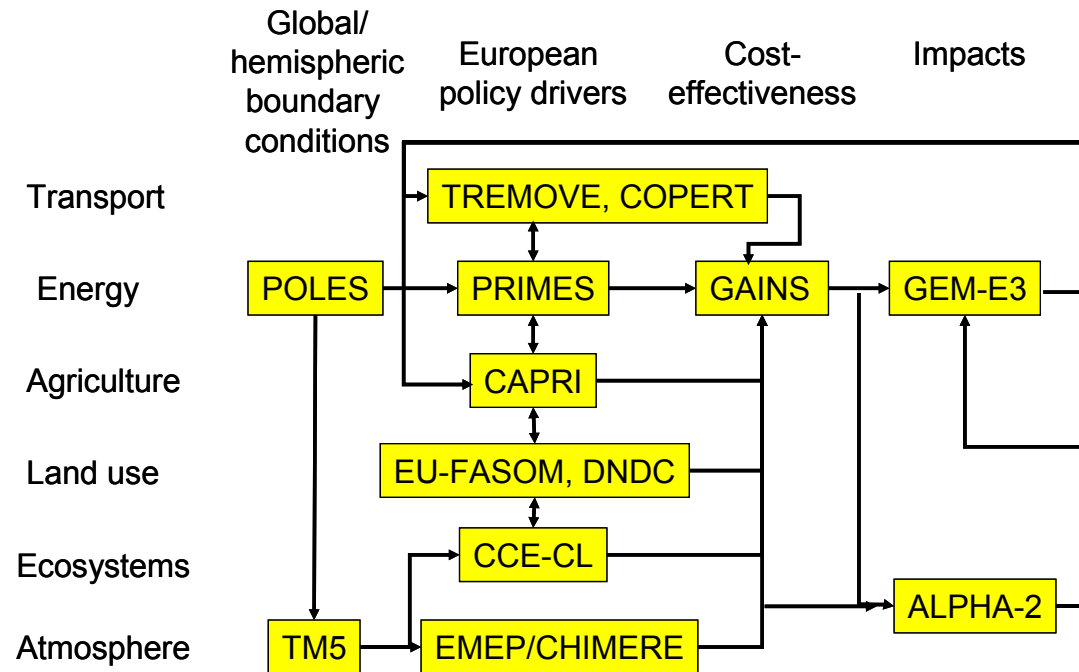
# An operational IAM for EU policy

IAM EU4MACS considers interactions between

- economic sectors, policy areas,
- spatial scales, temporal scales,
- physical processes

and is

- transparent and documented,
- understood by non-experts,
- relevant, updated, accurate and valid, accepted
- capture current and future air pollution and its impacts
- assess policy options and their impacts
- include technology and non-technical measures

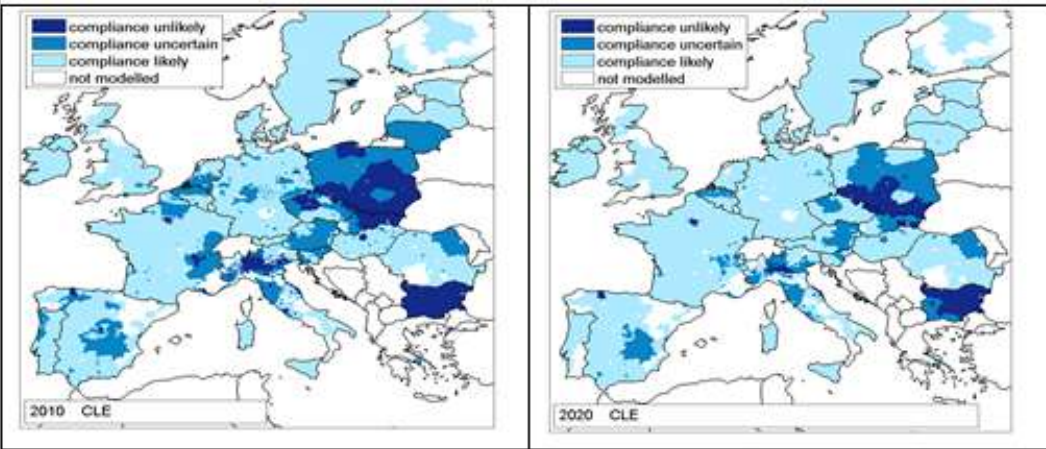


# How will the problem evolve?

| Headline Indicator  | 2010    | 2020    | 2025    | 2030    | 2050<br>baseline | 2050 MCE |
|---|---------|---------|---------|---------|------------------|----------|
| Premature deaths from chronic PM2,5 and short-term ozone exposure | 406.000 | 340.000 | 330.000 | 327.000 | 323.000          | 152.000  |
| Reduction from 2005   | 13%     | 33%     | 37%     | 40%     | 44%              | 71%      |
| Percentage forest area exceeding acidification critical load      | 9       | 4       | 4       | 4       | 3                | 0        |
| Reduction from 2005   | 32%     | 66%     | 71%     | 74%     | 74%              | 97%      |
| Percentage ecosystem area exceeding eutrophication critical load  | 62      | 55      | 53      | 52      | 52               | 26       |
| Reduction from 2005   | 8%      | 18%     | 21%     | 22%     | 22%              | 50%      |
| Health related external costs<br>Billions Euros per year          | 2010    | 2020    | 2025    | 2030    | 2050<br>baseline | 2050 MCE |
| Low estimate  | 330     | 243     | 224     | 212     | NC               | NC       |
| High estimate   | 940     | 775     | 749     | 740     | NC               | NC       |

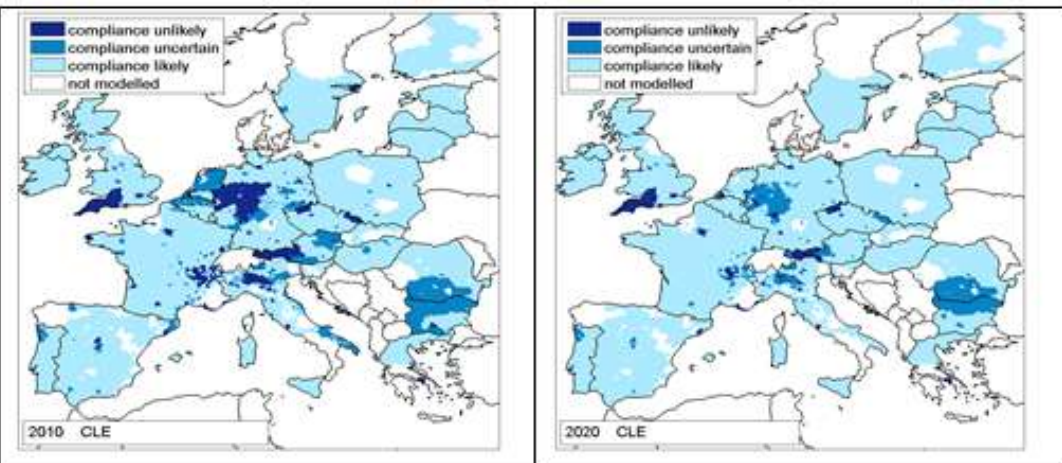
# How will the problem evolve?

## PM10



**Compliance with EU limit AQ  
limit values in AQ management  
zones 2010 and 2020**

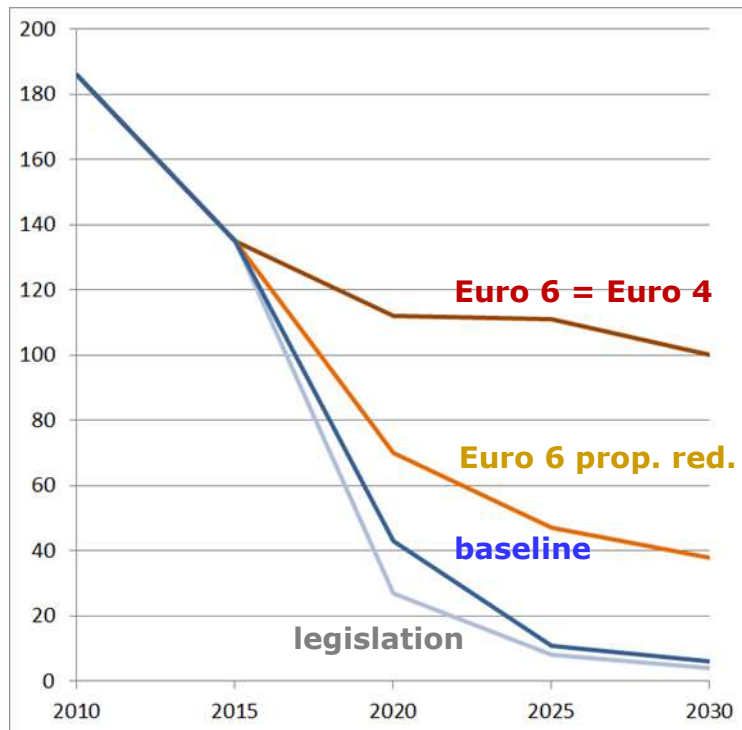
## NO2





# Exceedance of NO<sub>2</sub> limit value in EU27 –

## Stations >45 µg NO<sub>2</sub>/m<sup>3</sup>



**2010: 33% traffic stations ok**

**Baseline scenario:**

**2020: 10% traffic stations ok**

**2030: 4% traffic stations ok**

**Euro 6 = Euro 4 scenario:**

**2020: 23% traffic stations ok**

**2030: 20% traffic stations ok**

**Compliance beyond 2015 depends crucially on level and timing of real-driving emissions from Euro 6 LDDV!**

# Objectives and options

## **Objectives**

- *Pursue AQ levels that do not cause significant impacts on health and environment (EU long-term "zero impact" objective)*
- *Ensure coherence with forthcoming Climate and Energy Package*
- *Define actions for resolving present compliance problems asap*
- *Define targets for the period up to 2030*
- *Define actions for moving towards new targets*

## **Options**

- Reinforced EU/national/local action?
- Reinforced NEC and/or AAQD? (Climate and Energy?)
- Non-regulatory options?
- ...

# The preferred option pre-2020?

## ***Continued focus on implementation & review***

- **Euro 6 lab testing (2014), and Euro 6 real-world testing(2017 latest) LDV**
- *Implementing 2015 and 2020 provisions of new Sulphur Directive (IMO)*
- *Implementing updated BAT conclusions under new IED*
- *Adapting NECD to new Gothenburg Protocol*
- *Eco-design Directive (small, and medium scale combustion installations)*
- *Revision of Non-Road Mobile Machinery Directive*
- *Fertiliser Directive (proposal expected in 2014)*

## ***Renewed support for local/national actions***

- *Reinforced capacity-building (new LIFE+,...)*
- *Reinforced national and local action toolbox (retrofitting, NECA/SECA, SULEV, ...)*
- *Reinforced impetus for sustainable urban mobility and energy plans?*
- *Enhanced Public and Stakeholder Awareness?*
- *Special targeted actions (fuel switching, ...)*
- *Where possible funding for addressing air quality directly and through mainstreaming in Structural Funds*

# What may a new policy deliver ?

## ***Updated objectives and strategy for period up to 2030***

- *New Health & Environment Impact Reduction Targets*
- *New National (and Sectoral ) Emission Reduction Targets*
- *New Monitoring and Evaluation provisions*

## ***Regulatory action plan***

- *Proposal for amending the National Emission Ceilings Directive [2013]*
- *Proposal for regulating medium scale combustion installations [2013]*
- *Proposal for amending the Ambient Air Quality Directives [TBD]*
- *Other [TBD]*

## ***Non-regulatory action plan***

- *Urban Clean Air Programme*
- *Agriculture Clean Air Programme*
- *International Clean Air Programme*
- *Clean Air Research and Innovation Agenda*
- *European Clean Air Forum*
- *...*



# The Air Implementation Pilot

*Aim: better understand the challenges cities face in implementing air quality policy, and encourage sharing experiences and learning from each other what works and what not*

*Participants: Commission, EEA and 12 cities representative of Europe's urban areas*

*Links with APPRAISAL, OPERA, ATMOSYS, LIFE+ etc*

## Five work streams

- 1. Local emission inventories*
- 2. Modelling and the use of air quality models*
- 3. Monitoring networks*
- 4. Air quality management*
- 5. Public information*





# Lessons from the Air Implementation Pilot

*Need for synthesis and coherence of legislation and Air Quality plans in Member States (from national to local level)*

*Need for a database on air quality measures*

*Financial needs – addressed through*

*-national means*

*-LIFE+ (2017 to 2020) traditional and integrated projects*

*-structural funds and Partnership agreements*



# Expectations

*Share experience on integrated assessment in EU to local air quality policy.*

*Create the links and synergy between the EU level and the local action.*

*To identify effective measures needed for compliance with EU legislation in the short term and EU long-term policy objectives in the long term.*

*To identify the gaps in the current policy application of IAM and ways to fill those gaps.*

