



Update on the Clean Air for Europe Programme

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Clean Air Policies in Europe – An Overview

The **international** context

- **UN ECE Convention on Long-Range Transboundary Air Pollution (CLRTAP)** and its Protocols (e.g. Gothenburg Protocol for 2010 and 2020)

The main **European Union** air policy instruments

- **Ambient Air Quality Directives (AAQD)**: Maximum concentrations to be attained across the EU (SO₂, NO₂, PM₁₀, benzene, lead, CO, O₃, arsenic, cadmium, nickel, PM_{2.5} and BaP)
- **National Emission Ceilings Directive (NECD)**: National emission inventories and caps to limit transboundary pollution (SO_x, NO_x, NMVOC, and NH₃):
- **Source-specific performance standards**: Euro and fuel standards, Industrial Emissions Directive, energy efficiency standards, etc.

The main **Member States** air policy instruments

- Air Quality Plans & Programmes (AAQD)
- National Emission Inventories, Projections, and Measures (NECD)
- ...

Air pollution is still a problem across Europe

Europe's air quality is slowly improving, but fine particulate matter and ground-level ozone in particular continue to cause serious impacts on health.

Estimates point to well above 400.000 premature deaths in EU-28 each year due to particulate matter; and more than 15.000 due to ground-level ozone.

3 out of 10 EU citizens are exposed to particulate matter concentrations above the EU limit value; with 9 out of 10 exposed above WHO guidelines.

Assessed against EU Limit Value



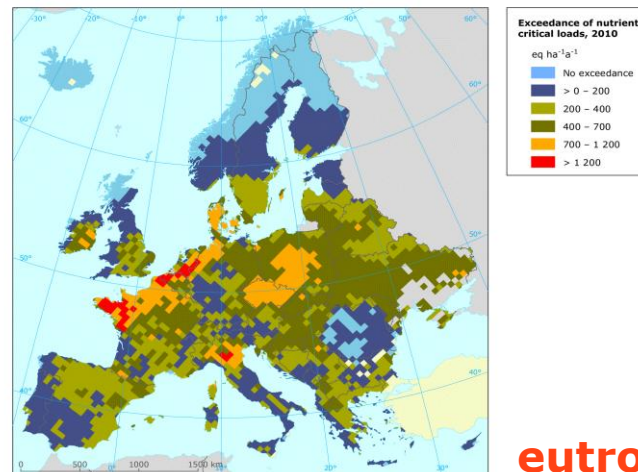
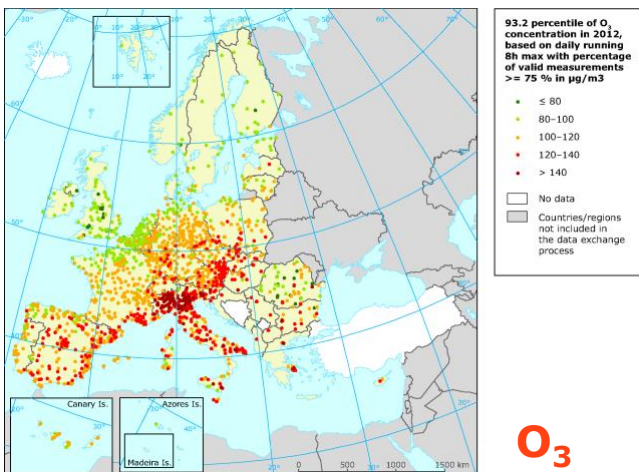
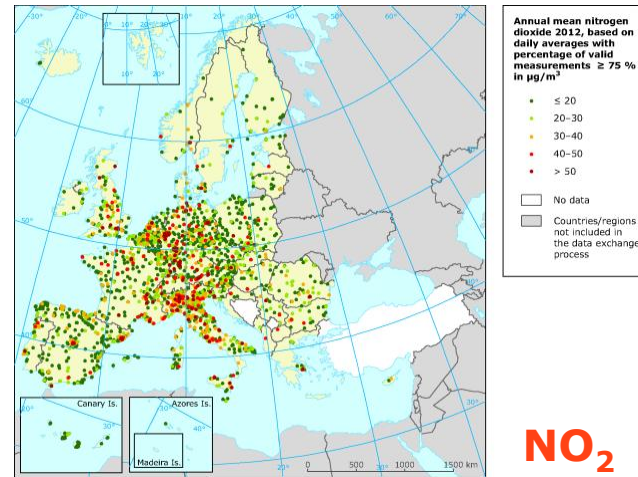
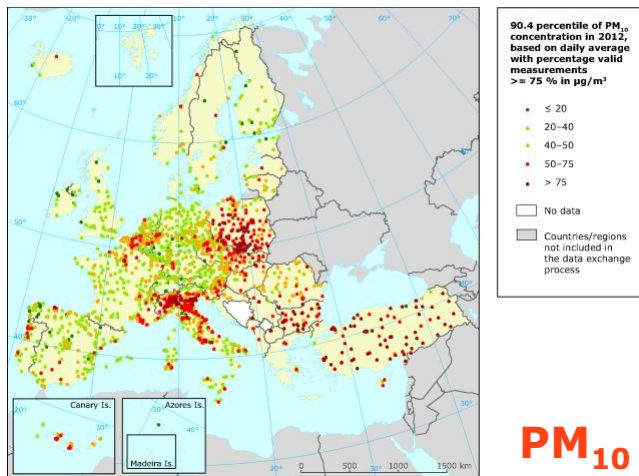
Assessed against WHO Guidelines



63%

Air pollution exceeds eutrophication limits in 63% of ecosystem area, and in 73% Natura2000 area.

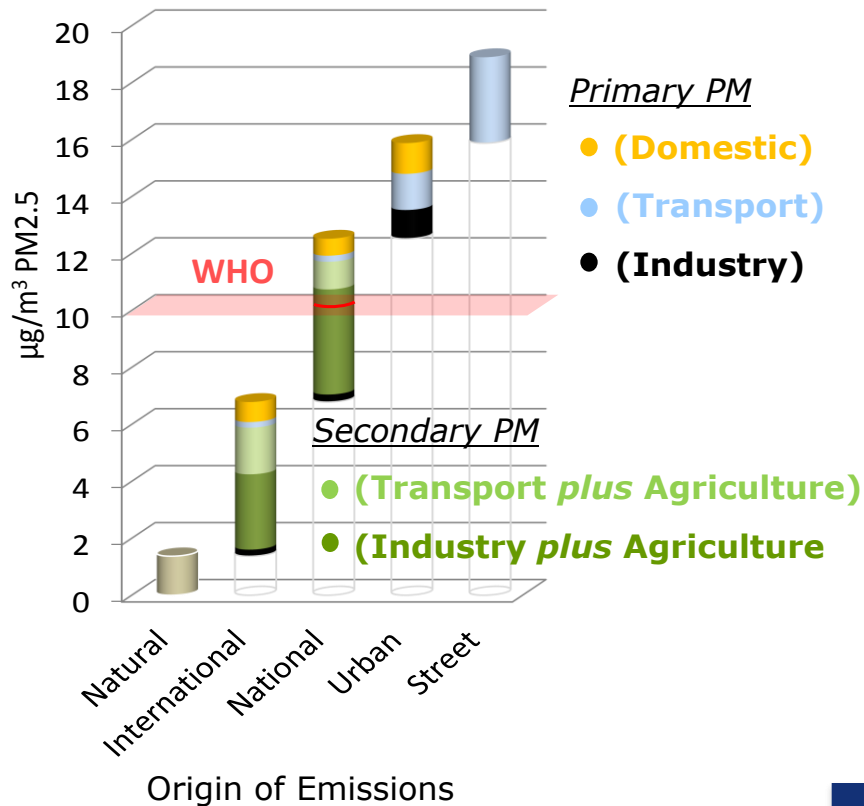
Where is air pollution a problem?



Who and what causes air pollution?

Particulate Matter (PM_{2.5})

e.g. Germany, 2009 -



Sulphur dioxide (SO₂)

- Energy sector, Transport, ...

Nitrogen oxides (NO_x)

- Transport, Energy, Industry, ...

Ammonia (NH₃)

- Agriculture (Livestock & Fertilizers), ...

Volatile Organic Compounds (VOC)

- Solvents, Paints, Transport, ...

Methane (CH₄)

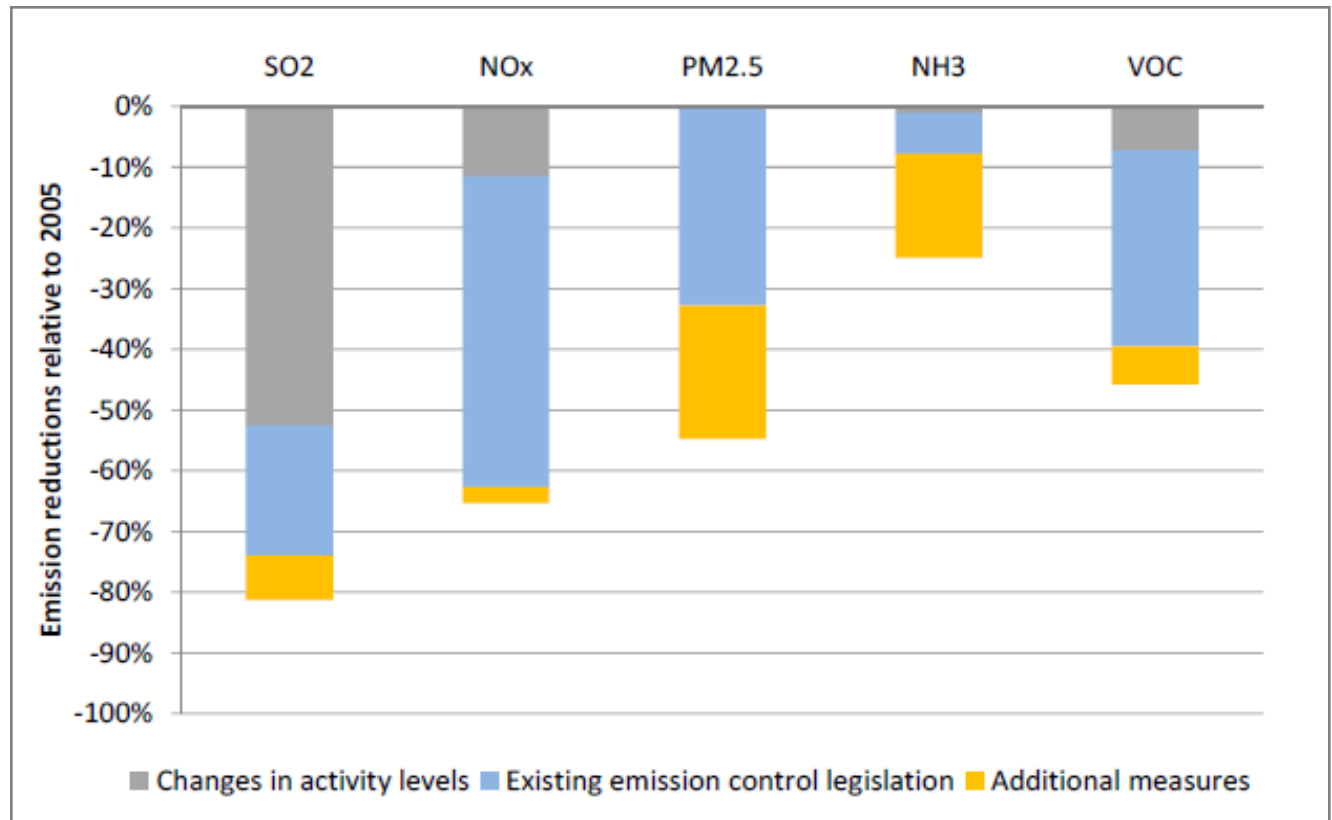
- Agriculture, Waste, Energy, ...

Clean Air Programme - Strategic Ambitions

Year	Health impact (premature deaths) reduction vs 2005	Ambient air quality standards and compliance
2020	33%	Full compliance with existing ambient air quality legislation (including NO ₂ , PM ₁₀ and PM 2.5)
2030	52%	Most Member States would reach PM 2.5 levels below or close to the WHO guidelines of 10 µg/m ³

National Emission Ceiling Directive

	2020	2030
SO ₂	59%	81%
NO _x	42%	69%
VOC	28%	50%
NH ₃	6%	27%
PM _{2.5}	22%	51%
CH ₄	-	33%



National Emission Ceiling Directive

Costs

- Implementation cost:
€2.2 billion per year

The effort for the new policy (in cost terms) is split:

- 40% - domestic sector
- 37% - industrial sector
- 23% - agricultural sector



Benefits

- Indirect economic benefits:
€44-140 billion per year
- Direct economic benefits:
€3 billion per year
- 52% less health damage;
- 35% less eutrophication;
- 85% less acidification.

Some reflections in an ObsAIRrve context

Air pollution had been considered largely solved except for some local problems

- Frequent and often serious air pollution episodes proved this perception wrong
- Air pollution is less visible but remains the #1 environmental cause of death

National authorities often subdelegated responsibilities to local authorities whilst downsizing national capacity and involvement

- Remaining air pollution hotspots in the EU cannot be solved by "local" measures only
- The governance deficit continues to prevent steady progress in reducing air pollution
- Fixing the governance deficit is key to resolving compliance problems and reducing air quality impacts

The EU leads on air quality and emission performance standards which harms the economy

- Several EU air quality standards lag behind the WHO recommendations and major trading partners
- If the NECD were adopted as proposed, air quality levels in the EU would move close to WHO levels
- *The benefit to cost ratio for the NECD exceeds a factor 10*
- *There is no compelling evidence that EU air quality policies hampered growth, investments, and jobs*



More Information

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

Feedback

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Thank you!

European Commission

DG ENV C.3

Air

Source-specific performance standards

Industrial Emission Directive, Industrial Emissions Performance Standards
Ecodesign and Eco-Label standards, BATs and BREFs, ...

Medium Combustion Plants Directive addresses installations at 1-50 MW,
setting fuel-specific emission limit values (focus on SO₂, NO_x and PM), ...

Road transport including type approval standards for vehicles, ensure real
driving emission meet Euro 6 standards, ...

Non-Road Mobile Machinery (NRMM Directive) type approval standards, fuel
quality standards (e.g. sulphur in liquid fuels) to reduce shipping emissions ...

Ambient Air Quality Directives

Compliance gap persists, only 3 countries reporting no exceedance (2013).

Regarding **NO₂**: 17 Member States have reported excess levels since 2010, and infringement proceedings have already been opened against 6 Member State.

Regarding **PM₁₀**: 16 Member States are facing infringement actions at various stages. First cases will now be brought to Court.

Regarding **PM_{2.5}**: Annual limit value applies as of 1 January 2015.

Directive ‘**kept under review**, with a view to revision once the NECD’ is agreed.