



# **The EU perspective on how to address Air Quality in the coming years**

1<sup>st</sup> midterm conference LIFE IP PREPAIR

Milan, 11 July 2019

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European Commission  
DG Environment, Clean Air

# Increased awareness of air quality urgencies

**BBC NEWS**

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**Science & Environment**

**Polluted air causes 5.5 million deaths a year new research says**

By Jonathan Amos  
BBC Science Correspondent, Washington DC

© 13 February 2016 | Science & Environment | 84



**M Pollutions** **Le Monde.fr**

PLANÈTE POLLUTIONS

**Nouveau pic de pollution à Paris**

Le Monde | 20.01.2016 à 08h26 • Mis à jour le 20.01.2016 à 10h29



Le stationnement résidentiel est gratuit, mercredi 20 janvier à Paris, en raison d'un nouvel épisode de pollution atmosphérique. Airparif, l'association de

**Städtische Zeitung**  
SZ.de Zeitung Magazin

Politik Wirtschaft Panorama Sport München Bayern Kultur Wissen Digital Chancen Reise Auto Stil mehr...

5. Februar 2016, 18:48 Uhr Stickoxid-Emissionen

**Die Luft bleibt dreckig - mindestens bis 2030**

Feinstaub-Alarm  
Derzeit Umweltzone Stuttgart  
Busse/Bahnen nutzen

Größtenteils wie Stuttgart selbst, besonders unter den hohen Alpenbergen, sollen mit Einführung der Umweltazone (U) jedoch keine schnelle Besserung in Sicht. (Foto: dpa)

Der Straßenverkehr ist hauptverantwortlich für die schlechte Luft in den Städten. Die Industrie sieht in modernen Euro-6-Dieseln die Lösung. Doch die sind nicht immer so sauber wie versprochen.

Analysen von Joachim Becker

Wyborcza.biz / Wyborcza.biz / Ekologia / Odszybał po ketchupu

**Wojna ze smogiem**

Dominika Wantuch 01.02.2016 01:00



Smog w Krakowie, styczeń 2014 (MICHAŁ LEPECKI)

Najgorzej jakości węgiel i przestarzałe piece idą w odstawkę. Po Krakowie uchwalił antysmogowych chcą władze Wrocławia i Legnicy, a marszałek Śląska przepisał antysmogowymi zamierza objąć ponad 160 gmin.

**EL PAÍS**

ESPAÑA · Madrid

CONTAMINACIÓN

**La capital vulnera por sexto año seguido los límites de contaminación**

- El informe anual de Ecologistas en Acción concluye que en 2015 los niveles de contaminación han sufrido un incremento notable
- Las alertas por contaminación se vuelven cotidianas
- Intentamos pasar muy poco tiempo al aire libre

ESTHER SÁNCHEZ | Madrid | 12 ENE 2016 - 21:27 CET

Archivado en: Manuela Camena Contaminación atmosférica Madrid Comunidad de Madrid Contaminación Ayuntamientos Problemas ambientales Gobierno municipal



**the guardian**

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**Pollution**

**London takes just one week to breach annual air pollution limits**

Parts of the capital have already breached EU hourly limits for nitrogen dioxide pollution which causes thousands of premature deaths each year



City High Street in London breached annual limits for nitrogen dioxide early on 8 January. (Photograph: Peter Macdonald/Getty Images)

Adam Vaughan  
@adamvaughan\_uk  
Friday 8 January 2016 10:58 GMT

**LE SOIR**

Actu Sports Culture Économie Débats Blogs Images

13° min 9°

-0.41% BEL 20 14/03 11:16

**La qualité de l'air belge est l'une des plus mauvaise d'Europe**

Belga  
Mis en ligne dimanche 31 janvier 2016, 23h25

Le problème principal est celui des particules fines. Les véhicules diesel sont pointés du doigt.



a Belgique est, juste derrière le Monténégro, le pays européen où la qualité

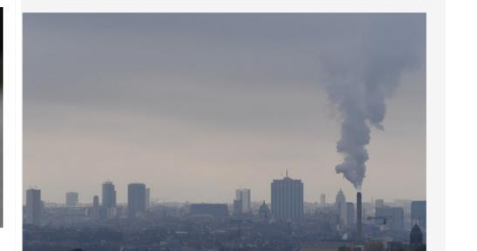
**DeMorgen**

Cult. Muziek, film, tv, expo Zine. interviews, foto, lifestyle

**Fijnstofconcentraties blijven hoog door gebrek aan wind**

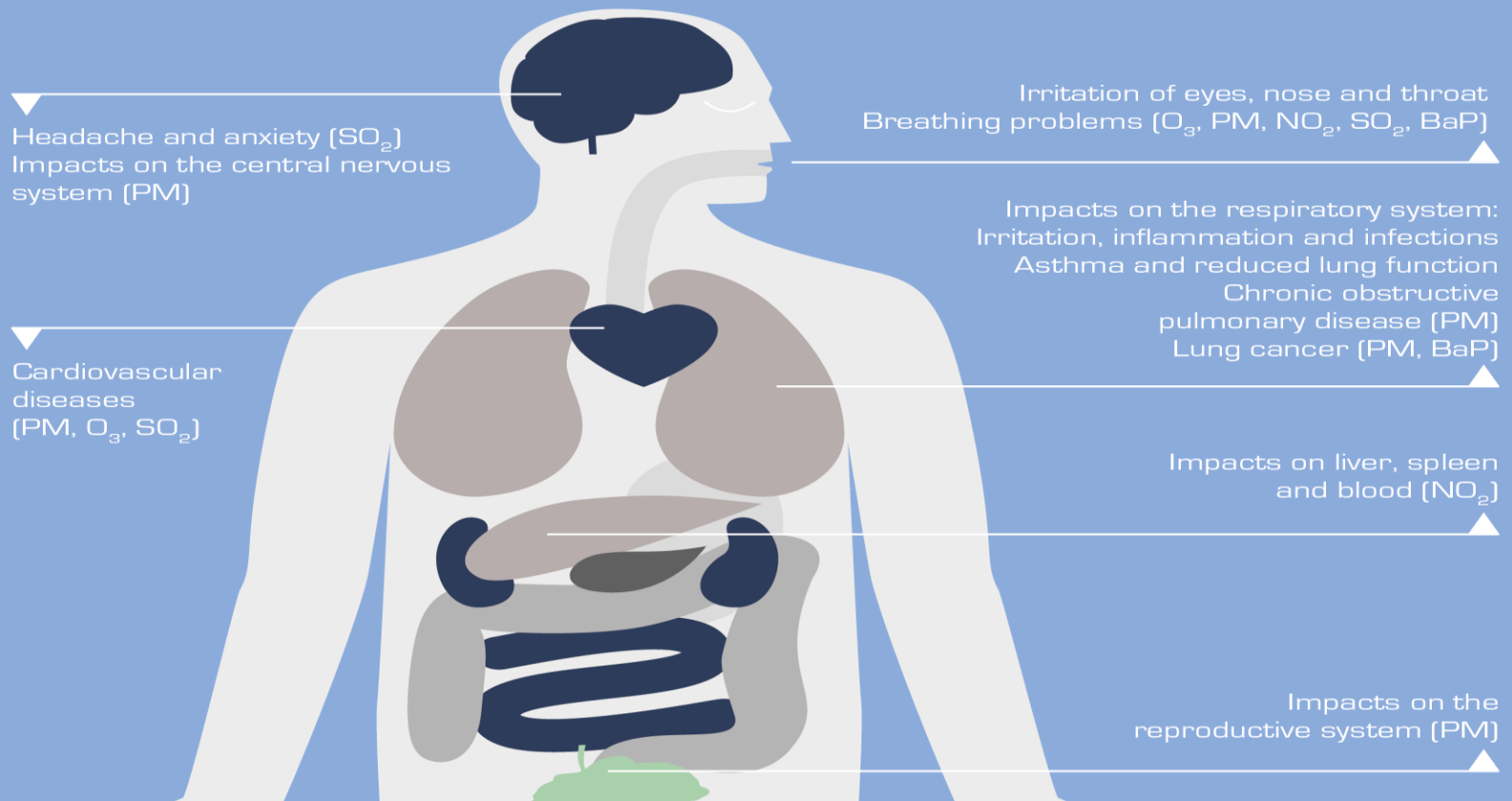
23-01-17, 14:19u • Bron: Belga

LEES LATERS



Ook maandag en de volgende dagen blijven de meteorologische omstandigheden van die aard dat de fijnstofconcentraties hoog

# Air pollution affects human health & well-being



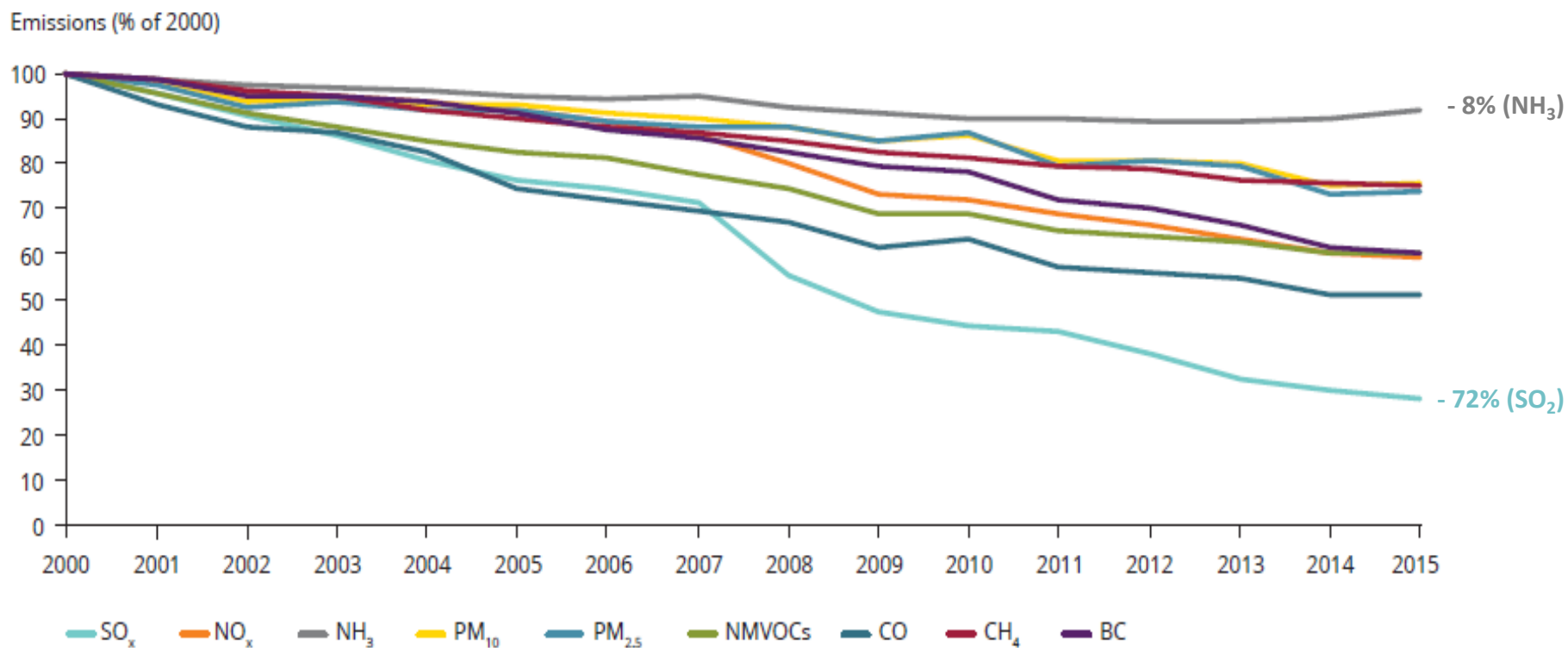
# Air pollution in Europe - Overview

Europe's **air quality is improving**; between 2000 and 2016 emissions of  $\text{NH}_3$  decreased by 9%, and of  $\text{SO}_2$  emission even by 76% ... **yet still** there are

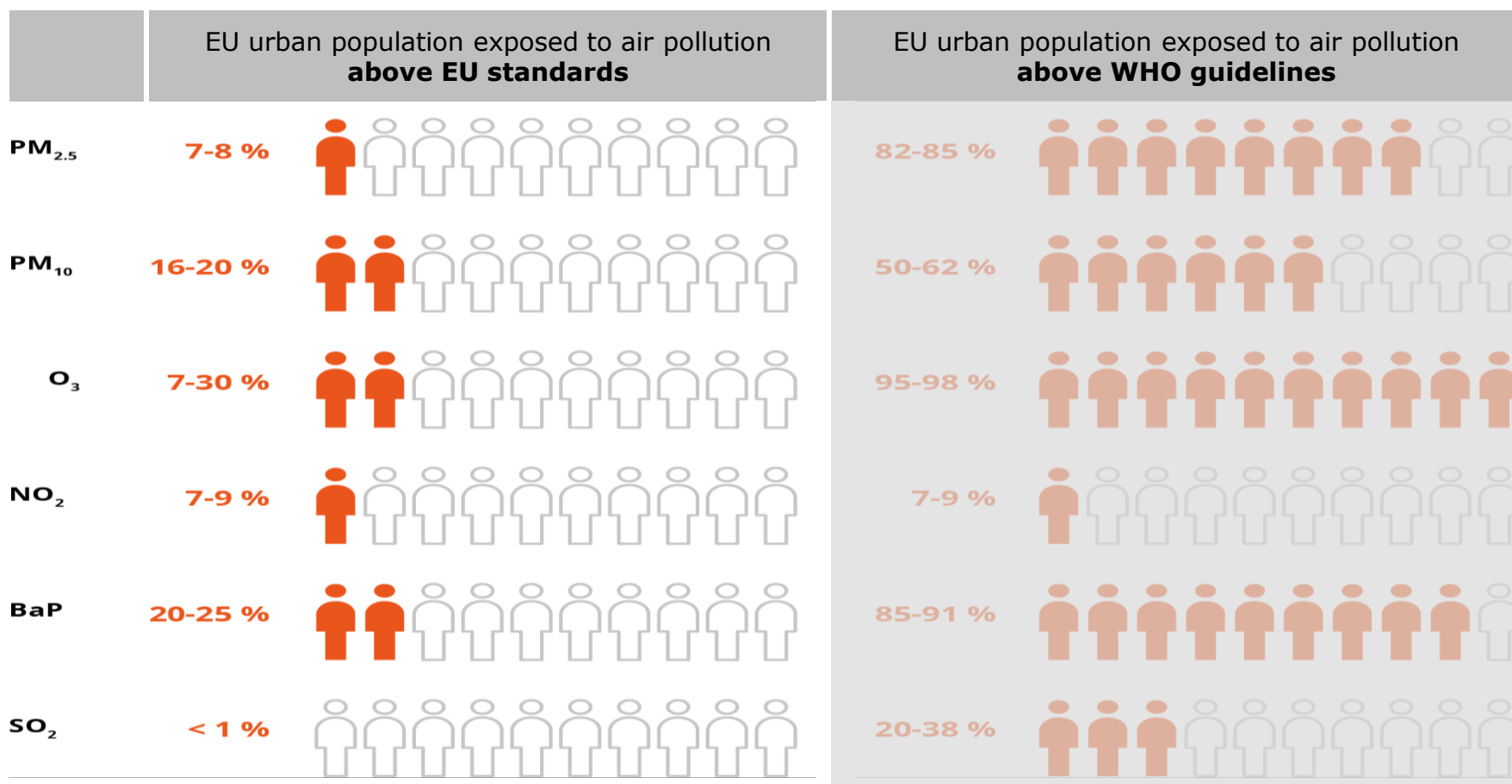
- Health impacts:**
- 391.000 premature deaths each year due to  $\text{PM}_{2.5}$
  - 69.000 premature deaths each year due to  $\text{NO}_2$
  - 16.400 premature deaths each year due to  $\text{O}_3$
  - 17% of all lung cancer deaths are due to air pollution
- Economic impacts:**
- More than € 24 billion per year in 'direct costs'
- Environmental impacts:**
- Eutrophication limits exceeded in 72% of ecosystem area in the EU, and in 78% of Natura2000 area

# National Emissions Ceilings Directive

Development in EU-28 emissions, 2000-2015 (as % of 2000 levels)

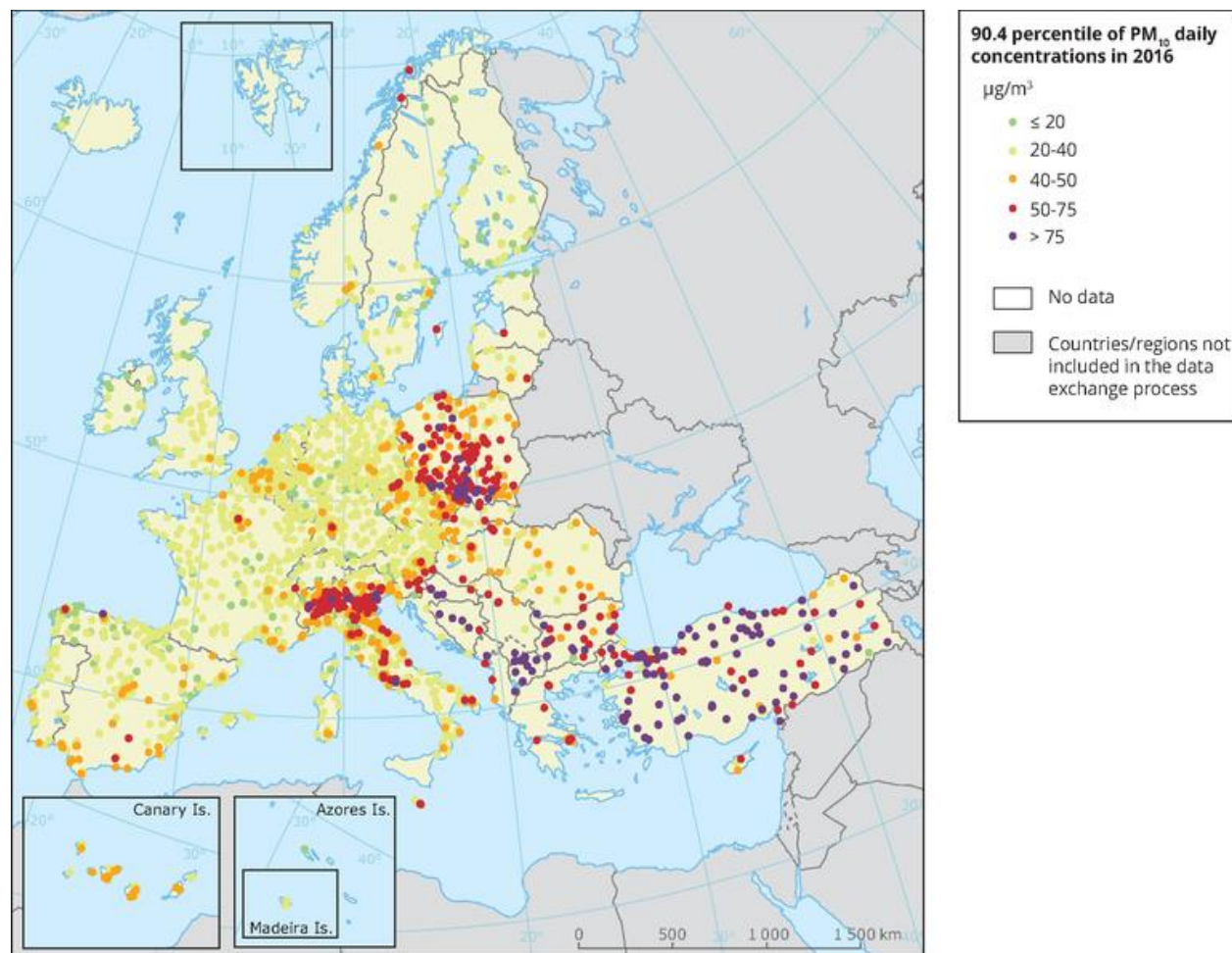


# Air pollution is a health challenge



## PM<sub>10</sub> (2016)

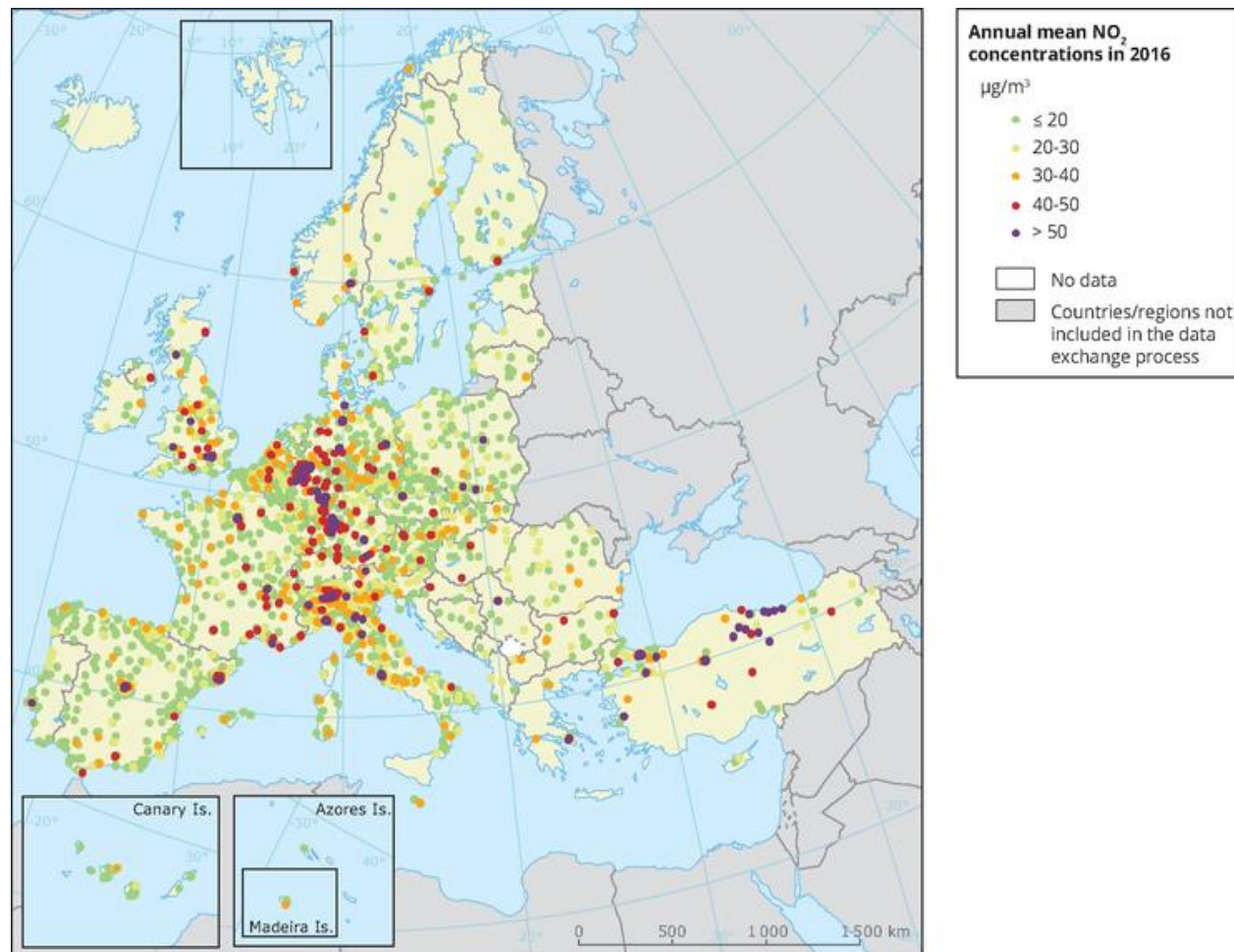
PM<sub>10</sub> exceedances  
are often linked to  
fuel combustion  
(i.e. energy,  
heating, transport)





## NO<sub>2</sub> (2016)

**NO<sub>2</sub> exceedances**  
are often linked to  
traffic, in more than  
130 cities in EU.





# EU Clean Air Policy Framework (1)



## Air Quality Directives

Maximum concentrations of  
air polluting substances

## CONCENTRATIONS

## EMISSIONS



## National Emission Ceilings Directive

National emission totals  
(SO<sub>2</sub>, NO<sub>x</sub>, VOC, PM<sub>2.5</sub>, NH<sub>3</sub>)

## Source-specific emission standards

- IED Directive
- MCP Directive
- Eco-design Directive
- Energy efficiency
- Euro and fuel standards

# EU Clean Air Policy Framework (2)

## 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 (SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, benzene, lead, CO, O<sub>3</sub>, arsenic, cadmium, nickel, PM<sub>2.5</sub> and BaP) (fitness check; SHM 15 January 2019)
- **National Emission Ceilings Directive (NECD)**: National emission inventories and caps to limit transboundary pollution (SO<sub>2</sub>, NO<sub>x</sub>, NMVOC, PM<sub>2.5</sub> and NH<sub>3</sub>)
- **Source-specific performance standards**: Euro and fuel standards, Industrial Emissions Directive, Medium Combustion Plants Directive, Ecodesign standards, etc.

## The main **Member States** air policy instruments

- Air Quality Plans & Programmes (AAQD), National Air Pollution Control Programmes (by April 2019, NECD)
- National Emission Inventories, Projections, and Measures (NECD)
- Fiscal measures, urban mobility measures, market surveillance, ...

# Fitness Check – Ambient Air Quality Directives

**Purpose:** Evidence-based analysis of whether EU actions are fit for purpose, and identify excessive regulatory burdens, overlaps, gaps, inconsistencies and/or obsolete measures

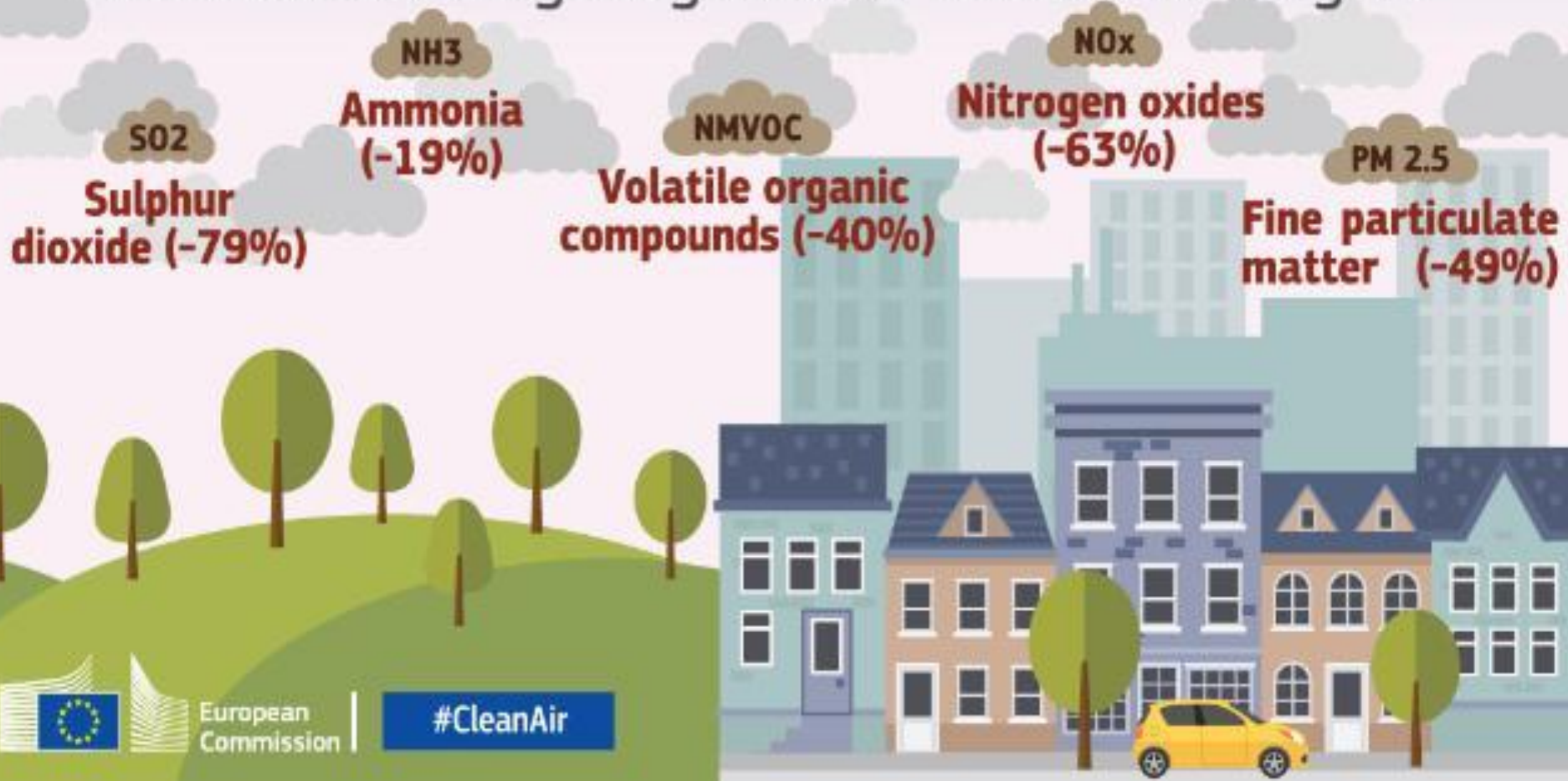
**Scope:** EU Ambient Air Quality Directives, i.e. 2008/50/EC and 2004/107/EC

**Focus:** A fitness checks is a retrospective exercise: period 2008 to 2018

**Criteria:** Relevance, Coherence, Effectiveness, Efficiency, EU Value Added

**Goal:** To inform further reflections on whether the EU Ambient Air Quality Directives provide the appropriate legislative framework - and identify learning points to guide future action

# Pollutants covered by EU National Emission Ceilings legislation and 2030 targets



# Improving air quality in cities

The Ambient Air Quality Directive requires Member States / Regions / Cities to have air quality plans to **keep exceedance as short as possible**

- General information and details on measuring stations
- Nature and assessment of pollution (incl. trends)
- Techniques used for air quality assessments
- Origin of pollution (incl. source apportionment)
- Details of measures and estimate of improvement of air quality planned, and the expected time required.



# Improving air quality in cities

Some **good practices** for cleaner air in cities (there are many more):



Reliable, affordable and clean **public transport** such as electric buses and trams and new Euro VI or retrofitted buses



**Traffic restrictions** such as low-emission zones, reduced speed limits and congestion charges



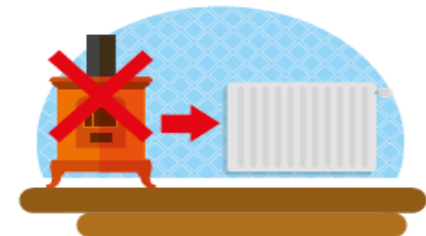
Extensive and safe **cycling networks**, abundant bike-parking facilities with easy access to public transport



**City or district heating**, using heat from existing industry or renewable energy sources



More **energy-efficient buildings**



Promoting substitution of old, dirty **stoves and oilers** with clean models, and banning **dirty fuels** for household heating/cooking



## Improving air quality

Synergies with **energy** policies ... e.g. by promoting of renewable energy, and by reducing use of coal by replacing it with cleaner fuels;

Synergies with **agriculture** policies ... e.g. by focusing on better livestock and manure management practices, and using low-emission fertilisers;

Synergies with **transport** policies ... e.g. by reducing emissions from vehicles, by setting fuel quality standards, by encouraging sustainable mobility options;

Synergies with **urban** policies ... e.g. by investing in cleaner transport options, and traffic access conditions that encourage use of low emission vehicles.

## EU air quality funding opportunities

- **Cohesion policy** (i.e. European Regional Development Fund + Cohesion Fund)
  - specific allocations for air quality; € 1.8 billion is available for 2014-2020
  - in addition, further indirect contributions can benefit air quality, e.g. from low-carbon economy (€ 45 billion), environmental protection and resource efficiency (€ 63 billion) and network infrastructure (€ 58 billion) budgets
- **Connecting Europe Facility** offers a further € 29 billion for indirect benefits, e.g. IWT, railways, intermodality, clean fuel infrastructure
- **LIFE funding** offers a further € 300 million, including for LIFE Integrated Projects (e.g. for air quality plans), LIFE pilot/demonstration projects or LIFE preparatory projects (e.g. air quality sensors)
- **EFSI funding** offers a total of € 500 billion, of which 30% have a possible air quality link (e.g. investing in energy and transport, or social infrastructure); in addition **Horizon 2020** indirectly benefits emissions reduction and air quality.

# EU air quality implementation support

## Environmental Implementation Review

- Country specific analysis, and targeted EIR dialogues
- Additional tools and funds to improve Peer-2-Peer exchange:

[http://ec.europa.eu/environment/eir/p2p/index\\_en.htm](http://ec.europa.eu/environment/eir/p2p/index_en.htm)



## Clean Air Dialogues & Clean Air Forum

- So far, dialogues with 7 Member States: IE, LU, HU, SK, ES, CZ, IT
- First Forum in Nov 2017 (measures in cities, by agriculture, 'clean tech')
- Second Forum in Nov 2019 (energy, agriculture, funding)

## Bringing together Member States, regions and cities

- EU Urban Agenda to facilitate cooperation
- Urban Innovative Actions



## Some concluding reflections

COM(2018)330 emphasizes urgent need to improve air quality through **full implementation** of air quality standards – for now, compliance gaps remain.

With the on-going Fitness Check we are seeking to understand what works well, and what could work better: **whether the Directives are fit for purpose**.

Reducing air pollution effectively requires **close cooperation** between different societal actors and across governance levels (EU, national, regional, local).

The European Commission will continue to **support Member States and neighbouring countries** – such as via the Clean Air Dialogues, or via funding opportunities, best practice and advice options.

**Feedback/questions**

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**Thank you!**