

Clean Air

The revision of the National Emission Ceilings Directive and agriculture

CDG ENVIRONMENT & CLIMATE CHANGE
8 June 2016

Increasing public awareness

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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 | 14



M Pollutions

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

Stüddeutsche 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

Geplante wie Stuttgart werden besonders unter den hohen Abgaswerten, selbst mit Einführung der Vorratzone (d) jedoch keine schnelle Besserung in Sicht. (Foto: dpa)

Feinstaub-Alarm

Derzeit Umweltzone Stuttgart Busse/ Bahnen nutzen

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

Wirtschaftsblitz / Wirtschaftsblitz / Ökologie / Ökothema / po.kulturbiz

Wojna ze smogiem

Dominika Wantuch 01.02.2016 01:00



Smog w Krakowie, styczni 2014 (MICHAŁ LEPECKI)

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

EL PAÍS

ESPAÑA · Madrid

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 EN 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

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



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

The Economist

World politics Business & finance Economics Science & technology Culture

Choking on it

While Paris focuses on climate change, air pollution kills 400,000 Europeans a year

12c 5th 2015 | KRAKOW | From the print edition

Timekeeper Like 236 Tweet

WIELICZKA, near Krakow, a handful of locals have gathered in a hotel conference

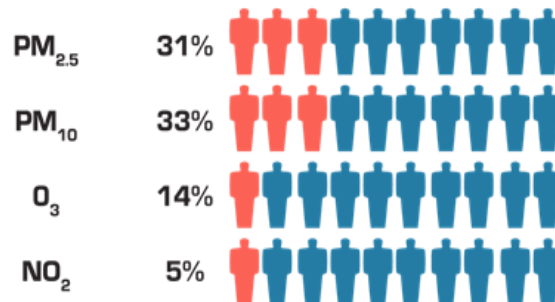


Impacts of Air Pollution in the EU

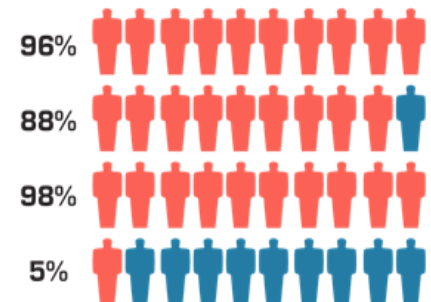
Health impacts EU

- over 400.000 premature deaths
- over 450 Million restricted activity days

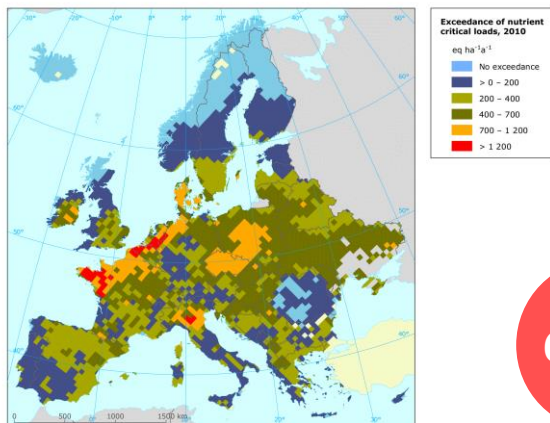
European Air Quality Values



WHO Guidelines



Population in urban areas exposed to air pollution levels above limit values.



63%

Eutrophication in the EU in 2010

Ecosystem impacts EU

- 63% of ecosystem area and 73% Natura2000 area exceeding eutrophication limits
- 9% forest and 25% lake area exceeding acidification limits

The Clean Air Policy Package

52%

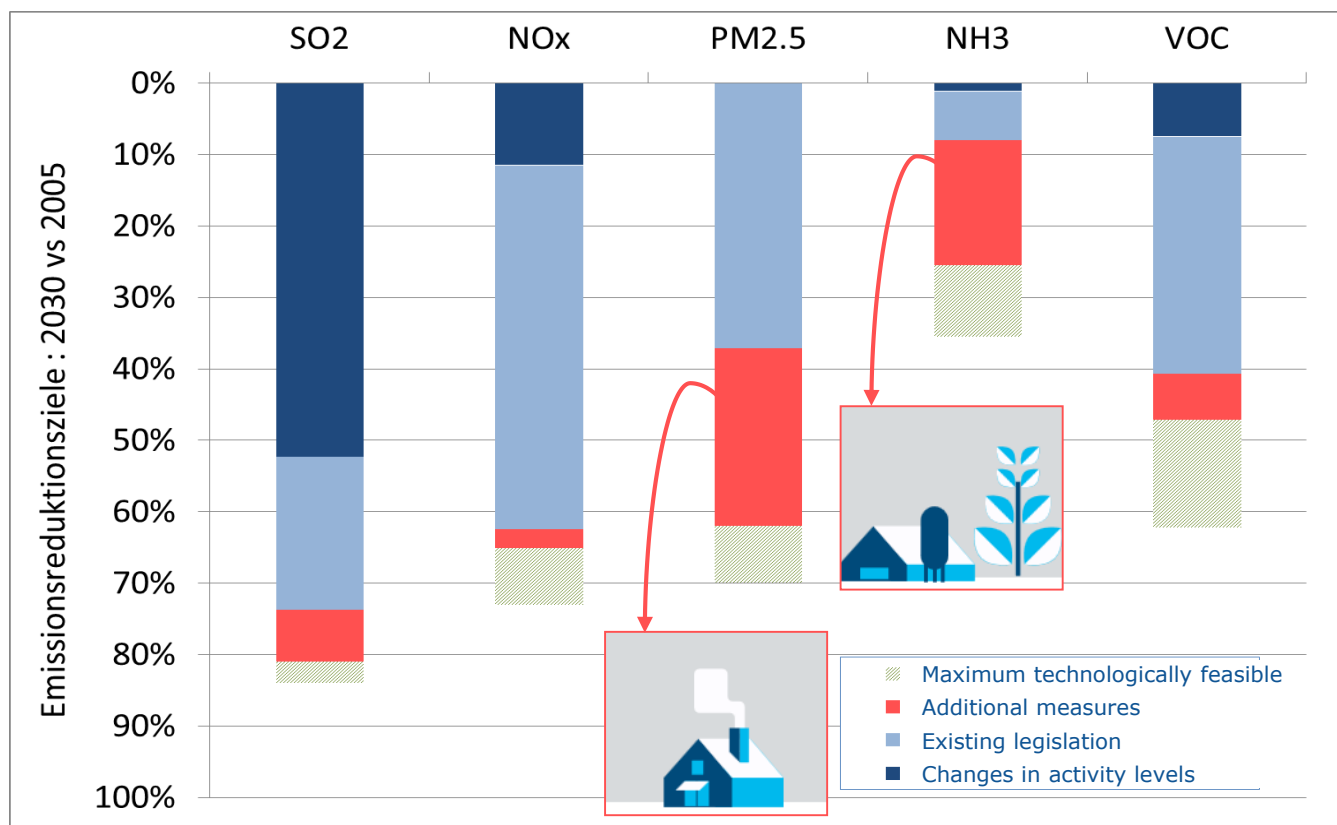
- From over 400.000 premature deaths a year now to around 200.000 in 2030 (52% reduction)
- From 463 million restricted activity days to 260 million (44% reduction)
- 35% less eutrophication (NO_x , NH_3) & 85% less acidification (SO_2 , NH_3)
- Targets existing compliance problems via lower background pollution & better governance
- Compliance costs only €2,2 bn/yr where the direct cost savings are €3 bn/yr
- External cost reductions (health only): €44 -140 bn/yr

NEC Emission reduction commitments related to 2005

	2020	2030	Δ '20-'30
SO_2	59%	81%	22%
NO_x	42%	69%	27%
VOC	28%	50%	22%
NH_3	6%	27%	21%
$\text{PM}_{2.5}$	22%	51%	29%
CH_4	-	33%	33%

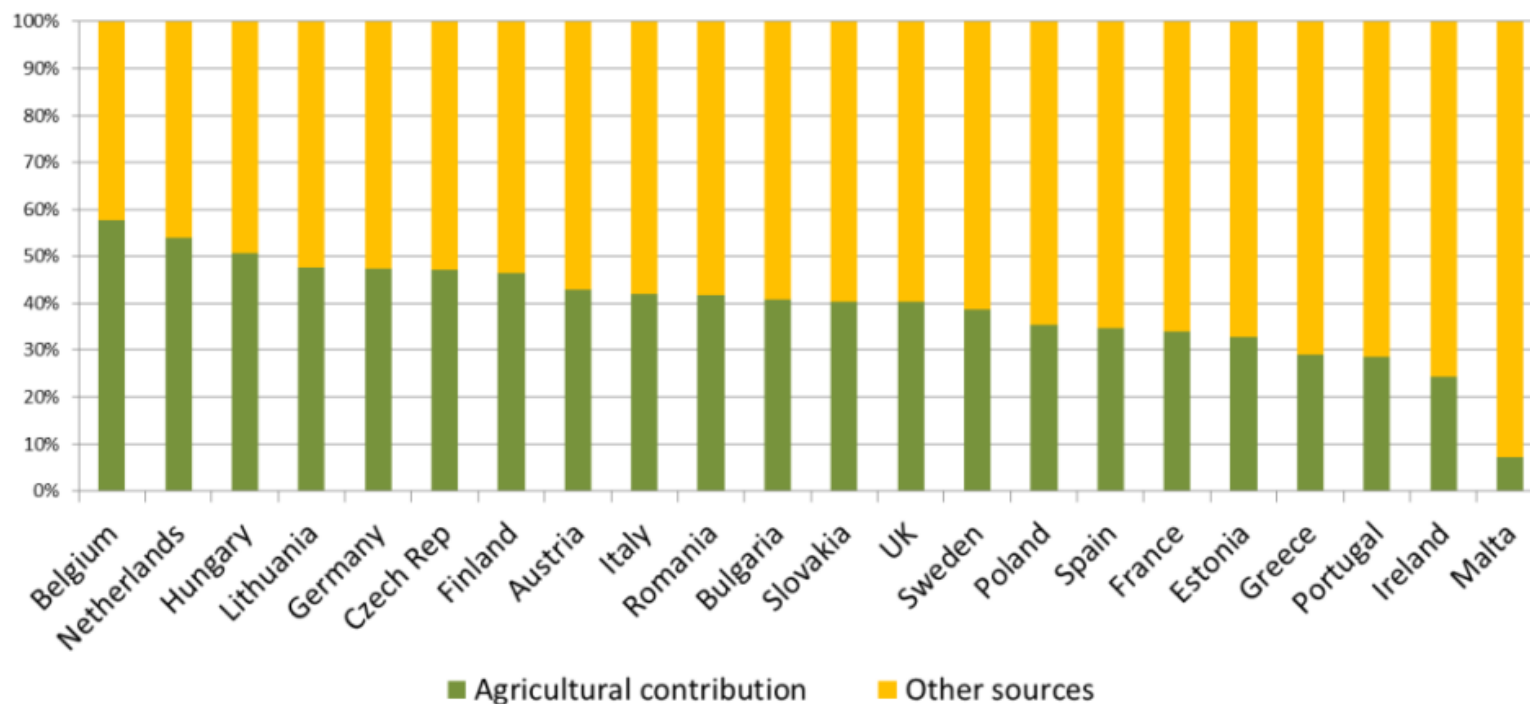
Review of the NEC

**MAIN FOCUS ON
PM_{2.5} and NH₃**



Ammonia and PM

NH₃ harms human health
by forming secondary
particulate matter (PM)



Contribution agriculture to urban PM_{2.5} levels in several
EU Member States

Key measures for NH_3 reduction

- Improved storage of manure (e.g., closed tanks) at large farms
- Improved application of manure on soil, e.g., trailing hose, slot injection (for large farms)
- Improved application of urea fertilizer or substitution by ammonium nitrate

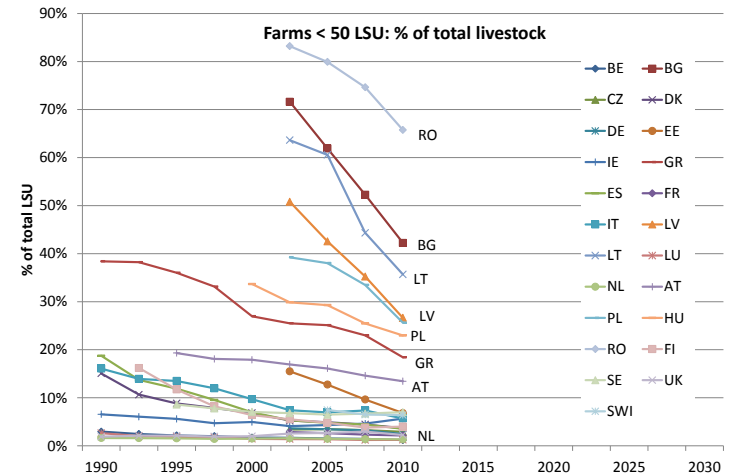
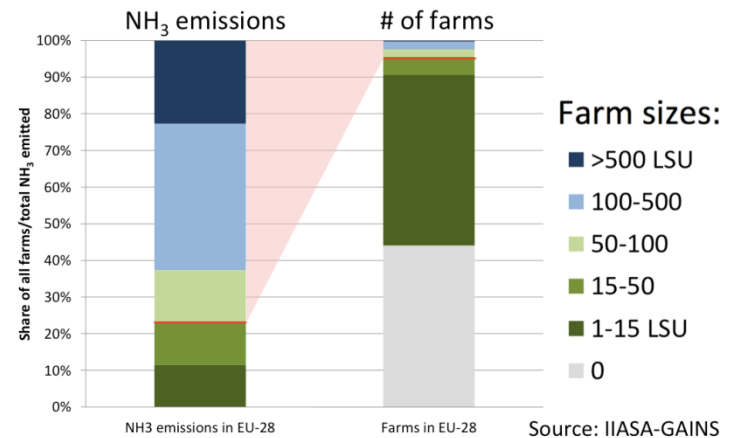


United Nations Economic Commission for Europe
Framework Code for Good
Agricultural Practice for Reducing
Ammonia Emissions



Aspects agricultural sector

- The proposal is not forcing to change to intensive farming
- The proposal is not targeting on the smallest farms
- Member States can provide support by earmarking resources under the Rural Development Funds
- Achieving reductions is possible and cost-effective and measures are already widely applied in some Member States
- Reductions in the past are fully taken into consideration



State of Play - Council

General Approach adopted 16 December 2015:

- 24 MS in favour, 3 against (AT, DK and PL) 1 abstention (DE).
- Reduction commitments weakened to **48%** health impact reduction
- Methane reduction commitments deleted
- Unbalanced effort sharing between sectors and Member States
- Additional flexibilities introduced:
 - Average of 3 years in case of a particularly cold winter/dry summer, or unforeseen economic activities;
 - Force majeure: no non-compliance when caused by a sudden and exceptional interruption or loss of capacity in the power and/or heat supply or production system;
 - Compensate non-compliance by an equivalent emission reduction (max 5 years and only for few MS with more stringent commitments than identified in TSAP 16;
 - allowing adjustments to accommodate emission factors.



48%

Commissioner Vella and LU Minister Dieschbourg
source: <http://www.eu2015lu.eu/>

State of Play - European Parliament

Vote in EP (Plenary) on 28 October 2015:

- Agreed with level of ambition for health improvement (**52%** reduction of premature deaths), including the target for NH_3
- Setting binding reductions targets for 2025
- Kept methane in, however excluding enteric methane produced by ruminant livestock.
- Better oversight on the delivery of EU source control measures + immediate action on Real Driving Emissions of Euro VI
- No new 'flexibility mechanisms'
- Setting up of the EU 'Clean Air Forum'

52%



EUobserver
@euobs



EU Parliament to vote on new #airquality rules today. Will agricultural pollutants- methane & ammonia- be included?
euobserver.com/environment/13...



Lobbyists play tug-of-war with MEPs on farm emissions

On Wednesday, the European Parliament will vote on new air quality rules. The key question is whether two agriculture-related pollutants, methane and ammonia, will...
euobserver.com

What's left for Trilogues

Already 40%
reduced burden

Discussion points for Trilogues					
	Overall health improvement	NH ₃	CH ₄	2025 target	Flexibility
COM	52%	27%-25%	In	Non-binding	Little
EP	52%	25%	In except enteric	Binding	Little
COUNCIL	48%	18%	Out	Non-binding	More

16.000 additional
premature deaths a
year in the EU

Over 4000
additional
premature deaths a
year in the EU

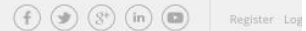
State of Play - Trilogues

First reading trilogues to find a compromise agreement between EP and Council

- 4th trilogue tonight (8 June 2016)
 - Could be settled, if not then:
- Environmental Council: 20 June 2016
- 5th trilogue before end of June
 - If then settled:
- Agreement during Dutch Presidency



euobserver



Less ambition in exchange for progress in EU air quality



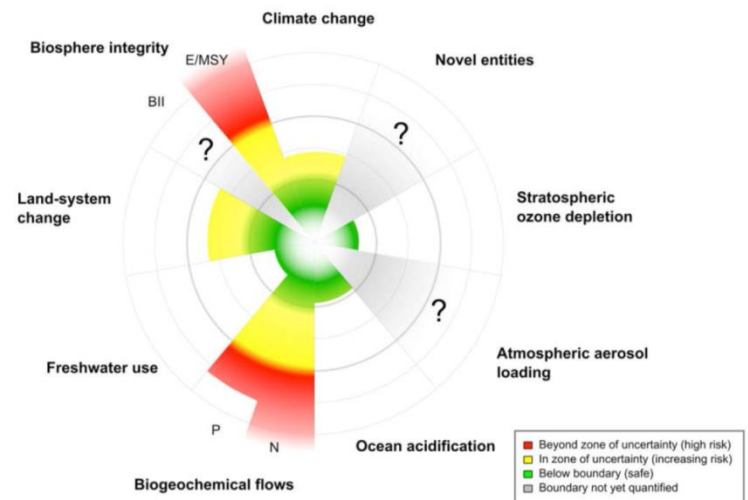
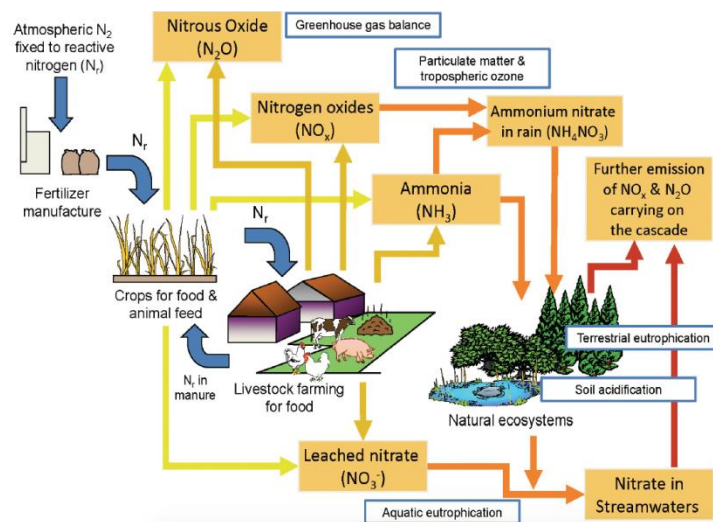
Activists demonstrated outside the EU council building in Brussels as ministers agreed to lower air quality targets.
(Photo: Peter Teffer)

By **PETER TEFFER**  

BRUSSELS, 16. DEC 2015, 19:08

After the Trilogues

- Implementation of the new NEC by the Member States
- Establishment of a Clean Air Forum (Clean Air Programme for Europe), to facilitate the coordinated implementation of EU air policies at different levels (i.e. international, national, and local scale) via a.o. structured dialogues to exchange technical knowledge and good practices.



Also check out our new Cleaner Air Infographic

http://ec.europa.eu/environment/air/cleaner_air/index.html

ENVIRONMENT

Cleaner air for all

Every year, more than 400 000 people in the EU die prematurely due to the consequences of air pollution: this is more than 10 times the toll of road traffic accidents. Another 6.5 million people fall sick as air pollution causes diseases such as strokes, asthma and bronchitis. Air pollution also harms our natural environment, impacting both vegetation and wildlife: almost two-thirds of Europe's ecosystems are threatened by the effects of air pollution.

It is time to act to prevent further damage. Find out below how the European Commission proposes to address air pollution in Europe.

introduction
air pollutants
effects
sources
origins
action
benefits
toolbox



air pollutants

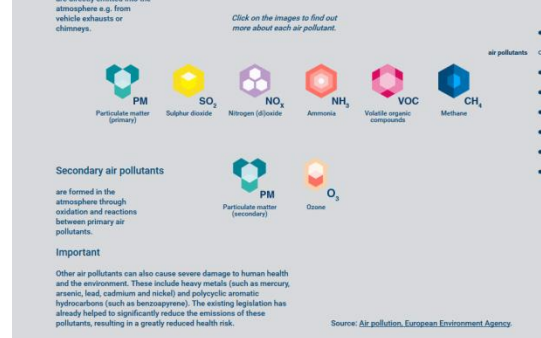
What are the main air pollutants?

Primary air pollutants
are directly emitted into the atmosphere e.g. from vehicle exhausts or chimneys.

Secondary air pollutants
are formed in the atmosphere through oxidation and reactions between primary air pollutants.

Important
Other air pollutants can also cause severe damage to human health and the environment. These include heavy metals (such as mercury, arsenic, lead, cadmium and nickel) and polycyclic aromatic hydrocarbons (such as benzo(a)pyrene). The existing legislation has already helped to significantly reduce the emissions of these pollutants, resulting in a greatly reduced health risk.

Source: Air pollution, European Environment Agency



sources of air pollution

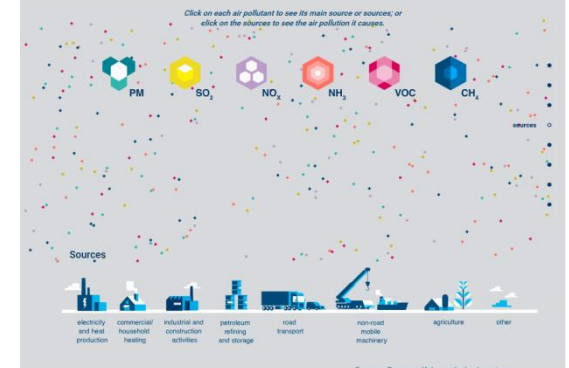
What are the main sources of primary air pollutants?

Click on each air pollutant to see its main source or sources; or click on the sources to see the air pollution it causes.

Sources

electricity and heat production
commercial household heating
industrial and construction activities
petroleum refining and storage
road transport
non-road mobile machinery
agriculture
other

Source: European Union emissions inventory



origins of air pollution

Where do air pollutants come from?

Pick your situation to see how much fine particulate matter (PM_{2.5}) on average could be in the air you breathe where you live. This provides you with a simulation of what you may experience. Note that these are just general figures and do not give the actual situation.

Choose a country and your situation


Germany 18.9 µg/m³ PM_{2.5}

The EU limit value for PM_{2.5} - 25 µg/m³ PM_{2.5} WHO guideline value: 10 µg/m³ PM_{2.5}

Natural Sources (1.4 µg/m³ PM_{2.5})
International (5.4 µg/m³ PM_{2.5})
National (5.7 µg/m³ PM_{2.5})
Urban (2.4 µg/m³ PM_{2.5})
Street (2 µg/m³ PM_{2.5})

• Natural Sources
• Industry
• Traffic
• Households
• Secondary PM (Agr + Ind + Traff)

origins



action to reduce air pollution

What are the means to reduce air emissions over the next 15 years?

In 2013, the EU proposed a Clean Air Policy Package to further reduce emissions of air pollutants until 2030. Slide the buttons to see how these reductions might be achieved.

Slide the buttons to see how these reductions might be achieved.

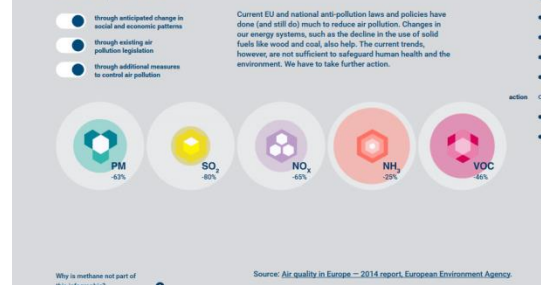
through anticipated change in social and economic patterns
through existing air pollution legislation
through additional measures to control air pollution

Current EU and national anti-pollution laws and policies have done (and still do) much to reduce air pollution. Changes in our energy systems, such as the decline in the use of solid fuels like wood and coal, also help. The current trends, however, are not sufficient to safeguard human health and the environment. We have to take further action.

PM -63%
SO₂ -80%
NO_x -69%
NH₃ -29%
VOC -56%

Why is methane not part of this infographic?

Source: Air quality in Europe - 2014 report, European Environment Agency



benefits of taking action

How would the proposed Clean Air Policy Package improve health, the economy and the environment?

The total cost to implement the Clean Air Policy Package is estimated at about €2.2 billion a year by the time we reach 2030. However, about €3.3 billion a year could be saved in direct costs otherwise caused by air pollution, plus a further €40 to €140 billion in indirect costs (for example, related to improvements in people's health). This means that the expected benefits to society are more than 20 times the cost of implementing the legislation.

Slide the button to see what could happen in 2030.

Now 2030

2030: If the new Clean Air Policy Package becomes EU rules

Health

Life expectancy shortened by: 4.1 months

Life expectancy extended by 3.3 months

224 000 Premature deaths

Economic costs of air pollution

Environment

crop yield loss
workdays lost due to sickness
direct healthcare
damage to buildings





More Information

http://ec.europa.eu/environment/air/review_air_policy.htm

Feedback

ENV-AIR@ec.europa.eu

Thank you!

Roald Wolters
European Commission
DG ENV.C.3 - Air