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department
of environmental law
and land law

# EU Air Protection

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# Structure

- Introduction
- Pillars of EU Air Protection
  - National emissions
  - Sources of pollution
  - Air quality
- CJEU Case Law



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# Key facts

- **Air pollution is one of the greatest environmental risk to health. By reducing air pollution levels, countries can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma.**
- **In 2019, 99% of the world's population was living in places where the WHO air quality guidelines levels were not met.**
- **The combined effects of ambient air pollution and household air pollution are associated with 6.7 million premature deaths annually.**
- **Ambient (outdoor) air pollution is estimated to have caused 4.2 million premature deaths worldwide in 2019.**
- **Some 89% of those premature deaths occurred in low- and middle-income countries, and the greatest number in the WHO South-East Asia and Western Pacific Regions.**
- **Policies and investments supporting cleaner transport, energy efficient homes, power generation, industry and better municipal waste management would reduce key sources of outdoor air pollution. Access to clean household energy would also greatly reduce ambient air pollution in some regions.**

NOx

M2,5

NH3

# Sources of air pollution


**Ten European cities made it under 5 micrograms $PM_{2.5}$** per cubic metre:

- Narva and Tallinn in Estonia
- Tampere/Tammerfors in Finland
- Reykjavik in Iceland
- Faro and Funchal in Portugal
- Umeå, Uppsala, Norrköping and Stockholm in Sweden

# €1 billion

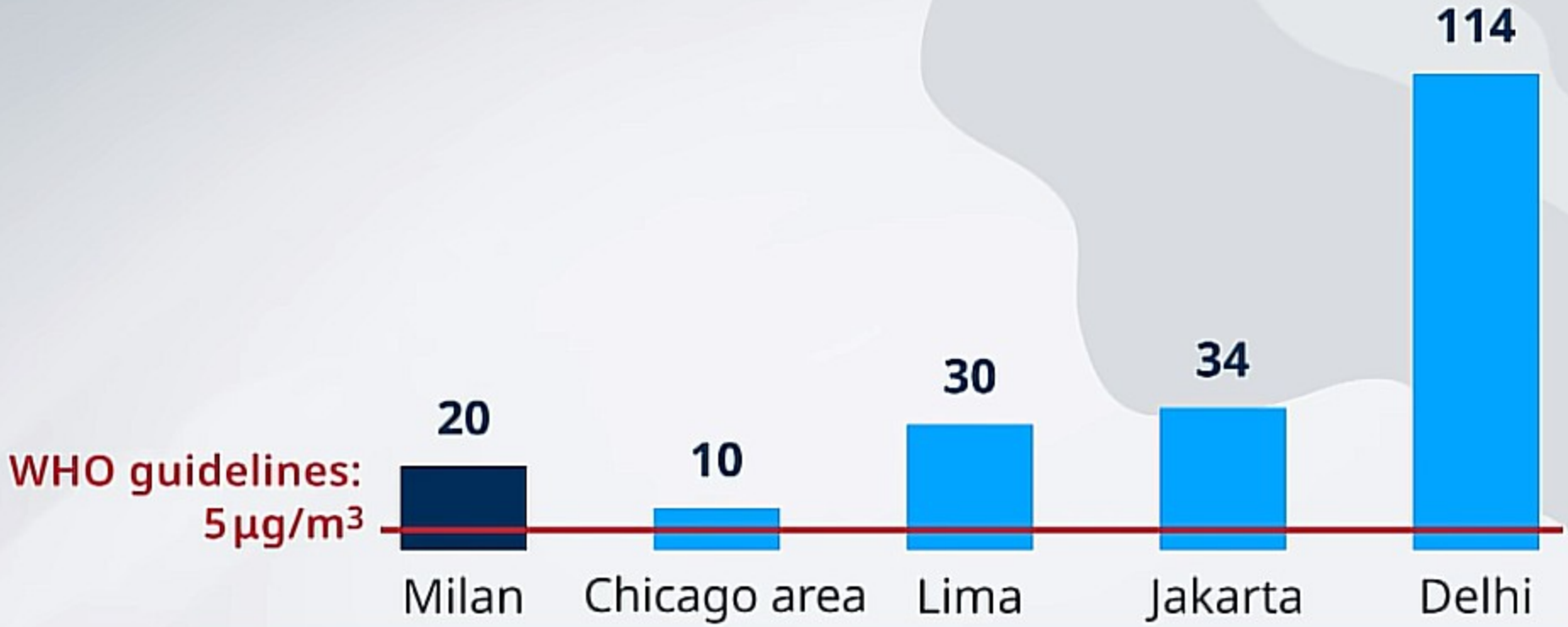
wheat yield lost in 2019 due to ground-level ozone

**Pollution substances:**

**$SO_2$** - Sulphur dioxide
**$NO_x$** - Nitrogen oxides
**$NH_3$** - Ammonia
**$PM_{2.5}$** - Primary particulate matter
**NMVOCs** - Non-methane volatile organic compounds

# Air pollution is a problem around the world

PM 2.5 concentration, µg/m³




**Air pollution in Europe often far above WHO limits**

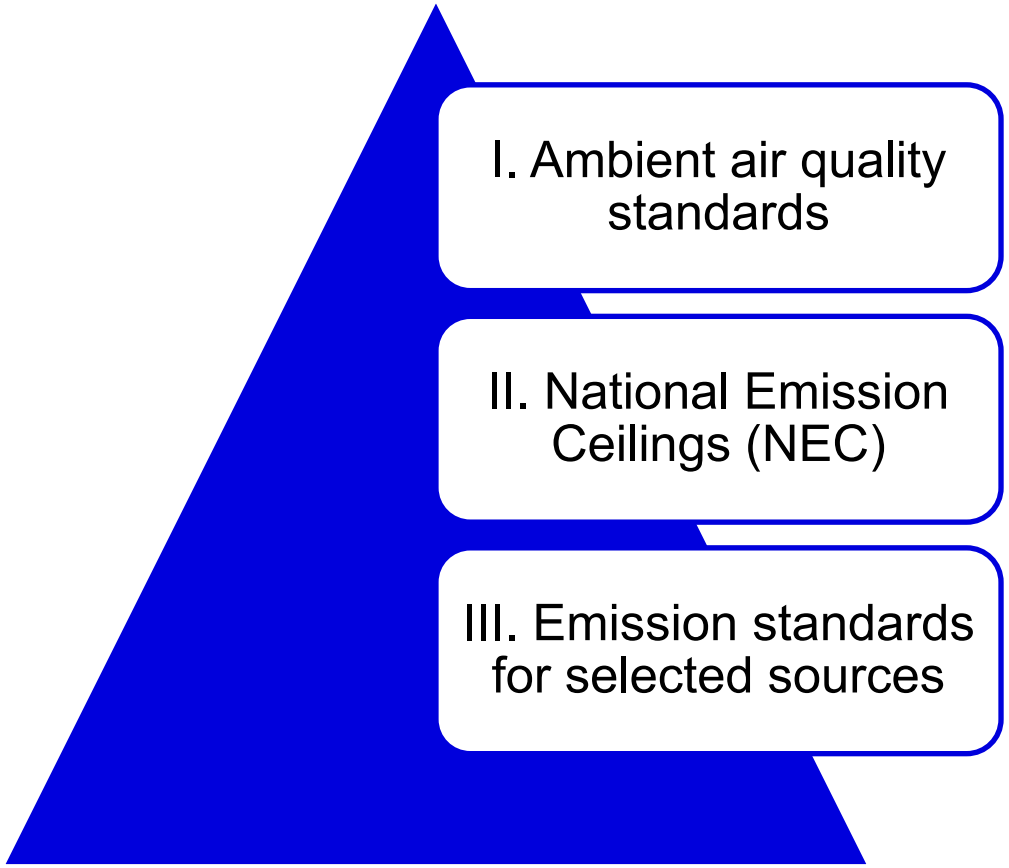
DW NEWS

dw.com | @dwnews


'Like a slow motion pandemic'

# Pillars of EU Air Protection

# EU Air protection




International cooperation on ambient air quality

# EU clean air policy


**SETTING OBJECTIVES FOR GOOD AIR QUALITY**

## Ambient Air Quality (AAQ) Directives

Maximum concentrations of
air polluting substances
($PM_{10}$, $PM_{2.5}$, $SO_2$, $NO_2$, $O_3$ + 8 more)

**REDUCING EMISSIONS OF POLLUTANTS**


## National Emission reduction Commitments Directive

National emission totals
($SO_2$, $NO_x$, NMVOC, $PM_{2.5}$, $NH_3$)

## Source-specific emission standards

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

# Ambient air quality standards

Historical overview:

- **1980** Directive on air quality limit values and guide values for sulphur dioxide and suspended particulates (80/779/EEC)

- **1982** Directive on a limit value for lead in the air (82/884/EEC)

- **1985** Directive on air quality standards for nitrogen dioxide (85/203/EEC)

- **1992** Directive on air pollution by ozone (92/72/EEC)

# Ambient air quality standards

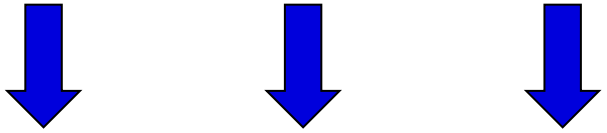
The first framework directive

Directive on ambient air quality assessment and management (96/62/EC):

- Unified measurement system (technology and location)
- Results regularly transmitted to the Commission
- Air quality information made available to the public
- Plans and programmes for zones or agglomerations with exceedances

# Ambient air quality standards

- The First Framework Directive does not contain limit values!



- Directive relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (1999/30/EC)
- Directive relating to limit values for benzene and carbon monoxide in ambient air (2000/69/EC)
- Directive relating to ozone in ambient air (2002/3/EC)
- Directive relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (2004/107/EC)

# Ambient air quality standards

(*Second*) Framework Directive on ambient air quality and cleaner air for Europe (2008/50/ES)

- Existing objectives remain the same
- New target for PM2.5
- Merges previous directives (except one)
- Possibility to deduct natural sources

x anthropogenic sources

- Introduced threshold and limit values for individual substances + possible extension of exemptions

# Air Quality Directive (2008/50)

- Types of air quality standards:
  - Limit values: *to be attained within a given period and not to be exceeded once attained* 
  - Target values: *to be attained where possible over a given period* 
  - Critical levels: *direct adverse effects may occur on ecosystems* 
  - Alert thresholds: *risk to human health from brief exposure for the population as a whole + immediate steps are to be taken*
  - Information thresholds: *risk to human health from brief exposure for particularly sensitive sections of the population + immediate and appropriate information necessary*
  - Long-term objectives (LTO), National Exposure Reduction Target (NERT), Exposure Concentration Obligation (ECO)

# EU air quality standards to protect human health

| Pollutant | Averaging time | WHO Air Quality Guidelines | EU standard | Exception from EU standard |
|---|---|---|---|---|
| $PM_{2.5}$ (µg/m³) | Annual | **5** | **25** | - |
| " | 24-hour | **15** | None | - |
| $PM_{10}$ (µg/m³) | Annual | **15** | **40** | - |
| " | 24-hour | **45** | **50** | **35 days a year** |
| $NO_2$ (µg/m³) | Annual | **10** | **40** | - |
| " | 1-hour | **200** | **200** | **18 hours a year** |
| $O_3$ (µg/m³) | 8-hour | **100** | **120 (TV)** | **75 days in 3 years** |
| $SO_2$ (µg/m³) | 24-hour | **40** | **125** | **3 days a year** |
| " | 1-hour | - | **350** | **24 hours a year** |
| " | 10-min | **500** | None | - |
| CO (mg/m³) | 8-hour | **10** | **10** | - |
| BaP (ng/m³) | 1-hour | **0.12** | **1 (TV)** | - |

- This table is a non-exhaustive list of EU air quality standards, as they compare to WHO Air Quality Guidelines of 2005 and 2021.
- WHO additionally puts forward recommendations for other averaging times for the pollutants in this table, but for which there is no equivalent EU air quality standard.
- There are further EU Air quality standards for pollutants not covered by this table, for which WHO also puts forward recommendations (e.g. reference levels for heavy metals).
- WHO Guidelines 2021 also provide good practice statements for ultrafine particles, black carbon and sandstorm dust.

# Air Quality Directive (2008/50)

- MS are to:
  - establish zones and agglomerations in their territory
  - ensure a good quality of the ambient air (e.g. not to exceed limit values) throughout all zones and agglomerations
  - establish air quality plans for zones and agglomerations where the levels of pollutants in ambient air exceed the limit value plus relevant margin of tolerance (AQPs)

# Air Quality Directive (2008/50)

- Air quality plans
  - SO2, NO2, benzene, carbon monoxide, lead, PM10,(limit values) and PM2,5 (target value)
  - Air quality plans must set out appropriate measures, so that the exceedance period can be kept as short as possible

- Requirements for AQP
  - Identification of possible measures to improve air quality
  - Detailed description of measures adopted in the plan
  - Timetable for implementation of each measure
  - Assessment of the estimated impact of each measure and of the whole plan including the identification of the expected compliance date

The AQP must demonstrate how conformity with the limit values will be achieved

The duty not to exceed limit values is based on art. 13(1)

# National Emission Ceilings

- Transposition of international commitments
  - Convention on Long-Range Transboundary Air Pollution (1979)
  - Götenburg Protocol (1999, amended 2012)
- Reducing national emissions of atmospheric pollutants (2030 target)
  - 5 pollutants (SO2, NOx, NMVOC, NH3, PM2,5)
- Directive on the reduction of national emissions of certain atmospheric pollutants (2016/2284/EU)

*Table B*

Emission reduction commitments for ammonia ($NH_3$) and fine particulate matter ($PM_{2,5}$). The reduction commitments have the year 2005 as base year, and for road transport, apply to emissions calculated on the basis of fuels sold (*2).

| Member State | $NH_3$ reduction compared with 2005 | | $PM_{2,5}$ reduction compared with 2005 | | |
|---|---|---|---|---|---|
| | For any year from 2020 to 2029 | For any year from 2030 | For any year from 2020 to 2029 | For any year from 2030 |
| Belgium | 2 % | 13 % | 20 % | 39 % |
| Bulgaria | 3 % | 12 % | 20 % | 41 % |
| Czech Republic | 7 % | 22 % | 17 % | 60 % |
| Denmark | 24 % | 24 % | 33 % | 55 % |
| Germany | 5 % | 29 % | 26 % | 43 % |
| Estonia | 1 % | 1 % | 15 % | 41 % |
| Greece | 7 % | 10 % | 35 % | 50 % |
| Spain | 3 % | 16 % | 15 % | 50 % |
| France | 4 % | 13 % | 27 % | 57 % |
| Croatia | 1 % | 25 % | 18 % | 55 % |

# Emission standards for other sources

- Transport

e.g. Regulation 2018/858 + Regulation No. 715/2007

- Agriculture

Directive 2010/75 on industrial emissions (IED)

- Electricity production and industry

Directive 2015/2193 medium sized

Directive 2010/75 on industrial emissions (IED)

# Enforcement of Air quality

# Infringement procedure

## Art. 258 TFEU

- 118 cases on air quality (24 active)

- The most recent and frequent ambient air quality cases at the Commission:

  - Exceeding limits for specific substances:
    - NO2
    - SO2
    - PM10

  - Missing transposition
    - Noise (directive 2021/1226)
    - Noise (directive 2020/367)

# CJEU Case law

- Huge number of Court cases
  - Directly concerned: 1. framework directive (16) + 2. framework directive (25)

Two types

- Air quality legislation
  - Interpretation of various provisions in AQD

- Access to justice
  - Legal standing
  - Access to courts

# CJEU Case law

- C-237/07 – Janecek
  - Legal standing + Action plans requirements

*„Thus, the Court has held that, whenever the failure to observe the measures required by the directives which **relate to air quality and drinking water, and which are designed to protect public health, could endanger human health**, **the persons concerned must be in a position to rely on the mandatory rules included in those directives** (see Case C-361/88 Commission v Germany; Case C-59/89 Commission v Germany; and Case C-58/89 Commission v Germany)* “

*„It follows from the foregoing that the **natural or legal persons directly concerned** by a risk that the limit values or alert thresholds may be exceeded **must be in a position** to require the competent authorities **to draw up an action plan** where such a risk exists, **if necessary by bringing an action before the competent courts**.“*

# CJEU Case law

- C-404/13 – ClientEarth
  - Legal standing + AQP requirements + role of national courts

*„the **natural or legal persons** directly concerned by the limit values being exceeded ... must be in a position to require the competent authorities, if necessary **by bringing an action before the courts** having jurisdiction, to establish an air quality plan which complies with the second subparagraph of Art. 23(1) of Directive 2008/50“*

*„As regards the content of the plan, it follows from the second subparagraph of Article 23(1) of Directive 2008/50 that, while **Member States have a degree of discretion** in deciding which measures to adopt, **those measures must, in any event, ensure that the period during which the limit values are exceeded is as short as possible**.“*

# CJEU Case law

- C-404/13 – ClientEarth

*„where a Member State has failed to comply with the requirements of the second subparagraph of Article 13(1) of Directive 2008/50 […],* ***it is for the national court having jurisdiction, should a case be brought before it, to take, with regard to the national authority, any necessary measure, such as an order*** *in the appropriate terms, so that the authority establishes the plan required by the directive in accordance with the conditions laid down by the latter“*

# CJEU Case law

- C-723/17 – Craeynest
  - Location of sampling points & compliance with limit values

„…*put into concrete terms the EU's obligations concerning environmental protection and the protection of public health, which stem, inter alia, from Article 3(3) TEU and Article 191(1) and (2) TFEU, according to which Union policy on the environment is to aim at a* ***high level of protection*** *[…]* ***and is to be based****, inter alia,* ***on the precautionary principle and on the principle that preventive action should be taken***"

# CJEU Case law

- C-723/17 – Craeynest

(rules on on the use and location of sampling points) „*contain clear, precise and unconditional obligations, which means that they can be invoked by individuals against the State*“

„*it* ***is for a national court****, hearing an application submitted for that purpose by* ***individuals directly affected by the exceedance of the limit values*** *referred to in Article 13(1) of that directive,* ***to verify whether the sampling points located in a particular zone have been established in accordance with the criteria laid down*** *in paragraph 1(a) of Section B of Annex III to the directive and,* ***if they were not, to take all necessary measures in respect of the competent national authority, such as, if provided for by national law, an order, with a view to ensuring that those sampling points are sited in accordance with those criteria***“

# CJEU Case law

- C-723/17 – Craeynest

*That interpretation of Article 13(1) and Article 23(1) of Directive 2008/50 is confirmed by the purpose of the directive. As is apparent from recital 2 and Article 1 thereof, that directive aims to protect human health and, to this end, provides for measures to combat emissions of pollutants at source. In accordance with that objective,* ***it is necessary to determine the actual air pollution*** *to which the population or part of it is exposed and to ensure that appropriate measures are taken to combat the sources of such pollution. Consequently, the fact that* ***a limit value has been exceeded at a single sampling point is sufficient to trigger the obligation to draw up an air quality plan****, in accordance with Article 23(1) of Directive 2008/50.*

# CJEU Case law

- C-177/19 P – Ville de Paris and Others
  - Legal standing of municipalities and:


„legalisation“ of illegal vehicles (= non-complying)

# CJEU Case law

- C-61/21 – Ministre de la Transition écologique and Premier ministre
  - State‘s liability

*It is true that it follows that* ***Article 13(1) and Article 23(1) of Directive 2008/50*** *[…]* ***lay down fairly clear and precise obligations as to the result to be achieved by Member States.***

*However, those obligations pursue, as is apparent from Article 1 of the directives mentioned in the previous paragraph, as well as, in particular, recital 2 of Directive 2008/50,* ***a general objective of protecting human health and the environment as a whole.***

# CJEU Case law

Failed Frankovich Liability test

*C-61/21*

*Thus, besides the fact that the provisions concerned of Directive 2008/50 and the directives which preceded it* ***do not contain any express conferral of rights on individuals*** *in that respect, it cannot be* ***inferred from the obligations laid down in those provisions****, with the general objective referred to above, that* ***individuals or categories of individuals are****, in the present case,* ***implicitly granted****, by reason of those obligations,* ***rights the breach of which would be capable of giving rise to a Member State's liability for loss and damage caused to individuals.***

*It should be added that the conclusion set out in paragraph 57 above* ***does not mean that a Member State cannot incur liability under less strict conditions on the basis of national law*** *[…] nor does it prevent, where appropriate, a failure to fulfil the obligations resulting from Article 13(1) and Article 23(1) of Directive 2008/50 or the other provisions of EU law referred to in paragraph 42 above* ***from being taken into account in that regard as a factor which may be relevant for the purposes of establishing the liability of public authorities on a basis other than EU law.***

# Air Quality and Green Deal

# Green Deal and Air Quality

Zero pollution action plan: Towards zero pollution for air, water and soil (2050).

The zero pollution vision for 2050 is for air, water and soil pollution to be reduced to levels no longer considered harmful to health and natural ecosystems, that respect the boundaries with which our planet can cope, thereby creating a toxic-free environment.

# Green Deal and Air Quality

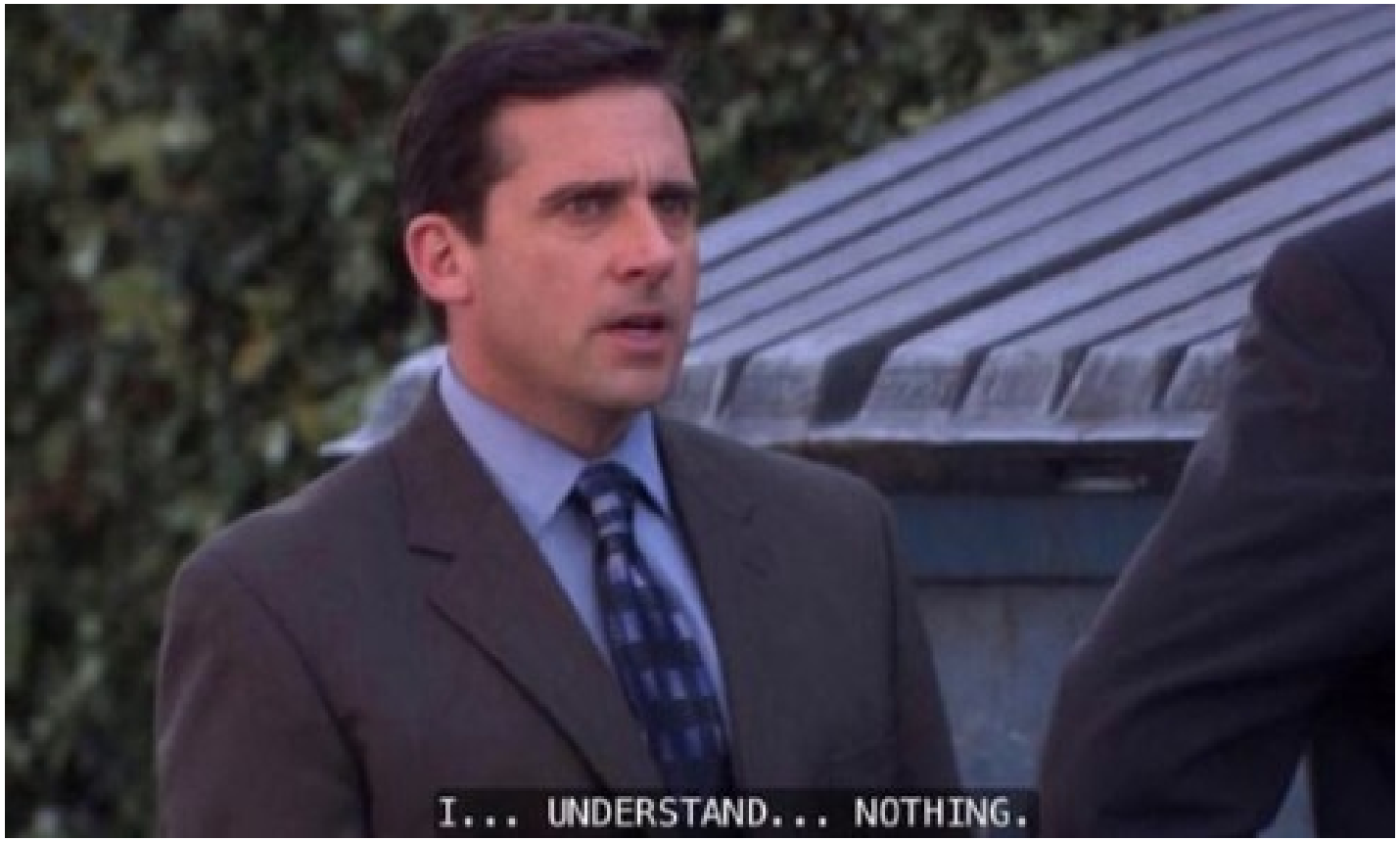

Zero pollution action plan: Towards zero pollution for air, water and soil.

- 2030 targets:
  - Improving air quality to reduce the number of premature deaths caused by air pollution by 55%
  - Improving water quality by reducing waste, plastic litter at sea (by 50%) and microplastics released into the environment (by 30%)
  - Improving soil quality by reducing nutrient losses and chemical pesticides' use by 50%
  - Reducing by 25% the EU ecosystems where air pollution threatens biodiversity;
  - Reducing the share of people chronically disturbed by transport noise by 30%,
  - Significantly reducing waste generation and by 50% residual municipal waste

# Final remarks

- We need to use all available instruments to protect air quality
  - Emission standards, AQPs, low-emission zones etc.
- MS should make bigger and better effort
- Proposal for a new AQD „in pipelines“

# Questions?

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Thank you for your attention!

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