

# Air Quality Revision of EU Rules



May 2023

*European Commission  
Clean Air & Urban Policy Unit*

*“The Commission will draw on the lessons learnt from the evaluation of the current air quality legislation.*

*It will also propose to strengthen provisions on monitoring, modelling and air quality plans to help local authorities achieve cleaner air.*

*The Commission will notably propose to revise air quality standards to align them more closely with the World Health Organization recommendations.”*

Communication on the European Green Deal (COM/2019/640 final)

**#EUGreenDeal**

# EU Clean Air Policy Milestones

## Fitness Check

(published in Nov 2019)

## Council Conclusions

## NEC Implementation Report

(Commission Communication)

## Expert consultation

(on monitoring, modelling, plans)

## WHO Guidelines publication

(postponed to II/2021)

## Zero Pollution Action Plan

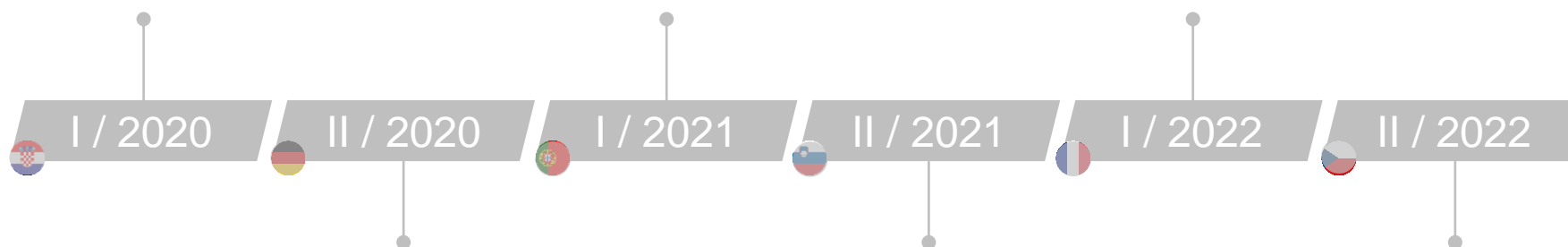
## EEA Air Quality Briefings 2022

## Targeted consultation

(air quality - revision of EU rules)

## Impact Assessment

(air quality – revision of EU rules)



EEA Air Quality Report 2020

EEA Air Quality Briefings 2021

EEA Air Quality Briefings 2022

Inception Impact Assessment  
(revising the Air Quality Directive)

WHO Guidelines publication  
(22 September 2021)

**Adoption: legislative proposal**  
COM/2022/542 final

Second Clean Air Outlook  
(Commission Report)

Public consultation  
(air quality - revision of EU rules)

**Impact Assessment Report**  
SWD/2022/545 final

3<sup>rd</sup> EU Clean Air Forum  
(18 & 19 Nov in Madrid)

Third Clean Air Outlook  
(Commission Report)

# Different policy options (example: for PM<sub>2.5</sub>)

## AMBITION LEVEL



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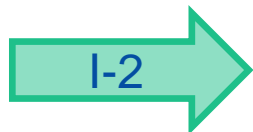
EU standards today / baseline



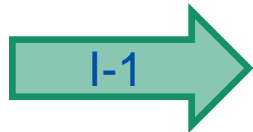
Policy option I-3



Policy option I-2



Policy option I-1



## WHO – Air Quality guidelines and interim targets for PM (annual mean)

Annual mean level	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	Mortality
Interim target 1	35	+ 24 % above guideline level
Interim target 2	25	+ 16 % above guideline level
Interim target 3	15	+ 8 % above guideline level
Interim target 4	10	+ 4 % above guideline level
AQ guideline level	5	mortality at guideline level



# Comparing policy options

All three options analysed would render **significant health and environment benefits**, which outweigh the implementation costs by 2030 – albeit to varying degrees.

**Table 17 – A Comparison of policy options on level of alignment with the WHO Air Quality Guidelines (2030)**

		Baseline	Policy Option I-3	Policy Option I-2	Policy Option I-1
Air Quality standard	PM <sub>2.5</sub>	25 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	10 µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
	NO <sub>2</sub>	40 µg/m <sup>3</sup>	30 µg/m <sup>3</sup>	20 µg/m <sup>3</sup>	10 µg/m <sup>3</sup>
Exposed > WHO levels	PM <sub>2.5</sub>	333 million	267 million	243 million	226 million
	NO <sub>2</sub>	52 million	46 million	44 million	42 million
Is the standard achievable with available measures? <sup>(a)</sup>		For >99% of PM <sub>2.5</sub> sampling points	For 99% of PM <sub>2.5</sub> sampling points	For 94% of PM <sub>2.5</sub> sampling points	For 29% of PM <sub>2.5</sub> sampling points
<b>Key economic impacts</b>					
Mitigation costs	Central	0	€3.3 bn	€5.6 bn	€7.0 bn
	If corrected for 'border cell effect' <sup>(b)</sup>	0	€1.0 bn	€5.1 bn	€7.0 bn
Gross benefits	Low <sup>(c)</sup>	0	€32.4 bn	€41.8 bn	€45.0 bn
	High <sup>(d)</sup>	0	€93.8 bn	€121.4 bn	€130.8 bn
Net benefits	Low <sup>(c)</sup>	0	€29.0 bn	€36.2 bn	€37.9 bn
	High <sup>(d)</sup>	0	€90.4 bn	€115.7 bn	€123.6 bn
Benefit-cost ratio	Low <sup>(c)</sup>	-	10:1	7.5:1	6:1
	High <sup>(d)</sup>	-	28:1	21:1	19:1
Net GDP impact		+ /- 0%	+ 0.26 %	+ 0.38 %	+ 0.44 %
<b>Key health impacts <sup>(e)</sup></b>					
Annual premature mortality	Due to PM <sub>2.5</sub>	56 100	38% less	49% less	53% less
	Due to NO <sub>2</sub>	4 050	12% less	16% less	20% less

## Key criteria:

- Achievability
- Mitigation costs
- Gross benefits
- Benefit vs Cost
- Health impact



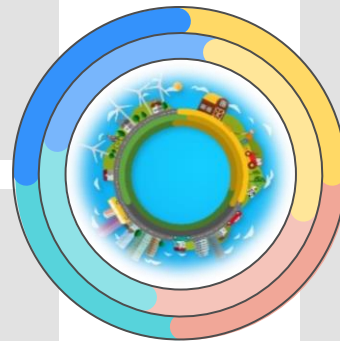
# What does our proposal improve?

## Environment & health

- **Zero pollution objective** at the latest by 2050
- **Intermediate 2030 EU air quality standards**
- Update of **other air quality metrics**, including more refined average exposure obligations
- **Regular review mechanism**

## Governance & enforcement

- Air quality plans to be more effective in **ending and preventing exceedances** of EU standards
- **Improved enforceability**: new provisions on access to justice, compensation and penalties
- More **transboundary cooperation** on air quality



## Monitoring & assessment

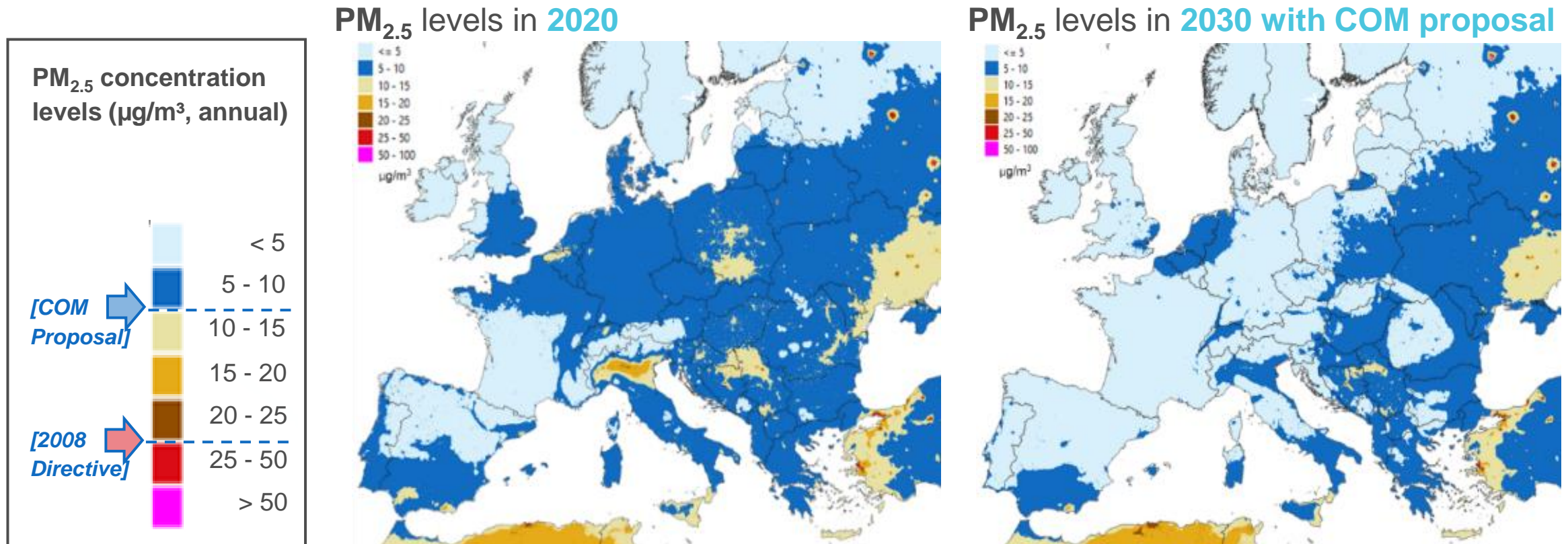
- Refined approach to **air quality monitoring**, increased use of **air quality modelling**
- Additional information on representativeness of **sampling points**, better inform air quality action
- Monitoring **pollutants of emerging concern** (e.g. ultrafine particles, black carbon, ammonia)

## Information & communication

- More **up-to-date air quality information**
- Requirements for **air quality indices** to provide hourly reporting of available air quality data
- **Informing the public** about possible health impacts and provide recommendations

# What will the proposal achieve?

First and foremost, the air quality will improve across the European Union.



Based on GAINS/EMEP/ $\mu$ EMEP. Note that these maps show the total concentration levels, and include also contributions from natural sources of wind blown dust and sea salt.

# What will the proposal achieve?

- **Health benefits:** Reduces **annual mortality** (premature deaths) linked to air pollution by more than 75% (and by 50% more than without this policy)<sup>(1)</sup>
  - also reduces **related morbidity** (illnesses) by 50% more than without this policy.
- **Social benefits:** Stricter limit values particularly protect sensitive populations and vulnerable groups; Directive requires additional health impact information.
- **Environmental benefits:** Decreases in **eutrophication (-22%)** and **acidification (-63%)** of ecosystems; less crop losses and damage to forests.
- **Economic benefits:** Benefits far outweigh the costs, with annual total gross **benefits estimated at €42 bn** (and up to €121 bn depending on the valuation method) in 2030, compared to measures that costs less than €6 bn annually.

<sup>(1)</sup> Note that these estimates refer only to health impacts above the WHO Air Quality Guideline levels. However, air pollution below these levels can also impact human health.



# EU Clean Air Policy Milestones



Contact us:

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Have your say:

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12677-Revision-of-EU-Ambient-Air-Quality-legislation>

# Thank you

