



# 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**

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

## AMBITION LEVEL



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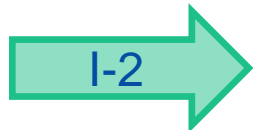
EU standards today / baseline



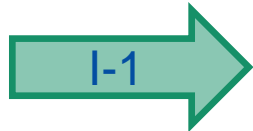
Policy option I-3



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



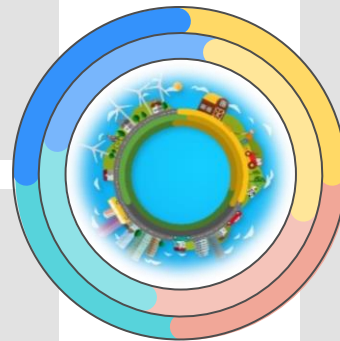
# What does our proposal improve?

## 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)

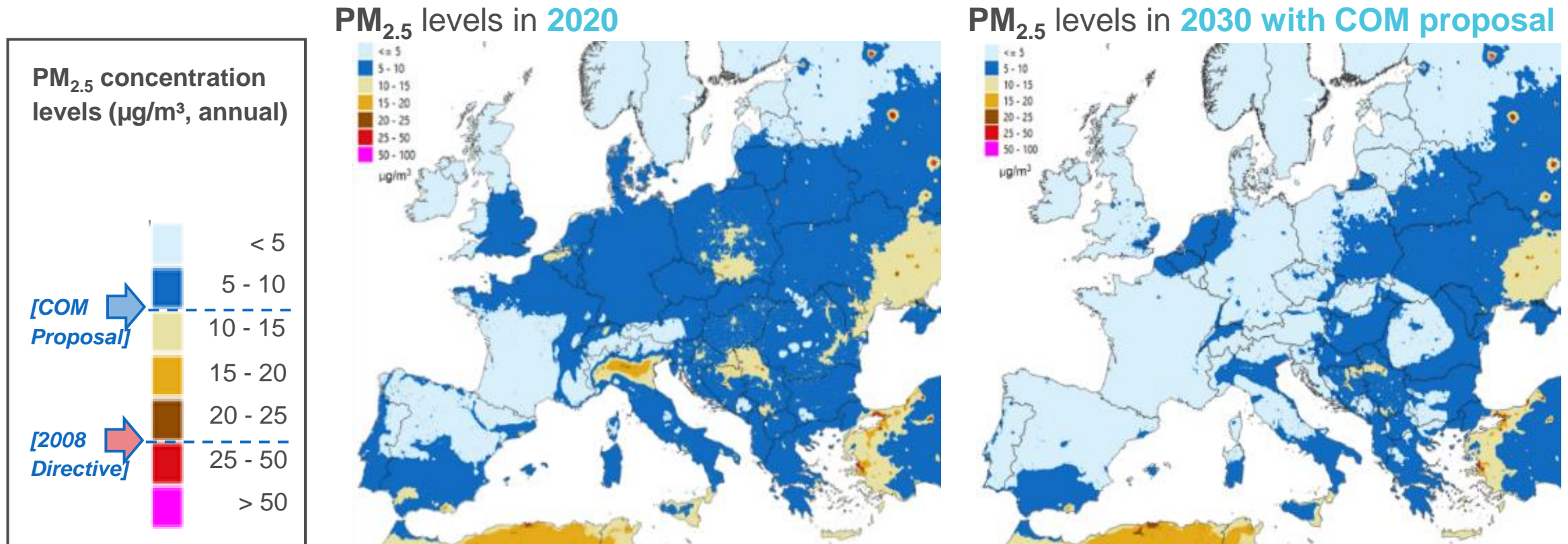
## Information & communication

- 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.

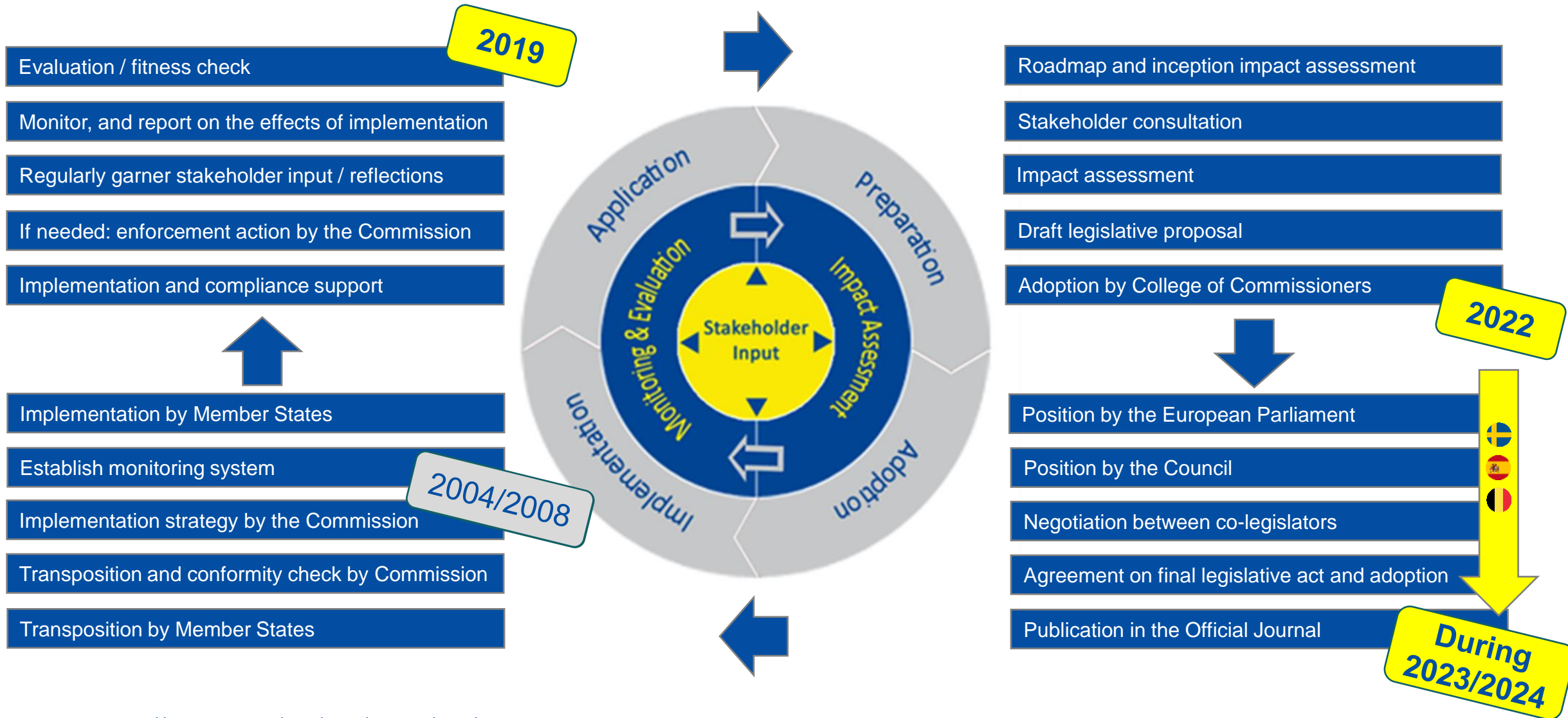


Based on GAINS/EMEP/ $\mu$ EMEP. Note that these maps show the total concentration levels, and include also contributions from natural sources of wind blown dust and sea salt.

# 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.

# EU policy making cycle (key elements, stylised)





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

