Air Quality
-Revision of EU Rules
-Funding

24 May 2023

European Commission
Clean Air & Urban Policy Unit

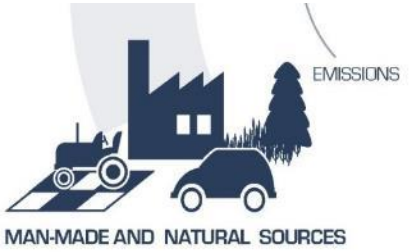
EU clean air policy

SETTING OBJECTIVES FOR GOOD AIR QUALITY

Ambient Air Quality (AAQ) Directives (revision)

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

"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

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European Commission

Different policy options (example: for $PM_{2.5}$)

AMBITION LEVEL

-

EU standards today / baseline

Policy option I-3 — I-3

Policy option I-2 — I-2

Policy option I-1 — I-1

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

Annual mean level	$PM_{2.5}$ (µg/m3)	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	**$PM_{2.5}$**	**25 µg/m3**	**15 µg/m3**	**10 µg/m3**	**5 µg/m3**
	NO_2	40 µg/m3	30 µg/m3	20 µg/m3	10 µg/m3
Exposed > WHO levels	**$PM_{2.5}$**	**333 million**	**267 million**	**243 million**	**226 million**
	NO_2	52 million	46 million	44 million	42 million
Is the standard achievable with available measures? [a]		**For >99%** of $PM_{2.5}$ sampling points	**For 99%** of $PM_{2.5}$ sampling points	**For 94%** of $PM_{2.5}$ sampling points	**For 29%** of $PM_{2.5}$ sampling points
Key economic impacts					
Mitigation costs	**Central**	**0**	**€3.3 bn**	**€5.6 bn**	**€7.0 bn**
	If corrected for 'border cell effect' [b]	0	€1.0 bn	€5.1 bn	€7.0 bn
Gross benefits	**Low** [c]	**0**	**€32.4 bn**	**€41.8 bn**	**€45.0 bn**
	High [d]	0	€93.8 bn	€121.4 bn	€130.8 bn
Net benefits	**Low** [c]	**0**	**€29.0 bn**	**€36.2 bn**	**€37.9 bn**
	High [d]	0	€90.4 bn	€115.7 bn	€123.6 bn
Benefit-cost ratio	**Low** [c]	**-**	**10:1**	**7.5:1**	**6:1**
	High [d]	-	28:1	21:1	19:1
Net GDP impact		**+ /- 0%**	**+ 0.26 %**	**+ 0.38 %**	**+ 0.44 %**
Key health impacts [e]					
Annual premature mortality	**Due to $PM_{2.5}$**	**56 100**	**38% less**	**49% less**	**53% less**
	Due to NO_2	4 050	12% less	16% less	20% less

Key criteria:

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

I-3 I-2 I-1

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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**

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)

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

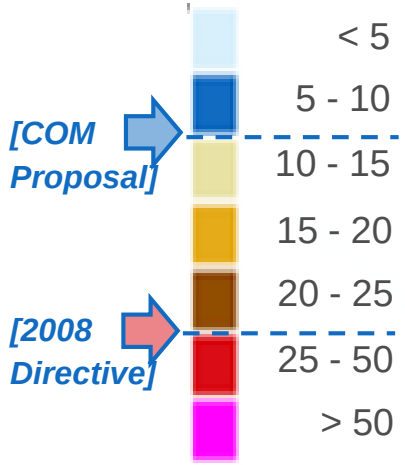
Information & communication

- 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

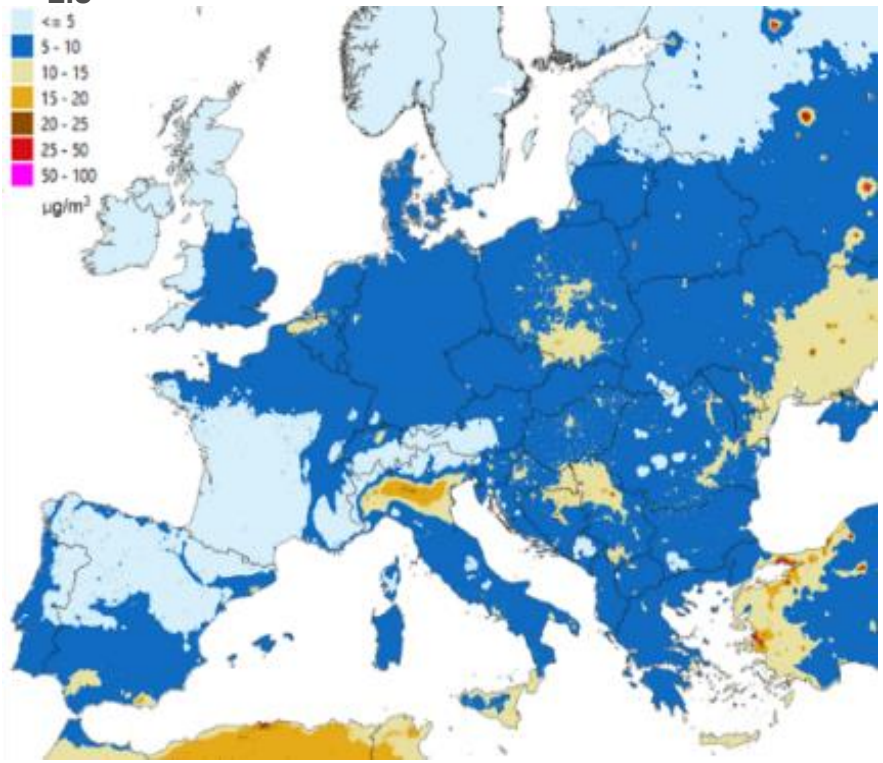
What will the proposal achieve?

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

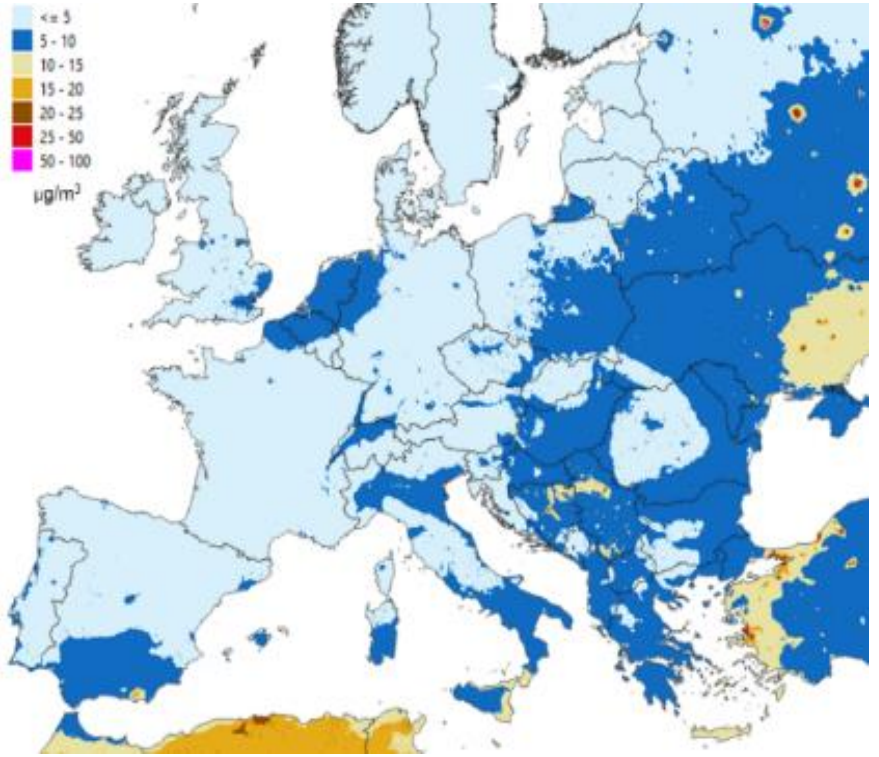
$PM_{2.5}$ concentration levels (µg/m³, annual)



$PM_{2.5}$ levels in 2020



$PM_{2.5}$ levels in 2030 with COM proposal



Based on GAINS/EMEP/uEMEP. 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)[(1)]
  – 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.

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[(1)] 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.

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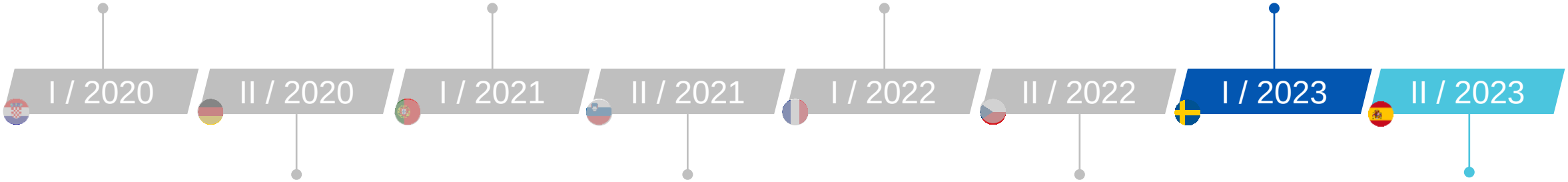
Council and Parliament
discussions of legislative proposal on air quality rules

Submission of second round of National Air Pollution Control Programmes begins



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European Commission

EU funding for sustainable mobility

- **Horizon Europe (research and innovation)**
- **LIFE (pilot, demonstration, awareness, capacity building for environment and climate)**
- **Interreg, Urban Innovative Actions**
- **ERDF/CF/ESF+ (and to a lesser degree EAFRD, EMFAF)**
- **Connecting Europe Facility**
- **InvestEU, EIB**
- **Recovery and Resilience Facilty (RRP IT)**
- **Overview in** Find your EU funding programme for the environment - Publications Office of the EU (europa.eu)

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Some comments

- **Think in terms of synergy:**
  - **Horizontal: NAPCP linked with NECP; AQP-SUMP-noise plans**
  - **Vertical: EU-national-regional-local.**
- **Legislation and investments should happen in parallel, e.g.:**
  - **Vehicles for SMEs and local freight logistics in LEZ**
  - **Charging infrastructure and electricity grid**
- **Anticipate the effects of actions and the need/possibilities for remedies, e.g.:**
  - **Wear and tear (brakes, road and rail surface interactions)**
- **Be aware of the existing stock and replacement cycles e.g. NRMM, vessels**

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