

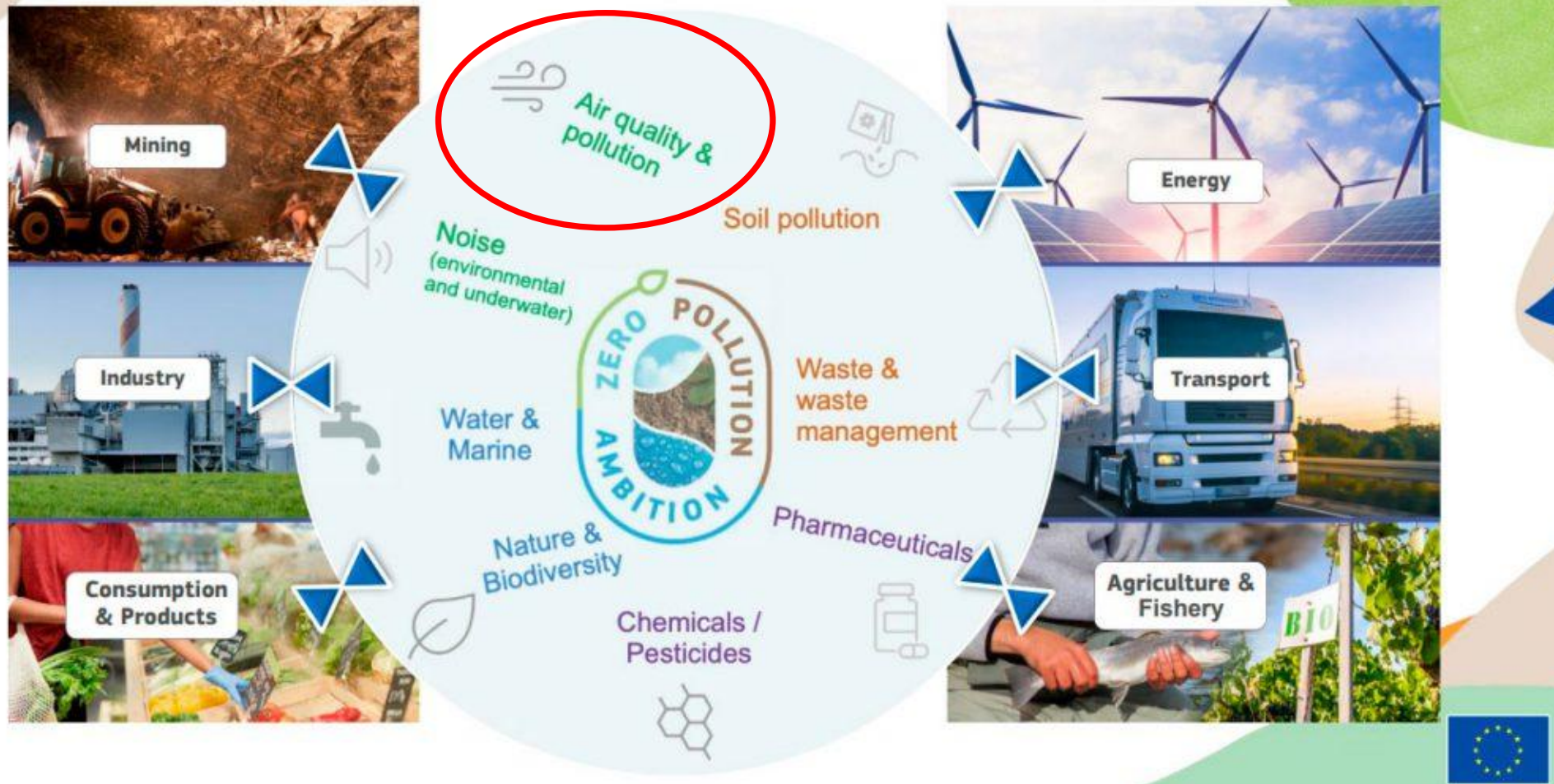
EU Air Quality Directive (2024/2881)

Objectives and new aspects

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- EU Zero Pollution Action Plan
- How does EU clean air policy work
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- EU Air Quality Directive – Dispersion Modelling
- Procedure for exceeding air quality limits

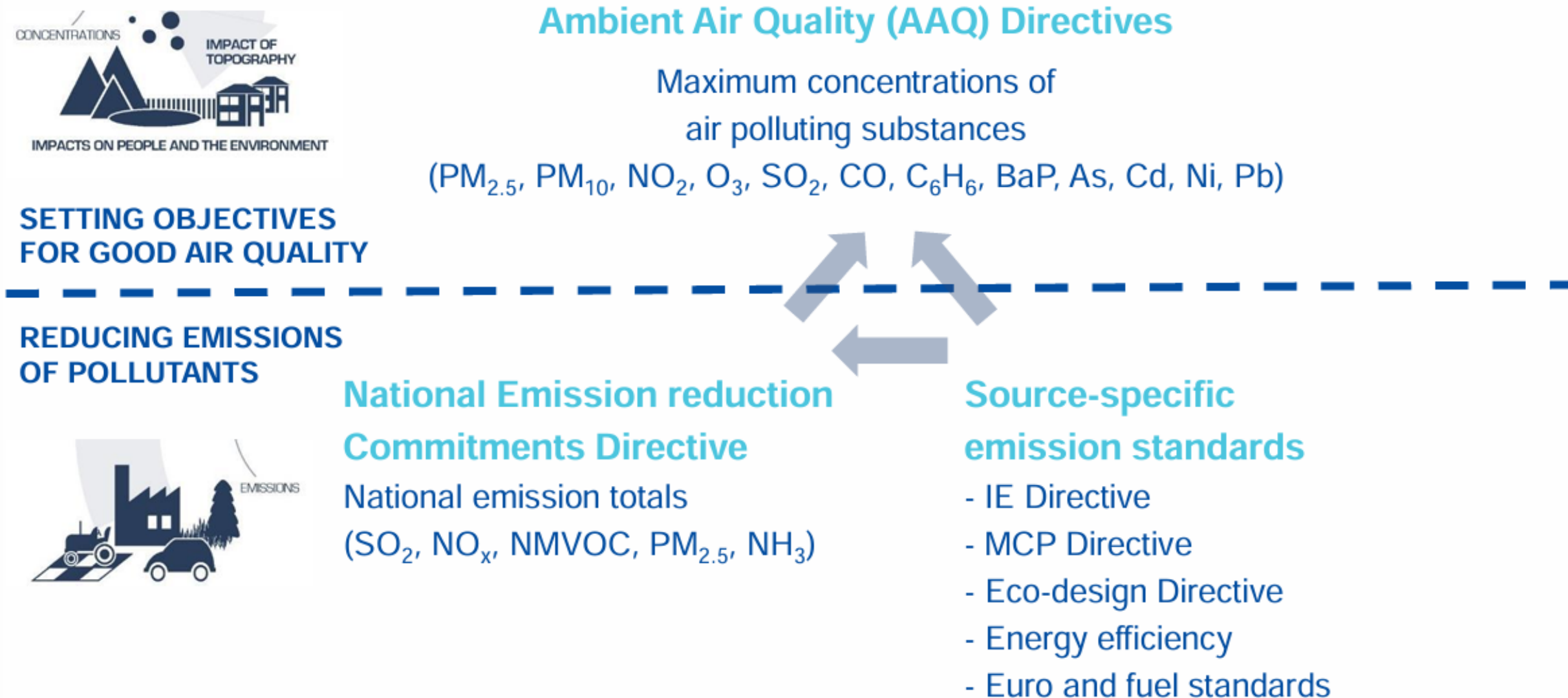
Zero pollution policies – towards an integrated approach



On 12 May 2021, the European Commission adopted the [EU Action Plan: "Towards a Zero Pollution for Air, Water and Soil"](#) - a key deliverable of the **European Green Deal**. You can get more information and get involved in the implementation of the Action Plan through the [Zero Pollution Stakeholder Platform](#).

https://environment.ec.europa.eu/strategy/zero-pollution-action-plan_en

How does EU clean air policy work?



Source: European Commission ([DAY-2-Keynote-Speech-Thomas-Henrichs-Presentation-1.pdf](#))

EU Air Quality Directive (2024/2881)

- entered into force on 10 December 2024
- replaces Directive 2008/50/EC and Directive 2004/107/EC
- Member States must transpose it into national law by 11 December 2026
- Define common **methods to monitor, assess and inform** on ambient air quality in the EU, including pollutants of emerging concern;
- Establish objectives for ambient air quality through a regular review mechanism to **avoid, prevent or reduce** harmful effects on human health and the environment;
- Guide the assessment of air quality **supported by a representative high-quality monitoring network**, with more than 4,000 air quality monitoring stations across the EU and an enhanced use of air quality modelling;
- **Exchange reliable, objective and comparable information** on air quality, which includes informing the wider public about possible health impacts.
- Develop **air quality plans** that are effective in ending and preventing exceedances of EU standards.

EU Air Quality Directive (2024/2881)

aligning 2030 EU air quality standards more closely with the recommendations of the **World Health Organization**.

important step to better protect our health and move forward on the path to **zero pollution in environment by 2050**.

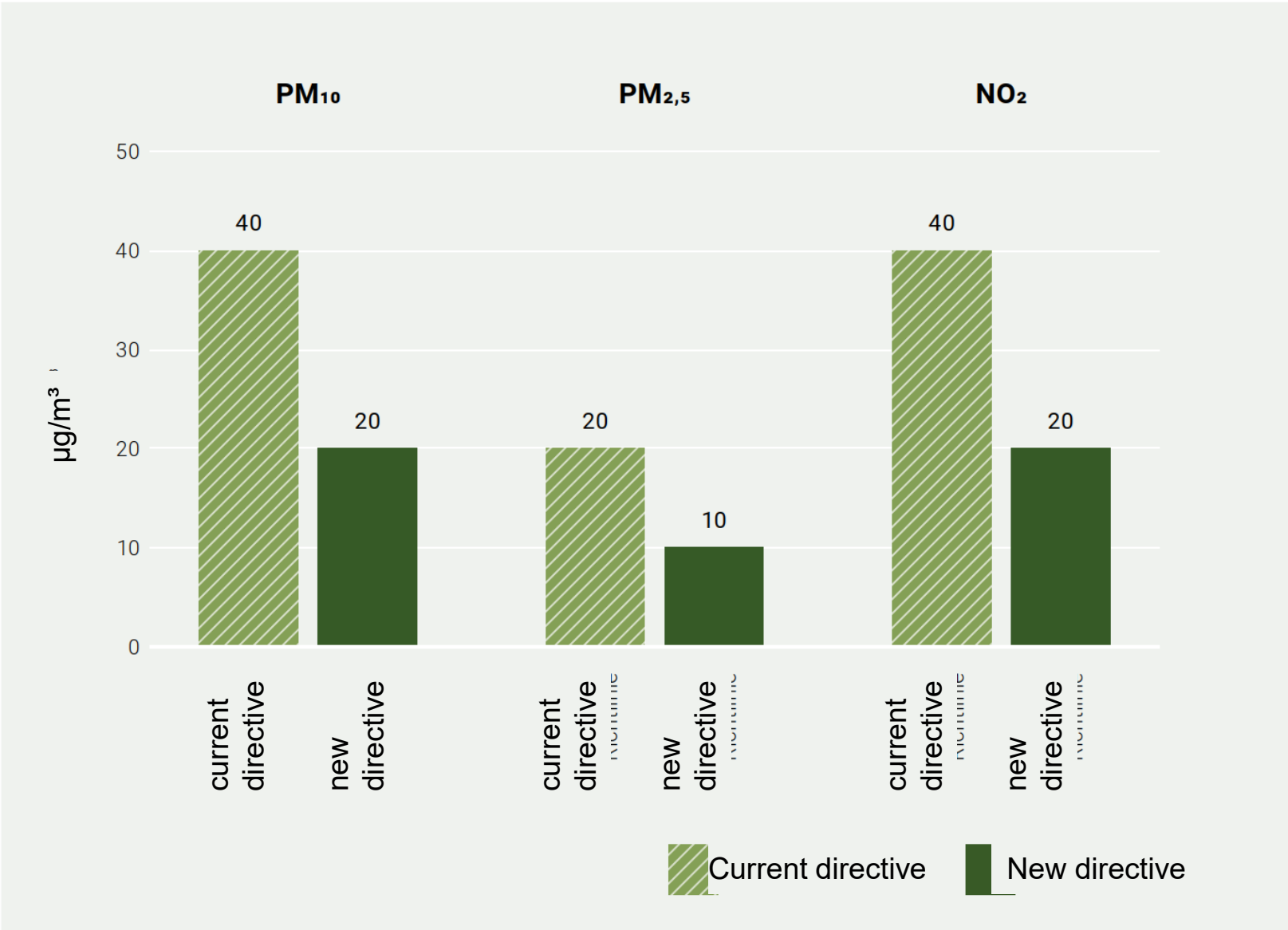
- Updating **air quality limit values** in ambient air for a total of 12 air pollutants, SO₂, NO₂, particulate matter (PM₁₀, PM_{2.5}), ozone, benzene, lead, CO, arsenic, cadmium, nickel, and benzo(a)pyrene;
- Cutting by **more than half** the allowed annual limit value for **the main air pollutants and fine particulate matter (PM₁₀ and PM_{2.5})**;
- Introduction of a **daily average limit value for PM2.5 and NO₂**
- Ensuring that **people suffering from health damages due to air pollution have the right to be compensated** in the case of a violation of EU air quality rules.
- Regularly **reviewing air quality standards**, in line with the latest scientific evidence as well as societal and technological developments;

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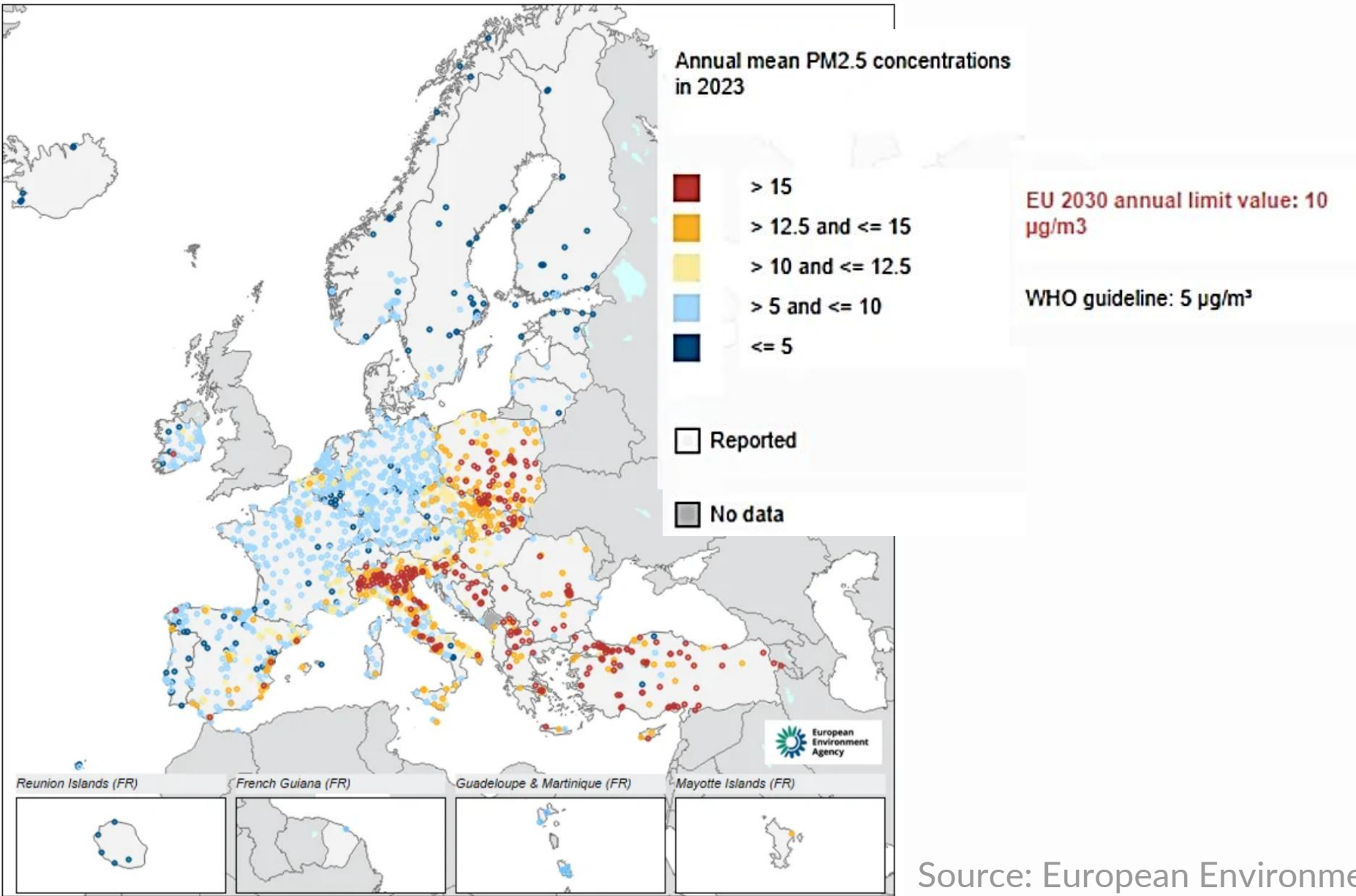
- **Fixed deadlines** for the preparation and adoption of air quality plans
- Mandatory measures in the **transition phase until 2030 through air quality roadmaps**
- Gradual **reduction targets for urban background pollution** for nitrogen dioxide (NO₂) and particulate matter PM_{2.5}
- **New measurement requirements for additional air pollutants**: ultrafine particles, soot (black carbon) and ammonia
- **The new threshold values must be complied with from 2030 onwards.**
In **exceptional cases**, Member States may **request extensions** if compliance with the limit values is not possible by 2030. However, the limit values must be complied with by **2040 at the latest**.

Pollutant	Type of limit	Previous limit until 2026	New limit from 2030 onwards
PM2.5	Annual	25 µg/m³	10 µg/m³
	Daily	-	25 µg/m³
PM10	Annual	40 µg/m³	20 µg/m³
	Daily	50 µg/m³	45 µg/m³
Nitrogen Dioxide (NO2)	Annual	40 µg/m³	20 µg/m³
	Daily	-	50 µg/m³
	Horario	200 µg/m³	200 µg/m³
Sulphur Dioxide (SO2)	Annual	-	20 µg/m³
	Daily	125 µg/m³	50 µg/m³
	Hourly	350 µg/m³	350 µg/m³
Benzene	Annual	5 µg/m³	3.4 µg/m³

Pollutant	Period	Alert threshold		Reporting threshold	
		Previous	New	Previous	New
PM2.5	1 day	-	50 µg/m³	-	50 µg/m³
PM10	1 day	-	90 µg/m³	-	90 µg/m³
Nitrogen Dioxide (NO2)	1 hour	400 µg/m³	200 µg/m³	400 µg/m³	150 µg/m³
Sulphur Dioxide (SO2)	1 hour	500 µg/m³	350 µg/m³	500 µg/m³	275 µg/m³
Ozone (O3)	1 hour	240 µg/m³	240 µg/m³	180 µg/m³	180 µg/m³



PM2.5 concentrations in 2023 versus the permitted limit value in 2030.



Source: European Environment Agency

Expanded role of modelling

- Modelling is now **equivalent to measurement** in air quality assessment.
- It serves to **supplement measurement data**, particularly in areas with low measurement coverage.
- Modelling is also used to **verify exceedances of limit values**.

Technical requirements

- **Implementation of harmonised modelling procedures** in all Member States.
- Models must be:
 - **scientifically established**,
 - **spatially representative** of population exposure,
 - **quality assured** and documented.
- **EU-wide quality objectives** apply to modelling results, similar to those for measurement data.

Areas of application

- **Assessment of air quality** in urban and rural areas.
- **Prediction of air pollution episodes** for early warning.
- **Planning of measures** to reduce emissions.
- **Determination of the contribution** of individual sources (e.g. traffic, industry).

Integration with measurement data

- Modelling results must be combined with **indicative measurements**.
- The directive requires that **modelling results be considered in the assessment** – especially when determining whether limit values have been exceeded.

Representativeness

- Models must **support the spatial representativeness of measurement points**.
- **Technical details on site selection** and **the validation of modelling results** will be specified in future implementing acts.

Further guidance

The European Commission will publish additional technical guidance on, among other things:

- Model types and their application,
- Validation and uncertainty assessment,
- Integration into air quality plans and exposure indicators (AEI).



Procedure for exceeding air quality limits

1. Assessment and confirmation of exceedance

The responsible authorities must **confirm and document the exceedance** through measurements or modelling

2. Informing the public

The **public must be informed** promptly and transparently about the exceedance of the limit values, including the potential health risks and recommended protective measures.

3. Drawing up an air quality management plan

An air quality management plan must be drawn up within a certain period of time. This plan must:

- **Analyse the causes** of the exceedance,
- Contain **reliable measures to reduce pollution** (e.g. quantify with modelling),
- Set a **timeframe** for compliance with the limit values.
- **Air quality roadmaps:**

During the transition phase until 2030, mandatory air quality roadmaps are planned, setting gradual reduction targets for NO₂ and PM_{2.5}.

Procedure for exceeding air quality limits

4. Measures to reduce emissions

The plan must contain specific measures, e.g.:

- **Traffic regulations** (e.g. driving bans (e.g. lower emission zone), speed limits),
- Promotion of **public transport**,
- Restrictions on **industrial emissions**,
- Restriction on **domestic combustion** (wood-, coal-ban)
- Promotion of **low-emission technologies**
- Promotion of **renewable energies**

5. Reporting to the European Commission

Member States must **report regularly on the progress made in implementing the measures**. The Commission may initiate infringement proceedings if implementation is insufficient.

6. Review and adjustment

Air quality plans must be **reviewed regularly and adjusted if necessary** if the measures are insufficient or the framework conditions change.

Deadline	Description
10 December 2024	Directive enters into force.
12 December 2026	The substantive rules shall apply from that date.
End of 2026	Deadline for transposition into national law .
31 December 2028	Deadline roadmap must be established . However, the limit values must be complied with by 2040 at the latest .
1 January 2030	Stricter air quality limit values must be attained.
31 December 2030 and every 5 years thereafter	Commission reviews scientific evidence.

Thank you for your attantion



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