

Opinion of the European Economic and Social Committee on the Proposal for a Directive of the European Parliament and of the Council on ambient air quality and cleaner air for Europe

(COM(2022) 542 *final* — 2022/0347 (COD))

(2023/C 146/08)

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Section responsible	Agriculture, Rural Development and the Environment
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Outcome of vote (for/against/abstentions)	145/9/12

1. Conclusions and recommendations

1.1. Clean air is a fundamental human right, therefore the EESC strongly welcomes the proposal for a revision of the Ambient Air Quality Directives (AAQDs). The Committee recommends fully aligning the EU air quality standards (including for ozone, in the form of limit values) with the updated World Health Organization (WHO) Global Air Quality Guidelines by 2030 at the latest, and defining a strong enabling framework based on limit values, enforcement mechanisms and clear management rules. Reducing air pollution has large co-benefits for climate mitigation, energy security and biodiversity, and it increases the resilience of populations for pandemics.

1.2. The EESC welcomes the approach taken by the Commission to focus on 'benefit-to-cost', but regrets that the ratio, and not the maximum protection of human life and health indicators, is considered the most important indicator to be taken into account in this revision. This leads to 'closer alignment', rather than to 'full alignment' as the preferred policy option. With the exception of nitrogen dioxide, the proposal seems to seek an alignment with the WHO Guidelines from 2005 and not the latest ones, published in September 2021.

1.3. Clean air standards form a legal framework, but reducing emissions lies in the remit of other legislative packages. The Committee is confident that the AAQDs limits and rules, ambitiously set and enforced in a timely manner, together with effective sectoral measures, will lead to bold actions at national and local levels.

1.4. Citizens should act too and learn about the link between their lifestyle, actions, consumption patterns, and pollution levels. Better informed people are much more motivated to act, and long-term behavioural change can be achieved more easily. Therefore, the EESC calls for funding increase for citizen science projects related to pollution under the Horizon Europe programme.

1.5. The Committee strongly supports the right to compensation for people who have suffered health damage from air pollution and penalties for natural and legal persons within the Member State that violated the rules.

2. Background

2.1. Ambient (outdoor) air pollution is the number one environmental cause of health impacts in the EU, with estimates of more than 300 000 premature deaths per year ⁽¹⁾. The WHO says that air pollution in both cities and rural areas was estimated to cause 4,2 million premature deaths worldwide per year ⁽²⁾. This is due to the cumulative effects of air pollution on public health. For instance, exposure to fine particulate matter (PM) of 2,5 microns or less in diameter (PM_{2,5}) causes many health problems including cardiovascular and respiratory disease and cancers. Air pollution also damages our environment, causing acidification, eutrophication and crop losses.

2.2. Exceedances of air quality limit values are registered widely across the EU ⁽³⁾, with concentrations well above the latest WHO recommendations ⁽⁴⁾.

2.3. The AAQDs (Directive 2008/50/EC of the European Parliament and of the Council ⁽⁵⁾ on ambient air quality and cleaner air for Europe and Directive 2004/107/EC of the European Parliament and of the Council ⁽⁶⁾ on arsenic, cadmium, mercury (Hg), nickel and polycyclic aromatic hydrocarbons in ambient air) set rules for air pollution management and EU air quality standards for 12 air pollutants: sulphur dioxide (SO₂), nitrogen dioxide (NO₂)/nitrogen oxides (NOx), particulate matter (PM₁₀ and PM_{2,5}), ozone (O₃), benzene (C₆H₆), lead (Pb), carbon monoxide (CO), arsenic (As), cadmium (Cd), nickel (Ni), and benzo(a)pyrene (C₂₀H₁₂).

2.4. The Fitness check ⁽⁷⁾ concluded that the current AAQDs helped to reduce air pollution. There are 70 % fewer early deaths attributable to air pollution compared to the 1990s. Yet, ambient air in our continent is still too polluted, to the detriment of people's health and the environment.

2.5. As for their harm to human health, the most impactful pollutants in Europe are PM_{2,5}, NO₂ and ground level ozone. The European Union wants to achieve zero pollution at the latest by 2050, in synergy with climate-neutrality efforts. In the meantime, the current revision of AAQDs aims to, inter alia:

- introduce stricter air quality standards, more closely aligned with the new WHO guidelines;
- support the right to clean air and improve access to justice;
- establish more effective penalties and compensation regimes when air quality rules are breached;
- strengthen air quality monitoring and modelling rules to support preventive action and targeted measures;
- clarify the requirements for the definition, adoption and implementation of lawful and effective air quality plans, aiming at both preventing and remedying violations of the legislation;
- improve access to and the quality of public information.

⁽¹⁾ EEA, Health impacts of air pollution in Europe.

⁽²⁾ WHO, Ambient (outdoor) air pollution.

⁽³⁾ EEA, Europe's air quality status 2022.

⁽⁴⁾ WHO, Global air quality guidelines.

⁽⁵⁾ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1).

⁽⁶⁾ Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (OJ L 23, 26.1.2005, p. 3).

⁽⁷⁾ CIRCABC, Air Policy.

3. General comments

Path to Zero Pollution

3.1. The right to clean air is an internationally recognised fundamental human right ⁽⁸⁾. Therefore, the EESC strongly welcomes the proposal for a revision of the AAQDs. EU air quality legislation has proved to be a key and fundamental tool to drive air pollution reduction in the EU.

3.2. The level of alignment of EU air quality standards with the most recent WHO Guidelines is a matter of political choice and depends on ambitions at state and city levels. Three scenarios (and corresponding policy options) had been examined by the Commission and described in its Impact Assessment Report ⁽⁹⁾. The choice among them is political, and not 'purely scientific'. The three options are distinguished by different levels of ambition: 'full alignment' (I-1), 'closer alignment' (I-2) and 'partial alignment' (I-3).

3.3. The EESC welcomes the approach taken by the Commission to focus on 'benefit-to-cost', but regrets that the ratio, and not the maximum protection of human life and health indicators, is considered the most important indicator to be taken into account in this revision, thus leading to Policy option I-2, the 'closer alignment'. With the exception of NO₂, the proposal indeed aims at alignment with the WHO Guidelines from 2005, and not the new ones, published in 2021.

3.4. The EESC urges, by the earliest possible deadline, assessment of the progress and review of the targets, fully aligning the EU air quality standards with the updated WHO guidelines by 2030 at the latest. This alignment should be accompanied by a strong enabling framework, relying on limit values, enforcement mechanisms and clear management rules.

Limitations of current proposal

3.5. Regretfully, most Member States still do not comply with the existing EU air quality standards, and are not taking effective action to improve air quality — as testified by the number of ongoing infringements procedures. Thus, the revision was expected to not only set the right level of ambition, in coherence with science, so to stimulate more decisive initiatives, but to also improve implementation and enforcement rules, in order to better assist and guide Member States and competent authorities.

3.6. The Committee calls for the removal of potential loopholes from the legislation, related to human health and environmental protection. Articles 16 and 17 contain the rules for deducting winter sanding/salting and natural sources of air pollution from compliance obligation. In the Committee's view, this approach contradicts the objectives of the legislation. Natural and human-made sources combine and amplify the effect of pollutants. By neglecting natural air pollution sources, we would continue putting people's lives in danger.

3.7. Similarly, in Article 29, Member States are set to establish effective, proportionate and dissuasive penalties for 'natural and legal persons' within the Member State that violated the rules. This is a step in the right direction that the Committee strongly supports, as it is extremely important to have a working sanctions regime to address non-compliance, together with the provisions in Article 28 on the right to compensation for people who have suffered health damage (even partially) from air pollution. The Committee calls for a clear, strictly rational link to be established between the pollutant source and the polluter, which clarifies responsibilities and their related penalisation; it also demands further clarification of the provisions on air quality plans and the remedies (including financial penalties) linked to failures to comply with air quality standards by the deadlines.

⁽⁸⁾ United Nations General Assembly Resolution A/76/L.75 and NAT/824.

⁽⁹⁾ European Commission, Air quality — revision of EU rules.

3.8. Special emphasis should be put on ozone. According to the EEA's estimation, 24 000 premature deaths per year are due to ozone exposure⁽¹⁰⁾. Ozone is a pollutant that is not directly emitted by primary sources. It is formed through a series of complex reactions in the atmosphere driven by the energy transferred to nitrogen dioxide molecules when they absorb light from solar radiation⁽¹¹⁾. The health effects of ground-level ozone ('toxic' ozone) are well-identified: recent epidemiologic research has demonstrated that ozone exposures are associated with increased mortality and morbidity⁽¹²⁾ and to serious damage to nature and crops. No effective actions are in place yet to swiftly reduce the emissions of ozone precursors such as methane, despite the recent publication of EU Methane Action Plan under the Global Methane Pledge. However, the Committee welcomes the intention to explore, during the National Emissions reduction Commitments Directive review in 2025, the possible inclusion of methane among the regulated pollutants.

3.9. In Article 13 the Commission is proposing to turn into 'limit values' almost all air pollutants currently subject to 'target values', except for ozone, which is still covered by only 'target values'. This exemption is justified by 'the complex characteristics of its formation in the atmosphere which complicate the task of assessing the feasibility of complying with strict limit values'.

3.10. In the Committee's view, such 'target values' will not sufficiently incentivise Member States and competent authorities to decrease ground-level ozone — one of the three most serious pollutants. Solutions do exist to reduce toxic ozone. Reducing ozone precursors such as NO_x, non-methane volatile organic compounds (VOCs) and methane emissions, will contribute to decreasing ozone concentrations. Improving vehicle emissions standards, reducing the use of or banning solvents, paints or sprayers with high VOCs content, effectively lowering methane emissions from energy, waste and agriculture (the largest contributor) are efficient ways to consequently decrease ground-level ozone. These known tools should be entirely exploited. The Committee recommends fully aligning EU ozone standards, in the form of 'limit value', with the 2021 WHO Global Air Quality Guidelines.

3.11. On top of the Commission's proposal, additional monitoring sites for Ultra Fine Particles (UFP), black carbon and ammonia should be introduced. The proposed density is not enough to serve the development of epidemiological studies. The monitoring sites must be planned in such a way that their data are sufficient to adequately inform local health authorities of the health risks posed by local pollution, including emerging pollutants of concern, especially with regard to vulnerable populations and highly polluted areas.

Specific sectorial measures

3.12. With regard to Article 10 of the proposal, the Committee suggests that each Member State should establish at least one monitoring 'supersite' for each city with more than 250 000 inhabitants in an urban background location. Member States that do not have cities with more than 250 000 inhabitants must establish at least one monitoring 'supersite' in an urban background location.

3.13. Besides purely medical guidance, the WHO recommends protecting nature, preserving clean air and investing in clean energy to ensure a quick and healthy energy transition, which will also bring co-benefits in the fight against climate change. The WHO also recommends building healthy and liveable cities: promoting cleaner and active mobility, such as public transport, cycling and walking; stopping using taxpayer's money to subsidise the fossil fuels that cause air pollution; and promoting healthy diets.

3.14. These points of action should guide European decision-making too. The European Green Deal and the relevant initiatives as broad as Fit for 55 or REPowerEU should be adopted and implemented in light of public health and environmental protection⁽¹³⁾, serving climate change mitigation and adaptation, security of energy supply and geopolitical considerations.

⁽¹⁰⁾ EEA, Health impacts of air pollution in Europe.

⁽¹¹⁾ WHO, Global air quality guidelines.

⁽¹²⁾ EPA, Health Effects of Ozone in the General Population.

⁽¹³⁾ Particular attention should be given to the new vehicle emissions standards Euro 7, as road transport is the main cause of the ambient air pollution in urban territories. The failure to meet expectation on Euro 7 is expressed by many stakeholders (e.g. Transport & Environment).

3.15. That is why the EESC sees room for further improvement in the proposal. The shortcoming of the Commission proposal lies clearly in the field of not looking beyond what is technically quantifiable today. Impacts from policy actions are modelled up to maximum technically feasible reductions, with the baseline scenario already underestimating the potential. Additional strong sectoral legislation (e.g. in transport, domestic heating and the agri-food sector) would undoubtedly help in delivering cleaner air:

- Regulating all pollutants that harm human health, the environment and climate;
- Establishing strict emission limits for stoves and boilers, as part of the EcoDesign standards revision;
- Ensuring that the agri-food sector is also contributing to the achievement of WHO Guidelines levels by 2030, especially cutting ammonia and methane emissions;
- Promoting public transport and disincentivising the use of personal cars;
- Reducing EU vehicle emission limits to the globally lowest level possible (and acting as soon as possible) while phasing out internal combustion engines;
- Improving testing, approval and certification of vehicles;
- Monitoring emissions on the road, e.g. by remote sensing technology;
- Harmonising the European framework⁽¹⁴⁾ for low-emission/zero-emission zones and introducing a single EU-level portal for vehicle check and registration for entering such zones.

3.16. Clean air rules form a legal framework, but reducing emissions lies in the remit of other legislative packages. In the Committee's view, the low-emission/zero-emission zone concept offers a perfect 'best practice' example. For instance, there may well not have been a Low Emission Zone (LEZ) in Brussels if there were no norms to enforce measures to reach these goals. Later on, as more and more cities reach the norms, the guiding targets need to be updated on the basis of scientific data to continually improve air quality.

3.17. The process described above creates a virtuous cycle of actions and consequences. The AAQDs limits and rules, ambitiously set and enforced in a timely manner, together with effective sectoral measures, will lead to bold actions being taken at national and local levels. It will make ambitious clean air targets easier to achieve. All feasible opportunities of this chain of actions are, in the Committee's view, not fully taken into account in the impact assessment and in the proposal. If it were present in the initial planning of the proposal, then the 'full alignment' (I-1) option might have been chosen as the way forward, not the less ambitious I-2 of 'closer alignment'.

Increasing public awareness

3.18. Despite improvement since the 1990s, air quality is still a serious concern for European citizens. Most Europeans (more than 80 %) think that health conditions such as respiratory diseases, asthma and cardiovascular diseases, are serious problems in their countries resulting from air pollution⁽¹⁵⁾.

3.19. While a majority of Europeans do not feel well-informed (60 %), nearly half of the respondents to the survey hold the view that air quality has deteriorated in the last 10 years (47 %). Despite the fact that the number of people exposed to heavily polluted air has steadily declined, those who are exposed still suffer huge health problems and do not experience any tangible evidence that the ambient air quality has improved.

⁽¹⁴⁾ The EESC notes that the sustainable and smart mobility strategy (COM(2020) 789 final) includes the Commission's commitment to launch a dedicated study on solutions to enable more effective and user-friendly 'urban vehicles access restriction schemes', while respecting the principle of subsidiarity.

⁽¹⁵⁾ Eurobarometer, Attitudes of Europeans towards Air Quality. In COM(2021) 44 a link between cancer and pollution is taken into account. The EESC finds it necessary to add a question regarding attitudes to cancer (and also diabetes and dementia) as a consequence of air pollution to the future Eurobarometer surveys.

3.20. It is not clear yet how much citizens would be ready to do, proactively, in order to improve, directly or indirectly, the quality of ambient air. However, awareness raising has twofold effects:

3.20.1. First, Europeans should learn about the link between their lifestyle, actions, consumption patterns and pollution levels. Such clear linkage would result in better public acceptance for the introduction of policy measures, related to behaviour change.

3.20.2. Second, the effectiveness of such policy measures would be much higher and bring cumulative results if citizens learn about the outcomes of their behavioural change. Ambient air quality improvements can be clearly seen by the 'naked eye', especially in the urban environment, however, scientific data, presented in an interactive and easy-to-grasp way, can facilitate a virtuous circle. Better informed people are much more motivated to act and long-term behavioural change can be achieved more easily.

3.21. Citizen science acts as a decisive factor in forming public opinion on all pollution related issues and their impacts on citizens' lives. The EESC points out the success of initiatives like 'CurieuzeNeuzen' ⁽¹⁶⁾, which acted as a catalyst for public acceptance of LEZs in several cities in Belgium, and calls for stepping up funding under the Horizon Europe programme for citizen science projects related to pollution.

4. Specific comments on air pollutants of emerging concern

Ultra-fine particles

4.1. Ultra-fine particles are particles with a diameter of 0,1 µm (100 nm) or less. These particles result from natural or anthropogenic sources such as combustion activities. Despite growing evidence of the impact of UFP on health, these pollutants are not regulated by the current AAQDs. The EESC notes an increasing ambition to transform the existing health impact knowledge into policy recommendations, however, there is a need to gather additional information on the matter.

4.2. Therefore, the EESC calls for additional targeted action via the Horizon Europe programme, to fund research on UFP in a systematic way. Despite the lack of specific indicators on UFP, it may be worth starting a public awareness campaign to inform European citizens about 'emerging' risks from this underexposed pollutant class.

Black carbon

4.3. Black carbon (BC) are fine particles generated by the combustion of fossil fuels or biomass. BC has adverse effects on health, provoking heart or lung diseases, but it is also a climate change accelerator, as 1 ton of BC has a global warming effect up to 1 500 times stronger than 1 ton of CO₂.

4.4. The Committee takes into account the references to studies, provided by the WHO ⁽¹⁷⁾, that find statistically meaningful health impacts from exposure to black carbon at levels of 1,08 to 1,15 µg/m³. However, the WHO does not endorse these levels in its good practice recommendation. In the Committee's view, this should not act as an excuse to not take any action on black carbon. Similarly, actions to reduce levels of UFP like on PM_{2,5} and PM₁₀, should be taken. Waiting for another three or five years of evidence from some EU-funded research projects or for another WHO guidance document means thousands of citizens' lives will be lost and the climate crisis will be accelerated.

Ammonia

4.5. Ammonia (NH₃) is an inorganic compound of nitrogen and hydrogen. High levels of ammonia damage the lungs and are a cause of mortality. NH₃ is an important contributor to excess levels of secondary PM. It also deteriorates our environment and damages biodiversity through acidification and eutrophication. Reductions of ammonia can be achieved in the agri-food, transport and 'solvent and product use' sectors.

⁽¹⁶⁾ CurieuzeNeuzen in Vlaanderen. Similar campaigns were led by civil society groups in Germany, Ireland, Italy, Lithuania, Poland, Slovakia and several other EU countries.

⁽¹⁷⁾ UNEP, Health effects of black carbon.

4.6. No WHO recommendations for ammonia concentrations in ambient air related to health impacts exist. Yet, its health and environmental impact is well-documented ⁽¹⁸⁾, as ammonia emissions contribute to the formation of secondary PM_{2,5}, for which WHO Air Quality Guidelines exist. Experts have suggested a long-term critical level for vegetation (higher plants) at 3 µg/m³.

4.7. The recent proposal to revise the Industrial Emissions Directive (IED) ⁽¹⁹⁾ and its higher ambition of reducing industrial emissions and expanding its scope to the EU's largest livestock farms, can significantly contribute to ammonia emissions reductions, since the principal source of NH₃ emissions is agriculture, and roughly ¾ of emissions in the EU are caused by manure management from livestock farming ⁽²⁰⁾. However, the IED should be implemented in a proportionate and cost-effective manner to avoid an additional increase in production costs in the agri-food sector ⁽²¹⁾.

4.8. To ensure individuals' livelihoods health and well-being, the EESC maintains that a robust support mechanism for vulnerable individuals and industries is also necessary to make the practical solutions on NH₃ emissions in livestock farming available 'on the ground'. This support should include funding for known technological advancements and further research. Overall, livestock farming undertakings should be encouraged to make environment and health-friendly changes while maintaining the critical function of the supply of goods for the population ⁽²²⁾.

Brussels, 22 February 2023.

The President
of the European Economic and Social Committee
Christa SCHWENG

⁽¹⁸⁾ UNECE, Towards Cleaner Air, Scientific Assessment Report 2016.

⁽¹⁹⁾ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

⁽²⁰⁾ 76,2 per cent in 2020, according to the National air pollutant emissions dashboard.

⁽²¹⁾ EESC opinion on Revision of the Industrial Emissions Directive (IED) and of the Regulation on the E-PRTR (OJ C 443, 22.11.2022, p. 130).

⁽²²⁾ EESC opinion on Revision of the Industrial Emissions Directive (IED) and of the Regulation on the E-PRTR (OJ C 443, 22.11.2022, p. 130).