

INCEPTION IMPACT ASSESSMENT

Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

TITLE OF THE INITIATIVE	Revision of the Ambient Air Quality Directives
LEAD DG (RESPONSIBLE UNIT)	DG Environment, Unit C3 Clean Air
LIKELY TYPE OF INITIATIVE	Legislative proposal
INDICATIVE PLANNING	Q3 2022
ADDITIONAL INFORMATION	https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12677-Revision-of-EU-Ambient-Air-Quality-Legislation

The Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Inception impact assessment, including its timing, are subject to change.

A. Context, Problem definition and Subsidiarity Check

Context

The Ambient Air Quality Directives¹ define common methods to monitor, assess and inform on ambient air quality in the European Union, and establish objectives for ambient air quality to avoid, prevent or reduce harmful effects on human health and the environment as a whole.

In November 2019, the Commission published a [Fitness Check of the Ambient Air Quality Directives](#).² It concluded that these Directives have been *partially effective* in improving air quality, but not *fully effective*, and not all their objectives have been met. It concluded that the remaining gap to achieve air quality standards is too wide in certain cases. The Fitness Check outlined seven lessons learnt:

- (1) Air quality remains a major health and environmental concern;
- (2) Air quality standards are instrumental, and partially effective, in reducing pollution;
- (3) Current EU standards are less ambitious than scientific advice;
- (4) Limit values have been more effective than other types of air quality standards;
- (5) Legal enforcement action by European Commission, and civil society, is an effective tool;³
- (6) There is scope to further harmonise monitoring, modelling, information, and air quality plans;
- (7) Not all reported data is equally useful, e-reporting allows for further efficiency gains.

The [European Green Deal](#)⁴ announced in the framework of its zero pollution ambition for a toxic-free environment, that the Commission would draw on the lessons learnt from the Fitness Check - and strengthen provisions on monitoring, modelling and air quality plans in order to help local authorities achieve cleaner air, as well as align EU air quality standards closely with World Health Organization (WHO) recommendations.

Updating the EU air quality standards based on the latest scientific evidence for the protection of human health and the environment and strengthening the basis for effective action for better air quality, including via better air quality monitoring, modelling and air quality plans will improve ambient air quality.

¹ Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel, and polycyclic aromatic hydrocarbons in air, and Directive 2008/50/EC on ambient air quality and cleaner air for Europe.

² SWD(2019) 427 final. Fitness Check of the Ambient Air Quality Directives.

³ Note that the effectiveness of legal enforcement action by civil society is linked to the functioning of access to justice at national level and the dynamism of NGOs.

⁴ COM(2019) 640 final. The European Green Deal.

Problem the initiative aims to tackle

Clean air is essential to human health and for sustaining the environment. Despite significant reductions of harmful air pollutant emissions over the past three decades, the latest estimates still point to around 400.000 premature deaths each year due to air pollution in Europe. Eutrophication limits are being exceeded in 62% of ecosystem areas and in 73% of Natura 2000 areas across the EU territory.⁵ Air quality continues to be a major health and environmental concern to the citizens of the EU: almost half of the respondents to a Eurobarometer survey highlighted ‘air pollution’ as one of the two most important environmental issues, next to climate change.⁶ Furthermore, improved air quality in certain locations due to temporary measures taken to address the COVID-19 pandemic has caught the public’s attention.

This initiative will tackle three problems related to ambient air quality:

(1) EU air quality standards allow higher air pollutant concentrations than is scientifically advisable: EU air quality standards have been set in the Ambient Air Quality Directives for 13 air pollutants: sulphur dioxide, nitrogen dioxide and nitrogen oxide, particulate matter (PM₁₀, PM_{2.5}), ozone, benzene, lead, carbon monoxide, arsenic, cadmium, nickel, and benzo(a)pyrene. For several air pollutants, these standards are not as stringent as recommended by the World Health Organization (WHO) ‘Air Quality Guidelines’ from 2006. These Air Quality Guidelines are currently under revision with an expected publication date in the first half of 2021. A growing body of scientific evidence points to serious adverse health effects at concentration levels lower than those set by the EU air quality standards, most notably for fine particulate matter (PM_{2.5}).

(2) There is scope for further improvements to the legislative framework (e.g. in relation to penalties, and public information): There are substantial delays in taking appropriate and effective measures to meet all EU air quality standards throughout Member States. The persistent exceedances of the current air quality standards for at least one air pollutant in the majority of Member States point to substantial socio-economic or political challenges in reaching air quality objectives that were agreed over a decade ago. Thus, while the number and magnitude of exceedances above air quality standards have decreased, exceedance periods have not been kept as short as possible to date. Improvements to the legislative framework, including related to penalties and public information may facilitate air quality action.

(3) There is scope to better support local authorities in achieving cleaner air through strengthening air quality monitoring, modelling and plans: The Ambient Air Quality Directives have guided the establishment of a robust system for air quality assessment and have framed competent authorities’ action to achieve cleaner air via air quality plans. However, the criteria on monitoring could be further clarified to reduce ambiguity and increase the comparability of air quality data. Also, air quality models have improved but they are not yet used to their full potential due to the lack of common modelling standards. In addition, air quality plans have not always lived up to the requirement to ensure compliance with the EU air quality standards.

Basis for EU intervention (legal basis and subsidiarity check)

The objectives of the initiative cannot be sufficiently achieved at Member State level alone. This is due, firstly, to the transboundary nature of air pollution, as emissions from one Member State can contribute to ambient air pollution in other Member States. Secondly, the Treaty requires to aim for a high level of protection taking into account the diversity of situations across the EU. Thirdly, equal treatment must be ensured as regards the economic implications of air pollution throughout all Member States. Therefore, the nature and scale of the problem requires that air quality is addressed via a policy framework at EU level, applying the subsidiarity and proportionality principles. The Ambient Air Quality Directives establish minimum standards of air quality to be achieved throughout the EU and the revision of the Directives would maintain this approach, leaving to the Member States the choice of means to achieve the common standards. Hence, the legal basis of EU intervention will remain Article 192 of the Treaty on the Functioning of the European Union (regarding the area of environment which comes under shared competence between the EU and the Member States).

B. Objectives and Policy options

The objective of the initiative is to further enhance the effectiveness of EU air quality legislation, specifically the Ambient Air Quality Directives, to avoid, prevent or reduce the harmful effects of air pollution on human health and the environment, in line with the European Green Deal’s zero pollution ambition. It also has as an objective to improve the efficiency of the legislation, making it easier to meet a given level of effectiveness.

The policy areas outlined below are not intended to be mutually exclusive. For each of these policy areas, policy options will be developed. The stakeholder consultations, including public consultation, and studies will be used to specify the alternative approaches. The baseline policy will be the current Directives.

⁵ EEA Report 10/2019. ‘Air quality in Europe – 2019 report’.

⁶ European Commission (2017). Special Eurobarometer 468: ‘Attitudes of European citizens towards the environment’. In nine Member States ‘air pollution’ topped the list of environmental issues named.

Policy area 1: a closer alignment of the EU air quality standards with scientific knowledge including the latest recommendations of the World Health Organisation (WHO). The revised WHO Air Quality Guidelines, anticipated for the first half of 2021, are expected to include updated guideline exposure levels for a number of air pollutants, and in particular for the most harmful fine particulate matter (PM_{2.5}). The impact assessment will consider and assess different policy options and scenarios defined by the level of ambition in aligning with the revised WHO Air Quality Guidelines (and the timing of this alignment). It will also consider including into the Directives an explicit mechanism for adjusting air quality standards to technical and scientific progress, including for air pollutants that are presently not covered.

Policy area 2: improving the air quality legislative framework, including provisions on penalties and public information, in order to enhance effectiveness, efficiency and coherence. This policy area will consider merging Directives 2008/50/EC and 2004/107/EC into a single instrument and removing redundant provisions identified in the Fitness Check. It will assess policy options for amended provisions on sanctions and penalties to be established in national systems for non-fulfilment of relevant obligations deriving from the Directives.⁷ It will also consider options for a stronger harmonisation of public information, including criteria on how and what kind of information is made available to the public also involving the relevant health authorities in Member States.

Policy area 3: strengthening of air quality monitoring, modelling and plans. Policy options will explore solutions to improve, simplify and increase precision and coherence of requirements with regard to air quality monitoring, modelling and plans. This could include inter alia options for more detailed rules on the number and location of sampling points; expanding the monitoring requirements to include harmful air pollutants and relevant health information currently not covered (based on recommendations by the WHO, e.g. for black carbon or ultrafine particles); enabling the enhanced use of air quality modelling for air quality assessment; as well as streamlining and adjusting minimum elements required for an effective air quality plan.

C. Preliminary Assessment of Expected Impacts

Air pollution and poor air quality results in substantial health impacts as well as economic, social and environmental impacts. The pollution consists of local components and transboundary contributions, as well as compound effects where several air pollutants interact. Moreover, there are synergies between policy areas, as well as tensions between air pollution policy and economic sectors such as energy, agriculture or transport. Opportunities exist to build on synergies with sectoral policies in particular in the context of decarbonisation.

Likely economic impacts

The initiative should result in reduced costs of air pollution borne by society at large, e.g. the health costs related to air pollution-related premature death and diseases, productivity losses due to both workdays lost and reduction in workers' productivity, crop yield losses, the deterioration of the natural landscape affecting the tourism sector, damage to buildings. Previous estimates, including published in the Fitness Check, point to direct annual costs in excess of EUR 20 billion, and indirect annual costs in the order of EUR 330 to 940 billion.⁸

The extent to which such costs would be avoided, including the cost of action (measures) compared to the cost of inaction (harmful impacts) in the baseline, will be thoroughly assessed including through modelled calculation. The impact assessment will look at the costs of measures to achieve the levels of air quality standards in each option, as well as the economic benefits, the monetised value of improved health of citizens (including avoided premature death and/or years of life lost) and benefits to the environment.

In addition, the assessment would also look at administrative costs associated with air quality assessment and management (including monitoring and modelling).

Likely social impacts

The main expected social impact is the improvement in public health, in particular as regards vulnerable groups, notably children, pregnant women and elderly citizens and those already suffering from pre-existing conditions.⁹ As noted in the Fitness Check, air pollution also brings social cost in terms of inequalities and social sustainability: groups of lower economic status tend to be more negatively affected by air pollution, as a result of both greater exposure and higher vulnerability.¹⁰

⁷ Taking into account the latest case law of the Court of Justice of the European Union (CJEU), including on the entitlement of citizens to bring claims for damages, within the conditions set by the CJEU case law on State Liability.

⁸ See, for example, estimates presented in the Impact Assessment underpinning the Clean Air Programme for Europe, SWD(2013)532). Direct economic costs include those incurred by lost workdays, healthcare costs, crop yield loss, and damage to buildings. The figure for indirect economic costs reflects costs of health impacts to society more generally.

⁹ European Environment Agency – Report No 21/2019. Healthy environment, healthy lives: how the environment influences health and well-being in Europe

¹⁰ European Environment Agency – Report No 22/2018. Unequal exposure and unequal impacts: social vulnerability to air pollution, noise and extreme temperatures in Europe

Likely environmental impacts
Air pollution has negative impacts on natural ecosystems and biodiversity. It can damage crops, forests and other vegetation, and it can cause eutrophication and acidification. The Fitness Check refers to estimates of EUR 14 to 54 billion per year in costs of ecosystem impacts of air pollution. To the extent that the objective of the initiative is to further improve ambient air quality, it is expected that it would have positive impacts on the environment and climate. These impacts and their economic consequences will be analysed.
Likely impacts on fundamental rights
To the extent that the objective of the initiative is to further improve ambient air quality, the initiative will support the high level of protection of health and environment as envisaged in the EU Charter of Fundamental Rights (Article 35, second sentence and Article 37). Depending on the level of ambition chosen (see above), the initiative may also enhance the implementation of the right to an effective remedy (Article 47 of the Charter).
Likely impacts on simplification and/or administrative burden
The assessment of the administrative burden will take into account that the revision of the Ambient Air Quality Directives is building on an existing framework already implemented in the Member States. The initiative will explore the simplification and burden reduction potential as identified in the Fitness Check, namely in relation to provisions of the current framework that have become redundant. It will also consider the burden reduction potential in relation to air quality assessment and management (including monitoring and modelling).
D. Evidence Base, Data collection and Better Regulation Instruments
Impact assessment
The Commission will contract an external study to underpin the impact assessment, including the necessary quantitative scenario analysis based on modelling. The work on this study is planned to start in early 2021 and incorporate the revised World Health Organization Air Quality Guidelines when available (these are expected in the first half of 2021). Impacts will be assessed and compared, including through cost-effectiveness and multi-criteria analysis.
Evidence base and data collection
The impact assessment will build on the results of the Fitness Check of the Ambient Air Quality Directives and the underlying support study . The assessment will also make further use of other sources, in particular: <ol style="list-style-type: none"> (1) Reports on the state of air quality and air pollution and its impacts (in particular, but not limited to, those published by the European Environment Agency, Joint Research Centre, and World Health Organization). (2) Guidance documents, recommendations and reports relating to the implementation of the Ambient Air Quality Directives, (including, but not limited to, reports by the European Parliament, European Court of Auditors, AQUILA, FAIRMODE as well as Commission Staff Working Papers and Guidance documents). (3) Key case-law of the Court of Justice of the European Union (including: <i>Janecek</i> (C-237/07), <i>ClientEarth</i> (C-404/13), <i>Craeynest</i> (C-723/17) and <i>Deutsche Umwelthilfe</i> (C-752/18), as well as judgments delivered in proceedings for failure of a Member State to fulfil obligations, delivered to date (C-488/15, C-336/16, C-636/18, C-638/18, C-644/18). <p>The impact assessment will also rely on reports prepared to underpin earlier air policy related reviews (including those related to the air policy review of 2013), or as done in the context of the Thematic Strategy on Air Pollution of 2005, as well as the First Clean Air Outlook of 2018 and the upcoming 2020 Clean Air Outlook.</p> <p>Additional evidence will be sought in particular on the existing assessments of impacts of closer alignment with WHO Air Quality Guidelines as prepared by Member States where available, as well as in relation to OECD countries to gain a comparative perspective (in particular in relation to the United States and Switzerland).</p>
Consultation of citizens and stakeholders
Stakeholders will be consulted in line with the Better Regulation Guidelines of the Commission (a) to confirm the scope of the impact assessment, (b) to gather factual information, data and knowledge to underpin the assessment of impacts of different policy options. <p>In line with the Commission's general principles and standards, a range of consultation tools will be used to collect the views of a range of stakeholders. Stakeholders to be consulted include the Member States' competent authorities at all relevant levels i.e. national, regional and local, civil society and non-governmental organisations, organisations representing industry and trade, researchers and scientific community, international organisations (such as WHO, UNEP, UNECE, OECD), as well as citizens.</p> <p>As a minimum, the following consultation activities are foreseen:</p> <ul style="list-style-type: none"> • A minimum 12-week online public consultation in all official EU languages. Replies to this online public consultation can be provided in any official EU language.

- A first stakeholder meeting prior to, or during the public consultation will assist in identifying and confirming the issues for the impact assessment (possibly as part of EU Green Week 2021).
- A second stakeholder meeting will take place before the finalisation of the impact assessment with the aim to receive feedback that would assist in its completion.
- In addition, the Commission will explore opportunities to discuss with stakeholders on matters regarding this initiative during related events, such as the EU Clean Air Forum 2021.

The outcome of all stakeholder consultations carried out will be made available via the website of the European Commission.

Will an Implementation plan be established?

An implementation plan is unlikely to be needed as the Ambient Air Quality Directives are already in force, and the implementation structures are in place in the Member States with the competent authorities appropriately designated. In addition, the Commission will continue to support Member States in their implementation efforts through the mechanisms laid out in the Commission Communication [‘A Europe that protects: Clean air for all’](#).¹¹ The usefulness of a potential implementation plan would be further considered in the impact assessment.

¹¹ COM(2018) 330 final. A Europe that protects: Clean air for all.