

Supporting the Fitness Check of the EU Ambient Air Quality Directives

*Background document for the stakeholder
workshop on 15 January 2019*

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1 Introduction

This document presents the draft emerging findings from the support study for the Fitness Check of the EU Ambient Air Quality (AAQ) Directives, 2008/50/EC and 2004/107/EC, also considering the corresponding Implementing Decision 2011/850/EC and Commission Directive (EU) 2015/1480.

The support study of the Fitness Check is conducted by a consortium of experts led by COWI and will provide input and background for the Commission report for the Fitness Check, which the Commission plans to issue during the second half of 2019.

The information and views set out in this background paper are those of the authors and do not represent the official views of the Commission.

The document has been prepared as background information for the second stakeholder workshop on the Fitness Check on 15 January 2019. The aim of the workshop is to present and discuss the preliminary findings of the evaluation support study and to receive additional feedback from stakeholders to assist in its completion.

The Fitness Check support study follows the Better Regulation Guidelines¹ and builds on the Fitness Check Roadmap². As such, it seeks to assess the two complementary AAQ Directives as well as the relevant implementing acts, based on the five criteria:

Relevance: including an assessment of the extent to which the AAQ Directives still set appropriate objectives, address the most pressing air pollutants, and set meaningful air quality standards to protect human health and ecosystems in accordance with evolving scientific evidence.

Effectiveness: evaluates to what degree the provisions of the AAQ Directives are effective in delivering on their objectives and acted as a driver for improved air quality in Europe. It also questions to what extent factors influencing the observed achievements can be linked to the EU intervention, including any issues with non-compliance.

Efficiency: identifies the main cost and benefits linked with the AAQ Directives and evaluates to what degree the benefits of improved air quality justify the costs. It also assesses whether there have been significant differences in costs (or benefits) between Member States, and if so, what is causing them. Finally, the Fitness Check aims to evaluate whether the monitoring and reporting approaches mandated by the AAQ Directives (and their respective implementation) are fit for purpose.

Coherence: five levels of coherence are considered, covering the extent to which the AAQ Directives are coherent: internally i.e. within each Directive; between each other; within the overarching EU Clean Air policy framework (including with the national emission limits via the Directive on the reduction of national emissions of certain atmospheric pollutants (NEC Directive, 2016/2284/EU), and emission standards established for key pollution sources; with other EU legislation (e.g. on transport, climate, energy, agriculture or nature protection); and with international commitments.

EU value added: assesses to what degree common EU air quality standards and comparable monitoring, reporting and assessment regimes have enabled Member States to take successful action to improve, beyond what would have been possible without EU action, and whether the current distribution of responsibilities between EU, Member State, regional and local levels respectively, is an effective one.

¹https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en

² https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-3763998_en

The remainder of this document presents the specific evaluation questions elaborated in order to assess these aspects, and the emerging findings coming out of the evidence gathering and analysis conducted to date.

2 Emerging findings

2.1 Relevance

The relevance criterion concerns the extent to which the objectives of the AAQ Directives are still relevant and whether the requirements of the legislation are still necessary and appropriate. This is assessed through two evaluation questions:

Evaluation Question (EQ) 1: How relevant are the goals and objectives of the AAQ Directives to the needs of citizens; do the AAQ Directives still address the most relevant pollutants and set relevant standards and obligations to protect human health and the environment; and are the AAQ Directives sufficiently adapted or adaptable to evolving technical and scientific progress?

- Air quality is a major health and environmental concern for EU citizens. Despite improvements over the last decade, a substantial share of the EU population continues to be exposed to air pollution at levels deemed unhealthy by scientific standards, especially in cities. Stakeholders generally find that the AAQ Directives still address the current needs of the citizens across the EU.
- Scientific evidence has grown on the harmful effects of the pollutants currently regulated by the AAQ Directives. In contrast, no evidence that any of the pollutants covered have only a limited adverse effect on human health/environment has been identified. As for pollutants currently not covered, there is a growing body of research suggesting relevance of various components of particulate matter, such as black carbon or ultrafine particles. In terms of negative impacts on biodiversity and ecosystems, there is evidence of environmental implications of ammonia due to its important role in ecosystem and global nitrogen cycle, as well as contribution to secondary particle formation.
- Improved air quality in the EU over the past few decades as regards several pollutants show that the environmental objectives and obligations laid down by the AAQ Directives have been helpful in stimulating Member State action on air quality and that they still represent a key tool to improve air quality.
- However, review of recent research indicates that the standards laid down by the AAQ Directives are not fully reflective of the recent and robust scientific evidence suggesting serious adverse health effects at lower concentration levels. A number of EU standards are less stringent compared to the current World Health Organization Air Quality Guidelines³. This is the case in particular for PM_{2.5} (annual mean concentration), PM₁₀ (annual mean concentration and, looking at the statistical indicator, also the daily mean concentration), and SO₂ (daily mean concentration). Also, the AAQ Directives do not set short-term standards for PM_{2.5}, which are considered important in order to protect against the peaks of pollution that would otherwise lead to substantial excess morbidity or mortality.
- The AAQ Directives provide a degree of flexibility in relation to amending non-essential elements of the Directives and this opportunity has been used to account for the experience gained in implementing the Directives and the most recent standards for the sampling and measurement of different pollutants. Furthermore, the AAQ Directives envisaged a review of some of their essential elements as well, in 2013 for Directive 2008/50/EC and by the end of 2010 for Directive 2004/107/EC, but this did not lead to modifications of those essential elements. Moreover, there are no specific mechanisms in the AAQ Directives laying down an

³ <https://www.who.int/airpollution/publications/aqg2005/en/>

obligation to carry out a periodic review of the AAQ Directives with a view of adapting them to the latest technical and scientific progress.

EQ 2: How far are the Directives aligned with key EU priorities? Which elements in the Directives are essential to deliver on these priorities, have elements become redundant?

- The AAQ Directives are found to be aligned with the key EU air policy priorities in the Clean Air Programme for Europe⁴ (short- and long-term priority) and the Seventh Environmental Action Programme⁵ (7th EAP). The AAQ Directives are found to be generally aligned with the EU's climate and energy policies.
- In order to achieve the short-term priority of the Clean Air Programme for Europe, three elements in the AAQ Directives are considered essential:
 - the requirement to draw up air quality plans (Art. 23 of Directive 2008/50/EC) and short-term action plans (Art. 24 of Directive 2008/50/EC),
 - the elements of the AAQ Directives concerning assessing ambient air quality in order to monitor trends (Art. 3, 4, 5, 6, 9 of Directive 2008/50/EC and Art. 4(1), (2), (3), (4), (5), (6), (7), (8), (9), (11), (12), (13)) of Directive 2004/107/EC and the relevant Annexes) and
 - the elements of the AAQ Directives laying down air quality standards (Art. 12, 13, 14(1), 15, 16, 17(1) of Directive 2008/50/EC and Art. 3(1) of Directive 2004/107/EC and the respective Annexes).
- The long-term priority of the Clean Air Programme for Europe of ensuring no exceedances of WHO guideline levels for human health and tolerance limits for ecosystems (critical levels) is aligned with the objectives of the AAQ Directives, but no elements of the AAQ Directives were identified as specifically contributing to achieving this priority.

2.2 Effectiveness

The effectiveness criterion aims to assess the extent to which the objectives of the Directives have been achieved, and the factors that may have contributed or hindered progress towards achieving these objectives. This is assessed via one question, encompassing the objectives of the Directives:

EQ 3: What factors have contributed to meeting the objectives of the AAQ Directives or to failing to meet these objectives, in terms of: 1) defining common methods to monitor and assess air quality; 2) assessing ambient air quality in order to monitor trends; 3) establishing standards of air quality to achieve across the EU; 4) ensuring that information on air quality is made public; 5) maintaining good air quality, improving it where it is not good; to what level can these factors be attributed to provisions of the AAQ Directives?

- Overall, evidence shows that the extent of achievement of the objectives varies: namely, while the AAQ Directives have succeeded in aligning/homogenising Member State approaches, by establishing common methods for air quality assessment, there are continued exceedances of air quality standards for some pollutants in many parts of the EU.

⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A Clean Air Programme for Europe' COM (2013) 918, Brussels, 18.12.2013.

⁵ Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet', OJ L 354, 28.12.2013.

- Based on the analysis of Member State reporting, it appears that the assessment of air quality, in terms of minimum numbers of sampling points, is largely in line with the AAQ Directives. However, some differences have been identified in the approach taken by the Member States in particular in relation to supplementing fixed concentration measurements with other methods (for the official air quality assessment reported to the Commission). Previous work by FAIRMODE as well as targeted stakeholder consultation supports this finding.
- In terms of pollutant concentrations, Member State reporting (for the years 2013 to 2017) indicates that exceedances of environmental objectives for at least one pollutant were recorded in nearly all Member States. PM₁₀, NO₂ and O₃ are the pollutants for which the highest number of Member States have reported exceedances in the period covered by the study. The maximum exceedances in the EU related to the three pollutants mentioned above were up to three times higher than the environmental objective. For some, but not all environmental objectives, the highest exceedances have decreased in the period analysed. According to the latest EEA report⁶, the proportion of stations reporting exceedances of these pollutants is between 1% and 20%, depending on the Member States, the pollutant and the applicable environmental objective.
- The analysis of competent authority websites indicates that the information on air quality is available to the public at Member State level. However, the information was assessed to be of mixed quality, level of detail and accessibility (to citizens) among Member States. This was highlighted by the targeted consultation responses as well, re-enforcing the assessment. At the same time, the EEA website and reports make EU-wide as well as pan-European level information available to the public.
- Member State authorities and NGOs consulted noted that the AAQ Directives encourage action, through the provision of limit values and thus strengthened enforcement. However, continued exceedances and the number of ongoing infringement cases indicate that the action taken in the Member States is not always sufficient or not fully effective.
- Among the positive factors stemming from the AAQ Directives' provisions that have contributed to the achievement of the objectives, the most prominent have been found to be: the definition of common methods for monitoring (ensuring comparability of data), setting of standards and an obligation to take action (Article 23 in Directive 2008/50/EC), as well as specific provisions on information provision and reporting. The role of the EEA in supporting these processes has been acknowledged by the stakeholders consulted and evidenced by other related evaluations.
- However, several hindering factors have been identified, either directly stemming from the provisions of the AAQ Directives or external factors:
 - Some Member States representatives pointed to insufficient detail or guidance in relation to certain aspects of the AAQ Directives, such as the assessment regimes: definition of zones, definitions of site types and siting criteria for measurement stations, as well as provisions on the use of modelling to complement fixed measurements. This indicates that the Member States take somewhat different approaches to the assessment of air quality (as also evidenced by different assessment information reported, e.g. approach to zoning, and assessment methods used).
 - In relation to external factors, analysis and stakeholders' views collected identified limited financial resources compared to the scale of the problem (in particular among

⁶ Air quality in Europe – 2018 report, EEA Report No 12/2018, based on data for the year 2016. <https://www.eea.europa.eu/publications/air-quality-in-europe-2018>

EU-13 Member States), and organisational issues in the Member States (complexity of governance structures, lack of awareness across relevant institutions).

- Both scientific evidence collected as well as stakeholder views confirmed that some EU policies have the potential to affect air quality, not always in a positive manner (further detailed under coherence).
- The views expressed through the online public consultation support the above findings, showing that the public considers the AAQ Directives overall effective in terms of achieving outputs related to monitoring network, establishing standards and providing information. On the other hand, the views were less positive in relation to achieving coherent action to avoid, prevent, or reduce the effect of poor air quality.

2.3 Efficiency

The assessment of efficiency compares the inputs used for a certain activity with produced outputs. The efficiency criterion is assessed using four evaluation questions:

EQ 4: What are the costs and benefits (monetary and non-monetary) associated with implementation of the AAQ Directives in the Member States, and in the EU; have the benefits (improved air quality) been achieved in a cost-effective manner and to what extent have costs been equitably distributed across different sectors?

EQ 5: Where there are significant cost differences between MS and / or between sectors and/or as regards costs to stakeholders (including social costs as a result of poor implementation), what is causing them; are the costs of compliance proportionate to the benefits brought by the directives?

EQ 6: How efficient are monitoring, reporting and assessment regimes, what are the administrative costs to the Member States and to the Commission; taking account of the objectives and benefits of the directives, is there evidence that they have caused unnecessary or excessive administrative burden?

EQ 7: Has the implementation of the AAQ Directives supported or hampered EU competitiveness in the global economy; has the implementation of the AAQ Directives improved or been detrimental to economic, social and environmental sustainability?

- The assessment of efficiency of the AAQ Directives has experienced a lack of data on the size of both the costs and effects of actions taken, with a particular lack of data on ex-post assessment of actions taken to improve air quality. Little data has been obtained from the stakeholder and Member States' consultation undertaken in the current assessment.
- The AAQ Directives require pollution monitoring, modelling and the development of plans. Reported annual costs for monitoring networks range from around €1 million in the cases of Slovakia and Croatia, to €71 million for France; however, there is a lack of consistency in the reporting of these costs, notably in terms of their coverage. For example, whilst the figure for France covers costs of "all air pollution monitoring and laboratories in 2016", i.e. going beyond the requirements of the AAQ Directives, the information obtained from Spain lacks data for some regions, and the data for Bulgaria (€1.89 million in 2017) represents the total cost for all national environmental monitoring. While acknowledging the limitations in the data obtained, costs directly linked to the requirements of the AAQ Directives range, for the countries that have returned data, from around €0.20 to €1.10 per capita per year. Nonetheless, given the requirements of previous EU legislation and additional national requirements on air quality monitoring, the AAQ Directives are likely to have led to only a

small increase in total costs for this aspect. Some stakeholders have identified possible actions for improving efficiency of monitoring systems, for example by providing further guidance on the use of indicative measurement and/or modelling.

- A range of measures are available to Member States for improving air quality at a local level, including actions to reduce traffic (e.g. through modal shift), promote cleaner vehicles (e.g. low emission zones, differential parking charge), reduce domestic emissions (e.g. through boiler replacement schemes and controls on fuels) and additional actions beyond Best Available Techniques (BAT) for industrial facilities that make a significant contribution to limit value exceedance.
- Implemented measures tend to target the sectors considered the most responsible for limit value exceedance, suggesting a fairly proportionate distribution of costs of local air quality improvement across those sectors/population. Many measures have benefits extending beyond air quality improvement (reducing congestion, noise, greenhouse gases, etc.), reducing the overall burden on society and increasing efficiency of actions. Furthermore, there are numerous cases, such as the introduction of congestion charging zones, where the primary rationale for specific action being taken is not air quality, but local air quality benefits from the measure.
- There is limited availability of data, especially ex-post data, on costs and effectiveness of adopted measures. This lack of data limits the ability of decision makers to fully underpin their decisions regarding the selection of measures to address poor air quality with economic and/or cost-effectiveness analyses – and this may affect the efficiency of the measures that are adopted. It also limits the potential for learning across schemes and is a barrier to future improvements in efficiency. Total costs reported by Member States for the measures cited as being put in place to reduce emissions in order to respect the AAQD standards (excluding costs of monitoring, reporting, etc.) run into many billions of euro, though these costs often include requirements of other legislation on air quality (such as under the Industrial Emissions Directive (IED)) and measures taken primarily to meet other objectives, such as reducing greenhouse gas emissions or congestion, increasing energy efficiency, and infrastructure development. It has not proved possible so far to separate out the costs of measures that are specific to air quality improvement.
- An estimate of the broad order of magnitude of the health benefits of cleaner air associated with the AAQ Directives has been made by considering the reduction in the population subject to limit value exceedance for PM, NO₂ and O₃ from 2008 to 2016. A best estimate of €25 to 76 billion is made for this period for the EU. Several factors (especially conservatism in assumed reduction in exposure for the population as a whole, lack of account of non-health benefits and co-benefits) suggest that this is an underestimate of the actual benefit. On the other hand, the fact that improved air quality is not only due to the AAQ Directives but also to other legislation limiting air pollutants emissions, adds some bias towards a possible overestimation of the estimated benefits.
- Contrasted with these benefits are the costs of poor implementation (i.e. missed benefits), considered here in relation to the degree of non-compliance with limit values for PM, NO₂ and O₃. The economic value of health impacts associated with exceedance is estimated at approximately €100 to €517 billion for the EU for the period 2008 to 2017, and around €8.4 to €39.0 billion for the year 2016. The magnitude of the estimates arises from exceedance affecting a large number of people (13% of the EU urban population for PM₁₀, 12% for O₃ and 7% for NO₂ in 2016, acknowledging that the figures for population exposed to exceedance to the limit values for PM₁₀ and NO₂ almost halved over the period of interest). Results are, as before, subject to uncertainty, in this case relating particularly to the

estimation of average exposure. Again, the estimates provided should not be considered of high accuracy but they do provide an order of magnitude of the damage associated with non-compliance.

- Turning to the issue of impacts on EU competitiveness in the global economy and broader issues of economic, social and environmental sustainability, the evidence base is limited, enabling only a theoretical assessment of effects. It is concluded that impacts of the AAQ Directives (distinct from legislation on air pollution more generally) on competitiveness are likely to be very low, given that these Directives mainly address local exceedances associated with traffic and other low-level emission sources (such as for domestic heating). For some industries, the need to meet air quality standards under the AAQ Directives may act as a spur for innovation that will open up new market opportunities in the future.

2.4 Coherence

The assessment of coherence looks at how well different actions work together, and thus points to synergies as well as areas where there are potentially contradictory objectives or approaches that may cause inefficiency. There are two assessment questions on coherence, and these cover five levels: internally i.e. within each of the two AAQ Directives; between each other; within the overarching EU Clean Air policy framework (legislation on emissions); with other EU legislation; and with international commitments.

EQ 8: To what extent do the AAQ Directives complement or interact with other environmental policies that affect air quality, or that are affected by it, at EU level and at Member State level (such as the NEC Directive and IED Directive as well as EU climate legislation and policy); and how do these policies and legislation support or hamper the implementation of the EU air quality legislation?

- The AAQ Directives form a coherent regulatory system to improve air quality in the EU. However, one key difference was identified between Directive 2008/50/EC and Directive 2004/107/EC: the 2008 Directive takes a more stringent approach, setting *limit* values 'to be attained' (while the 2004 Directive only includes *target* values 'to be attained where possible') and requiring the adoption of air quality plans to address exceedances.
- The AAQ Directives are found to be coherent with EU legislation addressing air pollutant emissions, in particular with the National Emissions Ceiling (NEC) Directive, the Medium Combustion Plant (MCP) Directive and the Industrial Emissions Directive (IED), which incorporates the former Large Combustion Plant (LCP) Directive. This coherence was strengthened further over the evaluation period, with the 2016 revision of the NEC Directive, which now calls on Member States to coordinate with the 2008 AAQ Directive requirements when developing their programmes for attaining their national emission reduction objectives and establishing monitoring networks.
- The AAQ Directives, in particular Directive 2008/50/EC are found to be aligned with the objectives of the Convention on Long-Range Transboundary Air Pollution. It is also in line with Commission efforts to reduce air emissions from ships in the context of the International Maritime Organization, which materialised through amendments to the International Convention for the Prevention of Pollution from Ships (addressing SO_x, NO_x and PM emissions), and subsequently incorporated into EU legislation. On this basis, the AAQ Directives are found to be compatible with these *international commitments*.
- Concerning other EU environmental legislation and policies, the 7th EAP highlights the importance of attaining EU air quality requirements, by setting a specific objective in this respect. Studies have shown that implementation of the Nitrates Directive can support the AAQ Directives by reducing agricultural emissions of NO_x and ammonia. While the AAQ Directives (specifically Directive 2008/50/EC) call for coordination with plans prepared under

the Noise Directive, the Noise Directive does not contain a similar reference to air quality plans. The AAQ Directives' requirements seek to protect vegetation and ecosystems, and thus are coherent with the Habitats and Birds Directives.

- Studies have found that action for climate mitigation should, overall, reduce air pollution emissions. The 2050 Low Carbon Roadmap (2011)⁷ and the Long-Term Emissions Reduction Strategy (2018)⁸ specifically refer to synergies with air quality goals. However, policy coordination is needed to ensure that measures for climate and for air quality are mutually supportive where possible. Stakeholders have raised concerns that climate mitigation measures in some specific areas may worsen air quality, notably if climate policies promote diesel-powered vehicles and biomass combustion. While EU climate measures targeting transport do not promote specific technologies, Member States and industry have at times supported diesel powered mobility as a compliance strategy.

EQ 9: To what extent do the AAQ Directives complement or interact with sectoral policies that affect air quality, or that are affected by it, at EU level and at Member State level (such as energy, transport, agriculture, cohesion, fiscal policies); and how do these policies support or hamper the implementation of the EU air quality legislation?

- Among key sectoral policy, *EU transport legislation and policy documents* highlight environmental protection and air quality among their goals and set limits on vehicle emissions and quality requirements for fuels and as well as promote alternatives to road transport. Issues identified (and raised by stakeholders) include greater stringency for petrol vehicle standards compared to diesel-powered cars as well as differences between test results and real-world driving conditions: these elements can hinder achievement of air quality goals.
- Legislation for the *Common Agricultural Policy* recognises the need for environmental protection and supports actions to reduce air emissions, including through Pillar II for rural development, but the mobilisation of such support action over the past financing period has been limited.
- *EU funding instruments* – including the European Structural and Investment Funds, CAP financing and the LIFE+ Programme – support Member State actions to improve air quality. These include investments directly for air quality measures as well as those for energy efficiency, renewable energy, cleaner transport and environmental management in agriculture and rural development.
- With regard to fiscal measures, the *Energy Taxation Directive* allows Member States the option to tax diesel fuel at a lower rate than petrol, which may be at odds with the objectives of the AAQ Directives, if and when diesel vehicles emit more air pollutants. In some Member States, diesel is taxed at a lower rate; in addition, in some Member States vehicle taxation does not promote lower-emissions vehicles and fiscal incentives support greater private vehicle use.
- Urban areas across the EU are developing *Sustainable Urban Mobility Plans*, which can support air quality objectives. The assessment so far has, however, found only a few examples (such as in the Netherlands) where Member State air quality plans and objectives are coordinated with spatial planning.

⁷ "A Roadmap for moving to a competitive low carbon economy in 2050", COM(2011) 112, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0112&from=EN>

⁸ "A Clean Planet for All" Communication, COM(2018) 773, https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

- Analysis for this study has also shown that the level of *sectoral coordination within Member States* varies. A further issue is coordination between national and local authorities on air quality: the report of the European Court of Auditors noted that this is often insufficient.

2.5 EU Added Value

The EU added value criterion brings together the findings from all other evaluation criteria and focusses on the benefits and changes resulting from the AAQ Directives that are additional to those that would have resulted from action at local, regional or national level otherwise. Under the principle of subsidiarity (Article 5 of the Treaty on the European Union), the EU should act only when the objectives can be better achieved by EU action rather than action by the Member States or at regional or local level.

Evaluation Question 10: To which degree have the AAQ Directives, including common EU air quality standards and comparable air quality assessment, management and information approaches, enabled Member States and their competent authorities to take successful action to improve beyond what would have been possible without EU action?

- Overall, the evidence collected suggests that the implementation of the AAQ Directives has brought EU added value in several manners.
- The assessment suggests that the AAQ Directives brought EU added value by enforcing a more harmonised approach across Member States in setting air quality standards (limit and target values). The binding nature of air quality standards has been an important tool for driving pollutant reductions in the EU Member States, thus offering added value when compared to a situation where such provisions would not exist. The alignment/harmonisation of air quality standards both in terms of level of protection (limits set) is considered by stakeholders to be one of the most important aspects of EU added value arising from the AAQ Directives.
- Directive 2008/50/EC was the first to set limit values for PM_{2.5} whereas Directive 2004/107/EC introduced target values for arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons. Thus, the AAQ Directives have brought added value by establishing harmonised standards for 6 additional pollutants across the EU. In contrast, limit values for SO₂, NO₂, NO_x, PM₁₀ and lead had already been in force since the adoption of the Council Directive 1999/30/EC (First Daughter Directive), limit values for CO and benzene were introduced by Directive 2000/69/EC (Second Daughter Directive) and standards for O₃ were introduced by Directive 2002/3/EC (Third Daughter Directive).
- Furthermore, the assessment indicates that the AAQ Directives have brought added value in terms of harmonising the approach to measurements of concentrations of pollutants and modelling across Member States. However, some key Member State stakeholders indicate that some provisions have not provided sufficient detail or guidance. This is the case in particular for the assessment regimes which can lead to Member States taking somewhat different approaches to the assessment of air quality.
- The AAQ Directives also contributed to further streamlining the air quality data reporting and collection at EU level. The requirements of the AAQ Directives had implications in terms of the update of the previous AirBase and the implementation of the new Air Quality e-Reporting database managed by the EEA. The improved database allows for a more systematic and streamlined data collection process and improved comparability of the data collected across Member States. The increased availability of data on air quality at EU level (and at national level) has also brought EU added value in terms of ensuring access to information to the public and contributing to better awareness amongst citizens, businesses and other stakeholders to the air quality problem.

- Even though the AAQ Directives do not explicitly stress the right of access to justice⁹, there is evidence of EU added value from the enforcement of AAQ Directives' provisions. Across 10 Member States¹⁰, there were several cases brought to national courts by citizens and civil society organisations. Some of the cases were a direct result of provisions of the AAQ Directives in cases where air pollutant prolonged exceedances were registered or where air quality plans were not effective or were insufficient. In some Member States (e.g. Czech Republic, Germany, France, Italy and the United Kingdom) the national courts have ruled in favour of citizens or civil society organisations (e.g. ClientEarth) and required more action to be taken by Member States to meet air quality standards, which is an eloquent proof of EU added value brought by the AAQ Directives.
- In parallel to legal action by affected citizens and civil society organisations, legal action has also been pursued by the European Commission through infringement procedures. The European Commission has taken legal action due to exceedances of air quality standards and non-compliance with the requirement to effectively implement air quality plans, as well as on monitoring of air quality. As of December 2018, there were 15 ongoing infringement procedures due to PM pollution¹¹, 13 due to NO₂¹² and 1 due to SO₂¹³ and 2 other infringement proceedings regarding air quality monitoring¹⁴. Currently, there are no ongoing infringement procedures on other air pollutants covered by the AAQ Directives.

Evaluation Question 11: What has been the EU added value of the AAQ Directives, do the Directives and their means of implementation create synergies or overlaps with other Community objectives, and how has the distribution of responsibilities between EU, Member State, regional and local level impacted on air quality management?

- As presented above (see section on coherence), the AAQ Directives have ensured synergies with other EU objectives, in particular in the areas of transport, energy and agricultural policy.
- Key Member State stakeholders indicate that some challenges still remain in terms of distribution of responsibilities in the implementation of air quality plans. In particular, evidence collected from some Member States suggests that there is insufficient clarity in terms of responsibilities and coordination between the regional level (responsible for drafting the air quality plans) and the national level (sometimes responsible for enforcing measures included in the air quality plans). Furthermore, some Member States indicate that the lack of concrete remediation measures in case of non-implementation of measures included in the air quality plans makes it challenging to ensure that the relevant authorities assume ownership and responsibility for taking appropriate actions.

⁹ However, access to justice is provided for by Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC (OJ L 156, 25.6.2003) which refers to the AAQ Directives.

¹⁰ Germany, Sweden, United Kingdom, Hungary, Italy, the Netherlands, Austria, Czech Republic, Poland, France.

¹¹ Bulgaria; Hungary; Italy; Poland; Romania; Czech Republic; France; Germany; Greece; Latvia; Portugal; Slovakia; Spain; Sweden; Slovenia.

¹² France; Germany; United Kingdom; Italy, Spain; Austria; Belgium; Czech Republic; Denmark; Hungary; Luxembourg; Poland; Portugal.

¹³ Bulgaria.

¹⁴ Romania; Slovakia.