

Air quality - revision of EU rules: Targeted survey questionnaire (Part 1 of 2)

Fields marked with * are mandatory.

Air quality - revision of EU rules Targeted survey questionnaire – Part 1 of 2

Background

Clean air is essential for our health and that of the environment. The [Ambient Air Quality \(AAQ\) Directives](#) set EU air quality standards to avoid the build-up of excessive air pollutant concentrations. The AAQ Directives also define common methods to monitor, assess and inform regarding ambient air quality in the European Union. Furthermore, the AAQ Directives require action, when EU air quality standards are exceeded, in order to avoid, prevent or reduce harmful effects on human health and the environment as a whole.

As part of the [European Green Deal](#), the EU is revising these EU air quality standards, to align them more closely with the recommendations of the World Health Organization (see an overview of the EU air quality standards [here](#)). It also aims to improve the overall EU legislation for clean air, including revising provisions on penalties in case of exceedances, requirements for public information, as well as propose means to strengthen air quality monitoring, modelling and plans to help local authorities achieve cleaner air.

The targeted survey in the context of the Impact Assessment

The Commission has launched an [impact assessment](#) to support the AAQ Directives revision. In line with the Commission's [Better Regulation](#) agenda, a range of stakeholder engagement activities are being conducted to help inform the impact assessment, consisting of an open public consultation, stakeholder workshops and targeted engagement (survey and interviews). This targeted stakeholder questionnaire intends to gather views for consideration in the impact assessment, especially when designing potential (regulatory and non-regulatory) measures to reduce air pollution, strengthen air quality monitoring, modelling and plans, and reduce the related impacts on environment and society.

Why are we consulting you?

To complement the open public consultation, which aimed to widely canvass opinions across all stakeholder groups, via this targeted questionnaire **we are seeking in-depth views of organizations with an interest in or working with EU rules on air quality**. Therefore, this questionnaire is being specifically disseminated to targeted stakeholders including competent authorities, private sector organizations, academics and civil society organizations to seek their views on how specific provisions in the current air quality rules could be revised.

Structure of the survey

Please note that the targeted stakeholder survey has been split into two separate parts. **Part 1 (this survey) only contains questions on Policy Area 1** (Closer alignment of the EU air quality standards with the latest recommendations of the World Health Organization). **Part 2 (forthcoming) will address questions on Policy Areas 2 and 3** (Improving the current air quality legislative framework, including provisions on penalties and public information; and Strengthening of air quality monitoring, modelling and plans). Part 2 will be published shortly (January 2022) and stakeholders will be directly informed regarding its publication.

Part 1 (this survey) is divided into two sections:

- Section 1: About you (respondent identification);
- Section 2: Questions on Policy Area 1 (EU air quality standards).

We estimate that replying to all questions would take about 30 minutes. Please note that not all questions have to be answered. At the end of the questionnaire, there is also an option to upload additional documents, may you deem it relevant.

Thank you for your cooperation. Your input is extremely valuable in supporting the revision of the Ambient Air Quality Directives.

Section 1: About you – Respondent identification

* a) In what capacity are you completing this questionnaire?

- Academic/research institution
- Business association
- Company/business organisation
- Environmental organisation
- Non-governmental organisation (NGO)
- Trade Union
- National public authority
- Regional public authority
- Local public authority
- EU institution or body
- International institution or body
- Other

* b) First name

100 character(s) maximum

Sophie

* c) Surname

100 character(s) maximum

Perroud

* d) Email address (this will not be published)

sophie@env-health.org

e) Organization name

100 character(s) maximum

Health and Environment Alliance (HEAL)

f) Organization size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

g) Organization scope

- International
- National
- Regional
- Local

h) Transparency Register number

255 character(s) maximum

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

00723343929-96

* i) Country of origin

Please add your country of origin, or that of your organisation if you are responding on behalf of your organisation

BE - Belgium

* j) Please indicate the sector(s) you are active in

at most 3 choice(s)

- air quality management
- air quality monitoring
- agriculture / food
- biodiversity and/or environment
- energy
- government
- health care
- investment and finance
- manufacturing
- public health
- raw materials extraction / primary processing
- scientific research

- transport
- none of the above sectors
- other
- I do not know, or I do not want to answer

* k) Publication privacy settings

The Commission may publish the responses to this consultation. You can choose whether you would like your details to be made public or to remain anonymous by clicking the relevant box.

- Anonymous: Only your organisation name, size and scope; country of origin; type of respondent; transparency register number and contribution will be published. All other personal details (name of individual responding) will not be published.
- Public: Your personal details (your name, organisation name and size, transparency register number, country of origin) will be published with your contribution.

I agree with the [personal data protection provisions](#)

* l) Would you be interested in participating in follow-up consultation activities in relation to 'Air quality - revision of EU rules' (i.e. interviews and/or focus groups)?

- Yes
- No

Section 2: Policy area 1 - Closer alignment of the EU air quality standards with the latest recommendations of the World Health Organization (WHO)

There are ongoing [health challenges](#) caused by air pollution. A shortcoming of the current legislation is that the existing [EU air quality standards](#) are not fully on par with the current health guidelines based on the most up-to-date scientific research. Policy options will be developed and assessed with the aim to attain closer alignment of EU air quality standards with the most up-to-date scientific understanding of health impacts associated with air pollution. This includes in particular the consideration of recently published updated WHO recommendations ([WHO Air Quality Guidelines](#)) as well as addressing health outcome shortcomings identified in the scientific literature elsewhere.

The questions under Policy area 1 cover:

- How to address air pollutants covered by the latest WHO Air Quality Guidelines? (*i.e. PM2.5, PM10, O3, NO2, SO2, CO*)
- How to address air pollutants covered by earlier editions of the WHO Air Quality Guidelines only? (*i.e. arsenic, cadmium, nickel, lead, benzene, polycyclic aromatic hydrocarbons*)
- How to address air pollutants for which there are no WHO guideline levels or reference levels? (*i.e. black carbon, ultrafine particles, ammonia, others*)
- What type of EU air quality standards should apply for different pollutants? (*i.e. limit values, target values, long-term objective, average exposure levels, alert thresholds, other*)
- What are barriers to, and wider impacts of, setting revised EU air quality standards? (*i.e. implementation barriers, societal cost, societal benefits*)

1. In your opinion, would it be feasible to meet the most recent WHO recommendations regarding air pollutants across the European Union – or would you see any critical barrier(s) that would prevent their achievement?

Please indicate in the table what degree of additional effort you think it would take to reach the levels (guideline or reference levels) recommended by WHO across the EU - and elaborate what substantial barriers you would see to reaching these recommended levels in the text box below.

	Not feasible, for the foreseeable future	Feasible, but only with <u>significant</u> additional effort	Feasible, with <u>some</u> additional effort	Feasible, <u>without</u> additional effort	No opinion
PM2.5 (1 year averaging period; WHO recommendation of 5 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
PM2.5 (24 hours averaging period; WHO recommendation of 15 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
PM10 (1 year averaging period; WHO recommendation of 15 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
PM10 (24 hours averaging period; WHO recommendation of 45 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (peak season; WHO recommendation of 60 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (8 hours averaging period; WHO recommendation of 100 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
SO2 (24 hours averaging period; WHO recommendation of 40 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
SO2 (10 minutes averaging period; WHO recommendation of 500 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

NO2 (1 year averaging period; WHO recommendation of 10 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
NO2 (24 hours averaging period; WHO recommendation of 25 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
NO2 (1 hour averaging period; WHO recommendation of 200 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
CO (24 hours averaging period; WHO recommendation of 4 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
CO (8 hours averaging period; WHO recommendation of 10 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lead (1 year averaging period; WHO recommendation of 0.5 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene (1 year averaging period; WHO recommendation of 1.7 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arsenic (1 year averaging period; WHO recommendation of 6.6 µg/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cadmium (1 year averaging period; WHO recommendation of 5 ng/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nickel (1 year averaging period; WHO recommendation of 25 ng/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
BaP (1 year averaging period; WHO recommendation of 0.12 ng/m3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please elaborate your answer for each air pollutant where you have indicated either that it is not feasible to meet WHO recommendations at all, or where you see the need for significant additional efforts, to explain the barriers you see (i.e. what is the barrier, to what extent will this prevent achievement, are there any options to mitigate this challenge?):

Section 2.1: How to address air pollutants covered by the latest WHO Air Quality Guidelines? (i.e. PM2.5, PM10, O3, NO2, SO2, CO)

*** 2. I wish to reply to specific questions on ‘How to address air pollutants covered by the latest WHO Air Quality Guidelines?’**

- Yes
- No

The WHO set out guideline values – via [Air Quality Guidelines](#) – for a range of air pollutants [in 2000](#) and [in 2005](#) to advise on how to avoid the adverse health implications linked to air pollution. Some of these guideline values were recently updated in [September 2021](#) – notably for PM2.5, PM10, O3, SO2, NO2, and CO. In addition to guideline levels, the WHO has also outlined a series of less stringent interim targets for these air pollutants, which if met would already to lead to a significant decline in adverse health impacts of air pollution.

Pollutant	Averaging period	EU Ambient Air Quality Directives***		WHO 2021 guidelines levels*	WHO 2021 interim targets*
		Concentration	Permitted exceedances each year	Concentration	Concentration
Fine particulate matter (PM _{2.5}) [in µg/m ³]	1 year	25	-	5	35 / 25 / 15 / 10
	24 hours	-	-	15	75 / 50 / 37.5 / 25
Particulate matter (PM ₁₀) [in µg/m ³]	1 year	40	-	15	70 / 50 / 30 / 20
	24 hours	50	35 days	45	150 / 100 / 75 / 50
Ozone (O ₃) [in µg/m ³]	Peak season	-	-	60	100 / 70
	8 hour	120 (target value)	25 days avg. over 3 years	100	160 / 120
Sulphur dioxide (SO ₂) [in µg/m ³]	24 hours	125	3 days	40	125 / 50
	1 hour	350	24 hours	-	-
	10 minute	-	-	500	-
Nitrogen dioxide (NO ₂) [in µg/m ³]	1 year	40	-	10	40 / 30 / 20
	24 hour	-	-	25	120 / 50
	1 hour	200	18 hours	200	-
Carbon monoxide (CO) [in mg/m ³]	24 hour	-	-	4	7
	Max. daily 8 hour mean	10	-	10	-

Notes: * WHO (2021) WHO global air quality guidelines (note this does not include all WHO guidelines for all air pollutants or averaging periods); *** Given as ‘limit values’ expect where specified otherwise below

3. Do you (still) see a need for EU air quality standards to regulate:

(a) ANNUAL / SEASONAL average concentrations for the following air pollutants?

	Yes	No	No opinion
Fine particulate matter (PM2.5)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ozone (O3)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

(b) POLLUTION PEAK concentrations (daily or hourly air quality standards) for the following air pollutants?

	Yes	No	No opinion
Fine particulate matter (PM2.5)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Please indicate air quality standards which you believe would be appropriate for the EU in the SHORT TO MEDIUM TERM?

(a) What timeframe do you consider to be 'SHORT TO MEDIUM TERM'?

- 2025
- 2030
- 2035
- 2040
- 2045
- 2050
- Other

(b) Please indicate what you consider an appropriate standard in the SHORT TO MEDIUM TERM, (note: WHO guideline exposure levels are depicted in **bold** font, existing EU air quality standards are shown in blue text) for:

i. Fine particulate matter (PM2.5) [in µg/m³] – 1 year averaging period

- No standard
- No opinion
- 25
- 15
- 10
- 5
- <5

ii. Fine particulate matter (PM2.5) [in µg/m³] – 24 hour averaging period

- No standard

- No opinion
- 50
- 37.5
- 25
- 15**
- <15

iii. Particulate matter (PM10) [in $\mu\text{g}/\text{m}^3$] – 1 year averaging period

- No standard
- No opinion
- 40
- 30
- 20
- 15**
- <15

iv. Particulate matter (PM10) [in $\mu\text{g}/\text{m}^3$] – 24 hour averaging period

- No standard
- No opinion
- 50
- 45**
- <45

v. Ozone (O3) [in $\mu\text{g}/\text{m}^3$] – peak season

- No standard
- No opinion
- 100
- 70
- 60**
- <60

vi. Ozone (O3) [in $\mu\text{g}/\text{m}^3$] – 8 hour

- No standard
- No opinion
- 120
- 100**
- <100

vii. Sulphur dioxide (SO2) [in $\mu\text{g}/\text{m}^3$] - 24 hour averaging period

- No standard
- No opinion
- 125
- 50
- 40**
- <40

viii. Sulphur dioxide (SO₂) [in µg/m³] - 1 hour averaging period

- No standard**
- No opinion
- 350
- <350

ix. Sulphur dioxide (SO₂) [in µg/m³] – 10 minute averaging period

- No standard
- No opinion
- 500**
- <500

x. Nitrogen dioxide (NO₂) [in µg/m³] – 1 year averaging period

- No standard
- No opinion
- 40
- 30
- 20
- 10**
- <10

xi. Nitrogen dioxide (NO₂) [in µg/m³] - 24 hour averaging period

- No standard
- No opinion
- 120
- 50
- 25**
- <25

xii. Nitrogen dioxide (NO₂) [in µg/m³] - 1 hour averaging period

- No standard
- No opinion
- 200 (200)**
- 120
- 50
- <50

xiii. Carbon monoxide (CO) [in mg/m³] - 24 hour averaging period

- No standard
- No opinion
- 10
- 7
- 4**
- <4

xiv. Carbon monoxide (CO) [in mg/m³] - Max. daily 8 hour mean

- No standard
- No opinion
- 10 (10)**
- 7
- 4
- <4

xv. For any of the above pollutants, do you think that values other than those above should be considered?

The exemption of exceeding the PM10 daily limit value on 35 days/year should be abolished.

(c) Please indicate where your proposed standard should apply in the SHORT TO MEDIUM TERM:

[Note that 'all territory' refers to a standard that would need to be met throughout the territory or everywhere, 'background only' would need to be met only at urban background locations and exclude pollution hotspots, and 'at selected locations only' would need to be met only at locations specifically designated as specific air quality protection areas to protect sensitive populations.]

	All territory	Background only	At selected locations only
Fine particulate matter (PM2.5) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine particulate matter (PM2.5) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (peak season)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (8 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO ₂) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO ₂) (1 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO ₂) (10 minute averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO ₂) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO ₂) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO ₂) (1 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Carbon monoxide (CO) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (8 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please also see Q12 below to indicate the type of EU air quality standard you consider most appropriate.

5. Please indicate air quality standards which you believe would be appropriate for the EU in the LONGER TERM?

(a) What timeframe do you consider to be 'LONGER TERM'?

- 2025
- 2030
- 2035
- 2040
- 2045
- 2050
- Other

(b) Please indicate what you consider an appropriate standard in the LONGER TERM, (*note: WHO guideline exposure levels are depicted in **bold** font, existing EU air quality standards are shown in blue text*) for:

i. Fine particulate matter (PM2.5) [in $\mu\text{g}/\text{m}^3$] – 1 year averaging period

- No standard
- No opinion
- 25
- 15
- 10
- 5**
- <5

ii. Fine particulate matter (PM2.5) [in $\mu\text{g}/\text{m}^3$] – 24 hour averaging period

- No standard
- No opinion
- 50
- 37.5
- 25
- 15**
- <15

iii. Particulate matter (PM10) [in $\mu\text{g}/\text{m}^3$] – 1 year averaging period

- No standard
- No opinion
- 40
- 30

- 20
- 15
- <15

iv. Particulate matter (PM10) [in $\mu\text{g}/\text{m}^3$] – 24 hour averaging period

- No standard
- No opinion
- 50
- 45
- <45

v. Ozone (O3) [in $\mu\text{g}/\text{m}^3$] – peak season

- No standard
- No opinion
- 100
- 70
- 60
- <60

vi. Ozone (O3) [in $\mu\text{g}/\text{m}^3$] – 8 hour

- No standard
- No opinion
- 120
- 100
- <100

vii. Sulphur dioxide (SO2) [in $\mu\text{g}/\text{m}^3$] - 24 hour averaging period

- No standard
- No opinion
- 125
- 50
- 40
- <40

viii. Sulphur dioxide (SO2) [in $\mu\text{g}/\text{m}^3$] - 1 hour averaging period

- No standard
- No opinion
- 350
- <350

ix. Sulphur dioxide (SO2) [in $\mu\text{g}/\text{m}^3$] - 10 minute averaging period

- No standard
- No opinion
- 500
- <350

x. Nitrogen dioxide (NO₂) [in µg/m³] – 1 year averaging period

- No standard
- No opinion
- 40
- 30
- 20
- 10
- <10

xi. Nitrogen dioxide (NO₂) [in µg/m³] - 24 hour averaging period

- No Standard
- No Opinion
- 120
- 50
- 25
- <25

xii. Nitrogen dioxide (NO₂) [in µg/m³] - 1 hour averaging period

- No Standard
- No Opinion
- 200 (200)
- 120
- 50
- <50

xiii. Carbon monoxide (CO) [in mg/m³] - 24 hour averaging period

- No Standard
- No opinion
- 10
- 7
- 4
- <4

xiv. Carbon monoxide (CO) [in mg/m³] - Max. daily 8 hour mean

- No standard
- No opinion
- 10 (10)
- 7
- 4
- <4

xv. For any of the above pollutants, do you think that values other than those above should be considered?

There should be no more exemption for the PM₁₀ daily standard. The number of tolerated exceedances for the hourly standard for PM_{2.5}, for PM₁₀ and for NO₂ should not exceed 3 days per year.

(c) Please indicate where your proposed standard should apply in the LONGER TERM:

[Note that ‘all territory’ refers to a standard that would need to be met throughout the territory or everywhere, ‘background only’ would need to be met only at urban background locations and exclude pollution hotspots, and ‘at selected locations only’ would need to be met only at locations specifically designated as specific air quality protection areas to protect sensitive populations.]

	All territory	Background only	At selected locations only
Fine particulate matter (PM2.5) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine particulate matter (PM2.5) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (peak season)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (8 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (1 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (10 minute averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (24 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (8 hour averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please also see Q13 below to indicate the type of EU air quality standard you consider most appropriate.

[Section 2.2: How to address air pollutants covered by earlier editions of the WHO Air Quality Guidelines only? \(i.e. arsenic, cadmium, nickel, lead, benzene, polycyclic aromatic hydrocarbons\)](#)

*** 6. I wish to reply to specific questions on ‘How to address air pollutants covered by earlier editions of the WHO Air Quality Guidelines only?’**

- Yes
 No

For several air pollutant objective averaging periods, EU air quality standards have been defined and WHO reference values exist, but were not updated by the WHO in 2021: Lead; Benzene; Arsenic; Cadmium; Nickel and PAH (all averaged over 1 year). In some cases, the current EU air quality standard is consistent with the WHO reference values from 2005, in others the levels are set above the WHO reference values.

Pollutant	Averaging period	EU Ambient Air Quality Directives***		WHO 2000/2005 Guideline levels*	WHO 2000/2005 Reference levels*
		Concentration	Type of standard	Concentration	Concentration
Lead (Pb) [in µg/m ³]	1 year	0.5	Limit value	0.5	-
Benzene (C ₆ H ₆) [in µg/m ³]	1 year	5	Limit value	1.7	-
Arsenic (As) [in ng/m ³]	1 year	6	Target value	-	6.6
Cadmium (Cd) [in ng/m ³]	1 year	5	Target value	-	5
Nickel (Ni) [in µg/m ³]	1 year	20	Target value	-	25
Polycyclic Aromatic Hydrocarbons (expressed as Benzo(a)pyrene) [in ng/m ³]	1 year	1	Target value	0.12	-

Notes: * WHO (2000) or WHO (2005) WHO global air quality guidelines; ** Unless specified otherwise below

7. Please indicate:

(a) air quality standards which you believe would be appropriate for the EU (*note: WHO guideline or reference levels; **guideline levels** or **1/100.000** risk levels are presented in bold font; 1/1.000.000 risk levels are depicted in italic font; existing EC standards are shown in blue font*) for:

i. Lead (Pb) [in µg/m³] – 1 year averaging period

- No standard
 No opinion
 0.5 (0.5)
 0.25
 0.15
 0.05

ii. Benzene (C₆H₆) [in µg/m³] – 1 year averaging period

- No standard
 No opinion
 5
 3.4
 1.7
 0.17

iii. Arsenic (As) [in ng/m³] – 1 year averaging period

- No standard

- No opinion
- 6.6 (6)**
- 4
- 2
- 0.66

iv. Cadmium (Cd) [in ng/m³] – 1 year averaging period

- No standard
- No opinion
- 5 (5)**
- 2.5
- 1.5
- 0.5

v. Nickel (Ni) [in µg/m³] – 1 year averaging period

- No standard
- No opinion
- 25**
- 20**
- 10
- 2.5

vi. Benzo(a)pyrene [in ng/m³] – 1 year averaging period

- No standard
- No opinion
- 1**
- 0.5
- 0.12**
- 0.012

vii. For any of the above pollutants, do you think that values other than those above should be considered?

Limits for pollutants currently covered by the AAQD but that are not included in the WHO's revised guidelines need to be updated as well in line with the latest available science by 2030. They need to become limit values, e.g. in the case of BaP.

(b) where your proposed standard should apply:

[Note that 'all territory' refers to a standard that would need to be met throughout the territory or everywhere, 'background only' would need to be met only at urban background locations and exclude pollution hotspots, and 'at selected locations only' would need to be met only at locations specifically designated as specific air quality protection areas to protect sensitive populations.]

	All territory	Background only	At selected locations only

Lead (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arsenic (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cadmium (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nickel (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzo(a)pyrene (BaP) (1 year averaging period)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please also see Q15 below to indicate the type of EU air quality standard you consider most appropriate.

Section 2.3: How to address air pollutants for which there are no WHO guideline levels or reference levels? (i.e. black carbon, ultrafine particles, ammonia, others)

*** 8. I wish to reply to specific questions on ‘How to address air pollutants for which there are no WHO guideline levels or reference levels?’**

- Yes
- No

There is a broader range of air pollutants for which there is an emerging body of evidence of health and/or environmental effects, for which no current quantitative target is included in the WHO guidance nor EU air quality standards. These are commonly referred to as ‘emerging air pollutants’, and include ammonia, black carbon, ultra-fine particulates, etc. For these air pollutants the WHO has not identified guideline exposure or reference levels.

9. Do you see sufficient evidence for, and a need for, EU air quality standards to regulate:

(a) ANNUAL / SEASONAL average concentrations for the following ‘emerging air pollutants’?

	Yes	Not yet	No	No opinion
Ammonia (NH3)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black carbon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ultra-fine particles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other air pollutants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If added ‘Yes’ above, please specify:

WHO 2021 qualitative good practice recommendations for black carbon and ultrafine particles; NH3 important PM precursor. By "other", we mean mercury here.

(b) POLLUTION PEAK concentrations (daily or hourly air quality standards) for the following ‘emerging air pollutants’?

--	--	--	--

	Yes	Not yet	No	No opinion
Ammonia (NH ₃)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black carbon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ultra-fine particles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other air pollutants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If added 'Yes' above, please specify:

WHO 2021 qualitative good practice recommendations for black carbon and ultrafine particles

10. Please elaborate (i.e. if supportive: for which pollutants, how would these targets be set, at what level, over what timeframe; if not supportive, why not? Should alternative action be taken? Are there actions that should be put in place that would facilitate quantitative targets in the longer term)?

Section 2.4: What type of EU air quality standards should apply for different pollutants? (i.e. limit values, target values, long-term objective, average exposure levels, alert thresholds, other)

*** 11. I wish to reply to specific questions on 'What type of EU air quality standards should apply for different pollutants?'**

- Yes
 No

Different types of EU air quality standards are available in the existing legislative framework – namely:

- **LV limit value** – i.e. 'to be attained within a given period and not to be exceeded once attained';
- **TV target value** – i.e. 'to be attained where possible over a given period';
- **LTO long-term objective** – i.e. 'to be attained in the long term, save where not achievable through proportionate measures';
- **ECO exposure concentration obligation** – i.e. 'based an average level determined on the basis of measurements at urban background locations, reflects population exposure – and to be attained over a given period';
- **(N)ERT (national) exposure reduction target** – i.e. 'a percentage reduction of the average exposure to be attained where possible over a given period'.

For simplicity, these standards are here grouped below into those that relate levels not to be exceeded at **individual sampling points** (LV, TV, LTO) and those that relate to the calculation of **average exposure indicators** (ECO, (N)ERT).

In addition, the Ambient Air Quality Directives define critical levels and alert/information thresholds:

- **Alert threshold** – i.e. ‘a level at which immediate steps are to be taken by the Member States’;
- **Information threshold** – i.e. ‘a level beyond which immediate and appropriate information is necessary’;

[Please see Directives 2008/50/EC and 2004/107/EC for the full definition of the above type of standards.]

12. Please indicate what type of air quality standards you believe would be appropriate for the EU in the SHORT TO MEDIUM TERM?

(a) Based on levels not to be exceeded at **individual sampling points** (if appropriate, based on your above replies to Question 4)

	No standard	Limit value	Target value	Long-term objective	No opinion
Fine particulate matter (PM2.5) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine particulate matter (PM2.5) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (peak season)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (8 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (1 hour averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (10 minutes averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 hour averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (8 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(b) Based on the calculation of an **average exposure indicator** (national or regional)

	ECO at national level	ECO at a more regional level	(N) ERT	No opinion
Fine particulate matter (PM2.5) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Particulate matter (PM10) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ozone (O3) (peak season)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrogen dioxide (NO2) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(c) Where in question 12(b) you have indicated that an average exposure indicator is preferred, what considerations should be taken into account when defining the level of such indicators, and how ambitious should they be?

	Comment
Fine particulate matter (PM2.5) (1 year averaging period)	
Particulate matter (PM10) (1 year averaging period)	
Ozone (O3) (peak season)	
Nitrogen dioxide (NO2) (1 year averaging period)	

13. Please indicate what type of air quality standards you believe would be appropriate for the EU in the LONGER TERM?

(a) Based on levels not to be exceeded at **individual sampling points** (if appropriate, based on your above replies to Question 5)

	No standard	Limit value	Target value	Long-term objective	No opinion
Fine particulate matter (PM2.5) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine particulate matter (PM2.5) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter (PM10) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (peak season)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (8 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (1 hour averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sulphur dioxide (SO2) (10 minutes averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen dioxide (NO2) (1 hour averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (24 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon monoxide (CO) (8 hours averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(b) Based on the calculation of an **average exposure indicator** (national or regional)

	ECO at national level	ECO at a more regional level	(N) ERT	No opinion
Fine particulate matter (PM2.5) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Particulate matter (PM10) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ozone (O3) (peak season)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrogen dioxide (NO2) (1 year averaging period)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(c) Where in question 13(b) you have indicated that an average exposure indicator is preferred, what considerations should be taken into account when defining the level of such indicators, and how ambitious should they be?

	Comment
Fine particulate matter (PM2.5) (1 year averaging period)	
Particulate matter (PM10) (1 year averaging period)	
Ozone (O3) (peak season)	
Nitrogen dioxide (NO2) (1 year averaging period)	

14. Would the introduction of an additional Average Exposure Indicator (and related obligations at national or regional level) increase:

(a) The costs of achieving compliance with the Directives? *(Note that for fine particulate matter (PM2.5) these metrics already exist)*

	High compliance costs	Low compliance costs	No additional compliance costs	No opinion
PM10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NO2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If so, please elaborate: what costs, for whom, and how significant would these be? Where available, please provide any data or quantitative information which could help inform the quantification of an additional cost of these measures.

(b) The administrative burden of achieving compliance with the Directives? *(Note that for fine particulate matter (PM2.5) these metrics already exist)*

	High administrative burden	Low administrative burden	No additional administrative burden	No opinion
PM10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NO2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If so, please elaborate: what costs, for whom, and how significant would these be? Where available, please provide any data or quantitative information which could help inform the quantification of an additional cost of these measures.

15. Please indicate what type of air quality standards you believe would be appropriate for the EU, based on levels not to be exceeded at individual sampling points?

	No standard	Limit value	Target value	Long-term objective	No opinion
Lead (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene (1 year averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Arsenic (1 year averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cadmium (1 year averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nickel (1 year averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzo(a)pyrene (BaP) (1 year averaging period)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. For several air pollutant objective averaging periods, WHO guidelines exist but specific EU air quality standards do not: PM2.5 (24 hour); SO2 (10 minute); NO2 (24 hour); CO (24 hour); and Ozone (peak season). Would the introduction of additional air pollutant objective averaging periods increase:

(a) The costs of achieving compliance with the Directives?

	High compliance costs	Low compliance costs	No additional compliance costs	No opinion
PM2.5 (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SO2 (10 minute averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NO2 (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CO (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (peak season)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If so, please elaborate: what type of costs, for whom, and how significant would these be? Where available, please provide any data or quantitative information which could help inform the quantification of an additional cost of these measures.

(b) The administrative burden of achieving compliance with the Directives?

	High administrative burden	Low administrative burden	No additional administrative burden	No opinion
PM2.5 (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SO2 (10 minute averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NO2 (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CO (24 hour averaging period)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ozone (O3) (peak season)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If so, please elaborate: what type of costs, for whom, and how significant would these be? Where available, please provide any data or quantitative information which could help inform the quantification of an additional cost of these measures.

17. Are there pollutants, or averaging pollutants, currently subject to an EU air quality standard that in your view no longer are meaningful, and can be abolished to save administrative costs?

- Yes
- No

Please explain:

Section 2.5: What are likely costs of and expected benefits from setting revised EU air quality standards? (i.e. societal cost, societal benefits, implementation and administrative costs, implementation barriers)

*** 18. I wish to reply to specific questions on ‘What are likely costs of and expected benefits from setting revised EU air quality standards?’**

- Yes
- No

19. How would different groups in society benefit from achieving stricter EU air quality standards?

Rate from 1 (These groups would benefit proportionately less than the average), to 3 (Groups would benefit in a similar way as the average), to 5 (These groups would benefit proportionately more than the average)

	1	2	3	4	5	No opinion
All citizens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Citizens living in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Citizens living in rural areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those with pre-existing medical conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Elderly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower socio-economic status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower educational attainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unemployed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other, please specify:

What is the definition of "average"? Air pollution affects each individual and the level of vulnerability of each individual can evolve in the course of their lives, so each individual will benefit from stricter air quality standards over the course of their lives.

20. How would different groups in society carry the costs for achieving stricter EU air quality standards?

Rate from 1 (These groups would face disproportionately higher costs less than the average), to 3 (Groups would face costs in a similar way as the average), to 5 (Groups face disproportionately lower costs than the average)

	1	2	3	4	5	No opinion
All citizens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Citizens living in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Citizens living in rural areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those with pre-existing medical conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Elderly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower socio-economic status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower educational attainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unemployed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other, please specify:

The polluter pays principle should be urgently and finally applied to its full extent. The level of divestment from polluting activities needed to urgently achieve stricter EU air quality standards tremendously depends on the magnitude and speed of implementation action decided by each Member State, the concept of financial "costs" is therefore inappropriate here and any delay in acting firmly to halt air pollution can only add to the total health costs, which is counted in premature deaths and burden of disease and is already outrageously unacceptably high.

21. How would different economic actors benefit from achieving stricter EU air quality standards?

Rate from 1 (Economic actors would benefit proportionately less than the average), to 3 (Economic actors would benefit in a similar way as the average), to 5 (Economic actors would benefit proportionately more than the average)

	1	2	3	4	5	No opinion
Transport sector in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal mobility providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logistic transport service providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manufacturing industry (incl. vehicles)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy providers (combustion based)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy providers (non combustion based)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waste sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mining and quarrying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Healthcare sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SMEs (all sectors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative industries (all sectors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other, please specify:

Because air pollution affects everyone, achieving better air quality standards will by definition benefit all sectors, provided that they don't count health-harming activities as a benefit.

22. How would different economic actors carry the costs for achieving stricter EU air quality standards?

Rate from 1 (Economic actors would face disproportionately higher costs less than the average), to 3 (Economic actors would face costs in a similar way as the average), to 5 (Economic actors face disproportionately lower costs than the average)

	1	2	3	4	5	No opinion
Transport sector in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal mobility providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logistic transport service providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Manufacturing industry (incl. vehicles)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy providers (combustion based)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy providers (non combustion based)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waste sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mining and quarrying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Healthcare sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SMEs (all sectors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative industries (all sectors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. One of the critical costs associated with changing air quality standards will be the need for additional measures and/or additional air quality plans.

Do you have any evidence regarding the implementation costs and/or administrative burdens associated with developing and implementing air quality plans? This can concern burden to your or other organisations of the design, implementation and ongoing costs of the plans (but excluding any technology costs associated with pollutant mitigation techniques that arise in response to the actions contained in plans). Where possible, please provide detail on: what activities costs are associated with, whether costs are upfront or ongoing, who the costs fall on, and where possible estimates of costs in EUR or person time (all evidence is useful, even where partial).

Every euro put into cutting the largest health threat from environmental pollution in the EU is an investment in health-costs savings - not a cost - provided that a health impact assessment of measures envisaged has been performed so as to avoid regrettable technological or industrial lock-ins.

24. Where air quality standards are changed (and made stricter), this will could change the number of plans that need to be made in response. Could this also impact on the administrative burden of developing individual air quality plans? If so, please explain why and how this would influence these burdens.

Consideration on the administrative burden should not influence the level of ambition chosen for the standards. Health protection needs to be the priority goal which determines the ambition.

25. Would achieving stricter EU air quality standards have a positive or negative impact on other policy areas (either directly or indirectly)?

Rate from 1 (Significant negative impact), 2 (minor negative impact), 3 (neutral or no-significant impact), 4 (minor positive impact), to 5 (Significant positive impact)

	1	2	3	4	5	No opinion
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Climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Productivity and output of EU businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
EU Competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
EU SMEs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
EU Employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Indoor air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Noise pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Pollution of water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Pollution of soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

If other, please specify:

Public health

Section 2.6: Concluding questions

26. Do you have any other comments regarding Policy Area 1? Please also upload any supporting evidence or material you feel is pertinent to the discussion of issues and impacts in this area:

As stated by Dr. Tedros as head of the WHO during the Clean Air Forum held in Madrid in November 2021: "no one should die from breathing".

Please upload your file(s) here:

Contact

[Contact Form](#)

Air quality - revision of EU rules: Targeted survey questionnaire (Part 2 of 2)

Fields marked with * are mandatory.

Air quality - revision of EU rules Targeted survey questionnaire – Part 2 of 2

Background

Clean air is essential for our health and that of the environment. The [Ambient Air Quality Directives](#) set air quality standards to avoid the build-up of excessive air pollutant concentrations. The Directives also define common methods to monitor, assess and inform regarding ambient air quality in the European Union. Furthermore, the Directives require action, when standards are exceeded, in order to avoid, prevent or reduce harmful effects on human health and the environment as a whole.

As part of the [European Green Deal](#), the EU is revising these air quality standards, to align them more closely with the recommendations of the World Health Organization (see overview of EU standards [here](#)). It also aims to improve the overall EU legislation for clean air, including revising provisions on penalties in case of exceedances, requirements for public information, as well as propose means to strengthen air quality monitoring, modelling and plans to help local authorities achieve cleaner air.

The targeted survey in the context of the Impact Assessment

The Commission has launched an [impact assessment](#) to support the Ambient Air Quality Directives revision. In line with the Commission's [Better Regulation](#) agenda, this targeted stakeholder questionnaire will inform the revision process, and the views collected will be considered in the impact assessment, especially when designing potential (regulatory and non-regulatory) measures to reduce air pollution, strengthen air quality monitoring, modelling and plans, and reduce the related impacts on environment and society.

Why are we consulting you?

In contrast to the open public consultation which included rather general questions, in this survey we are seeking expert input on technical aspects of the revision. In this survey we target policymakers, civil servants, experts, practitioners and civil society organisations to seek their views on how specific provisions in the current air quality rules could be revised.

Structure of the survey

The survey is divided in several parts:

Part 1: Respondent identification – questions regarding stakeholder identification

Part 2: Questions on Policy Area 2 - Improving the current air quality legislative framework, including provisions on penalties and public information

Part 3: Questions on Policy Area 3 - Strengthening of air quality monitoring, modelling and plans

Please note that this survey is a follow up to Part 1 (which contained questions on Policy Area 1 (Closer alignment of the EU air quality standards with the latest recommendations of the World Health Organization) and was launched in December 2021. This second part of the survey addresses questions on Policy Areas 2 and 3 (Improving the current air quality legislative framework, including provisions on penalties and public information and Strengthening of air quality monitoring, modelling and plans).

We estimate that replying to all questions would take about 25-35 minutes. Please note that not all questions have to be answered. You are invited to respond to the best of your abilities or knowledge of the topic. At the end of the questionnaire, there is also an option to upload additional documents, may you deem it relevant.

Thank you for your cooperation. Your input is extremely valuable in supporting the revision of the Ambient Air Quality Directives.

Section 1: About you - respondent identification

* a) In what capacity are you completing this questionnaire?

- Academic/research institution
- Business association
- Company/business organisation
- Environmental organisation
- Non-governmental organisation (NGO)
- Trade Union
- National public authority
- Regional public authority
- Local public authority
- EU institution or body
- International institution or body
- Other

* b) First name

100 character(s) maximum

Sophie

* c) Surname

100 character(s) maximum

Perroud

* d) Email address (will not be published)

sophie@env-health.org

e) Organisation name

100 character(s) maximum

Health and Environment Alliance (HEAL)

f) Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

g) Organisation scope

- International
- National
- Regional
- Local

h) Transparency Register number

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

255 character(s) maximum

00723343929-96

* i) Country of origin

Please add your country of origin, or that of your organisation if you are responding on behalf of your organisation

BE - Belgium

* j) Please indicate the sector(s) you are active in

at most 3 choice(s)

- air quality management
- air quality monitoring
- agriculture / food
- biodiversity and/or environment
- energy
- government
- health care
- investment and finance
- manufacturing
- public health
- raw materials extraction / primary processing
- scientific research
- transport
- none of the above sectors

- other
 I do not know, or I do not want to answer

* k) Publication privacy settings

The Commission may publish the responses to this consultation. You can choose whether you would like your details to be made public or to remain anonymous by clicking the relevant box.

- Anonymous:** Only your type of respondent, country of origin and contribution will be published. All other personal details (name, organisation name and size, transparency register number) will not be published.
- Public:** Your personal details (name, organisation name and size, transparency register number, country of origin) will be published with your contribution.

I agree with the [personal data protection provisions](#)

* i) Would you be interested in participating in follow-up consultation activities in relation to 'Air quality - revision of EU rules' (i.e. interviews and/or focus groups)?

- Yes
 No

Policy area 2: Improving the current air quality legislative framework, including provisions on penalties and public information

Besides air quality standards, the Ambient Air Quality Directives include provisions designed to ensure proper implementation and enforcement of the measures needed to achieve the set objectives. Under the current Directives, air quality objectives have not been reached everywhere in the EU – which point to a need to reinforce the legislative framework. Policy area 2 thus relates to “improving the air quality legislative framework, including provisions on penalties and public information, to enhance effectiveness, efficiency and coherence”. Policy options under this policy area aim to improve the air quality legislative framework, including interventions addressing shortcomings already identified elsewhere, namely shortcomings regarding health outcome, air quality information, enforcement and governance.

The questions under Policy area 2 cover:

- **Intervention area A: How to ensure the timely adjustment of EU air quality standards to evolving scientific or technological knowledge?** (i.e. what should be the mechanism to trigger a future revision of the air quality standards)
- **Intervention area B: Which types of air quality standards or combination thereof are appropriate?** (i.e. appropriateness of using limit or target values, exposure-based standards, long-term and short-term objectives etc. for different air pollutants);
- **Intervention area C: What action should be mandated in case air quality standards are not respected** (i.e. rules on when air quality plans and other measures must be taken and what those other measures could comprise);
- **Intervention area D: Who should be involved in the preparation of air quality plans, and how should their preparation and implementation be coordinated?** (i.e. how air quality plans are developed and with the involvement of which governance structures);

- **Intervention area M: How to assess and address transboundary air pollution in local/regional air quality management? (**)**
e. how to improve transboundary cooperation on local and/or regional air quality management
- **Intervention area E: What legal tools should be available to address breaches of the obligations?** (i.e. penalties, compensation for damages and access to justice); and
- **Intervention area F: How to best inform the public on air quality?** (i.e. what information must be shared with the public and how)

*(**) [Note that 'Intervention area M: How to assess and address transboundary air pollution in local/regional air quality management?' relates to both policy areas 2 and 3, but is included under policy area 2 only.]*

2.1 Intervention area A: How to ensure the timely adjustment of EU air quality standards to evolving scientific and technical knowledge?

Shortcomings identified in relation to intervention area A:

Health challenges caused by air quality persist in the EU. An apparent shortcoming of the current legislation is that there is no explicit mechanism in the legislation to ensure that the air quality standards are adapted in a timely manner in accordance with evolving technologies and science, in particular scientific evidence on how air pollution affects health and the environment.

[Note that this primarily relates to health outcome shortcomings identified in the evaluation of the AAQ Directives.]

* 1. I wish to reply to questions on intervention area A:

- Yes
 No

2. How do you see the above shortcomings developing without changes to the Ambient Air Quality Directives?

Without an automatic update and review of the legislation, new science on health effects of (emerging) air pollutants will pile up and will not be reflected in the legislation, which de facto will prevent it from being science based, thus preventing it from effectively preventing health harm.

In order to address the above identified shortcomings, we ask your views on the following potential interventions:

- (A1) Introduce a mechanism for adjusting EU air quality standards upon publication of new scientific advice (including, but not limited to, the publication of new WHO guidelines).
- (A2) Introduce a mechanism for adjusting EU air quality standards based on technical progress in air pollution reduction.
- (A3) Introduce a provision for EU Member States to adopt more stringent standards in light of the new technical and scientific progress coupled with an obligation to notify the European Commission.
- (A4) Keep and periodically update a list of priority air pollutants to ensure air pollutants of emerging concern are monitored.

3. Intervention A1: Introduce a mechanism for adjusting EU air quality standards upon publication of new scientific advice (including, but not limited to, the publication of new WHO guidelines).

a. i. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

ii. To which extent would the below specific interventions address the **above identified shortcomings?**

1. Introduce a binding **schedule of reviews of technical and scientific progress** to be undertaken by the European Commission

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

2. Introduce a mechanism for adjusting air quality standards **upon publication of new WHO guidelines**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

3. Introduce a mechanism for adjusting air quality standards **based on (other) latest scientific advice**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Modern policy making has to become agile in the way it is taking up scientific evidence. For example, a yearly review by the EEA of the most recent published scientific literature should enable the Commission to decide, based on pre-determined criteria spelled out in the legislation, whether the new available data is or is not triggering an amendment to the standards, for example through a delegated act. Intervention A1 is an absolute must.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

4. Intervention A2: Introduce a mechanism for adjusting EU air quality standards based on technical progress in air pollution reduction.

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

5. Intervention A3: Introduce a provision for EU Member States to adopt more stringent standards in light of new technical and scientific progress coupled with an obligation to notify the European Commission.

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Tackling air pollution should be dealt with at the EU level, with the same and highest level of ambition to effectively protect the health of every person breathing in the EU, all across the EU, all united in diversity.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

6. Intervention A4: Keep and periodically update a list of priority air pollutants to ensure air pollutants of emerging concern are monitored.

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Monitoring air pollutants of emerging concern is a crucial complementary measure to intervention A1, provided that, based on the precautionary principle, this first step swiftly triggers binding proper preventive action at source in order to effectively protect health.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

7. Do you have any other suggestions **for intervention area A**, i.e. for interventions to ensure the timely adjustment of EU air quality standards to evolving scientific or technological knowledge? In case of possible combinations of interventions, what considerations should be taken into account?

Intervention A1 is an absolute must, intervention A4 is a crucial addition to it.

2.2 Intervention area B: Which types of air quality standards or combination thereof are appropriate?

Shortcomings identified in relation to intervention area B:

Health challenges caused by air quality persist in the EU. Different types of EU air quality standards have different effects on reducing exposure to harmful levels of air pollutants. This intervention area looks at what different types of air quality standards should trigger what kind of action.

Different types of EU air quality standards are available in the existing legislative framework – namely:

- LV Limit value – i.e. ‘to be attained within a given period and not to be exceeded once attained’;
- TV Target value – i.e. ‘to be attained where possible over a given period’;
- LTO Long-term objective – i.e. ‘to be attained in the long term, save where not achievable through proportionate measures’;
- ECO Exposure concentration obligation – i.e. ‘on the basis of measurements at urban background locations which reflect population exposure – and to be attained over a given period’;
- (N)ERT (National) exposure reduction target – i.e. ‘a percentage reduction of the average exposure to be attained where possible over a given period’.

In addition, the Ambient Air Quality Directives define critical levels and alert/information thresholds:

- Alert threshold – i.e. ‘a level at which immediate steps are to be taken by the Member States’;
- Information threshold – i.e. ‘a level beyond which immediate and appropriate information is necessary’;

Please see Directives 2008/50/EC and 2004/107/EC for the full definitions of the above types of standards.

[Note that this primarily relates to implementation shortcomings identified in the evaluation of the AAQ Directives.]

* 8. I wish to reply to questions on intervention area B:

- Yes
 No

9. How do you see the above shortcomings developing without changes to the Ambient Air Quality Directives?

Legally binding limit values, applicable all across the EU at all times, are the most protective measure for health.

In order to address the above identified shortcomings, we ask your views on the following potential interventions:

- (B1) Establish short-term EU air quality standards (daily or hourly) for additional air pollutants that currently only have annual or seasonal standards e.g. PM2.5.
- (B2) Define alert thresholds and information thresholds for all air pollutants as triggers for alerting the public and taking short-term action.
- (B3) Expand the application of the exposure reduction targets (i.e. specific air quality standards to achieve a relative reduction in exposure).
- (B4) Provide guidance on the provisions concerning types of EU air quality standards and on the action to be taken in case of exceedance of different types of standards.
- (B5) Establish limit values for additional air pollutants (i.e. for air pollutants currently subject to target values).

10. Intervention B1: Establish short-term EU air quality standards (daily or hourly) for additional air pollutants that currently only have annual or seasonal standards e.g. PM2.5

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

The current legislation does not provide any short-term limit value for PM 2.5, one of the most harmful air pollutants to health, despite the fact that the WHO provided for such a guideline already in its previous edition. Such a loophole urgently needs to be closed.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

11. Intervention B2: Define alert thresholds and information thresholds for all air pollutants as triggers for alerting the public and taking short-term action

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Alert thresholds are an essential tool to protect people, especially vulnerable groups, during high pollution events. As such, there is a need for alert thresholds and effective short-term action plans for all main pollutants. The European Commission should take steps to standardise the system for air pollution alerts across the EU, especially for particulate matter (PM). It should introduce the obligation to adopt short-term action plans to tackle high PM pollution events. Information should also be tailored to specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU,

national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

12. Intervention B3: Expand the application of the exposure reduction targets (i.e. specific air quality standards to achieve a relative reduction in exposure).

a. i. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

ii. To which extent would the below specific interventions address the **above identified shortcomings?**

1. Introduce an exposure reduction target applicable at **regional or local level**.

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

2. Broaden the “average exposure indicator” metric to include locations **other than urban background** (for instance rural background locations as well).

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

3. Establish requirements for Member States to adopt **air quality plans** to achieve compliance with exposure concentration obligations.

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

13. Intervention B4: Provide guidance on the provisions concerning types of EU air quality standards and on the action to be taken in case of exceedance of different types of standards.

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

14. Intervention B5: Establish limit values for additional air pollutants (i.e. for air pollutants currently subject to target values)

a. i. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

ii. To which extent would the below specific interventions address the **above identified shortcomings?**

1. Establish limit values also for air pollutants that tend to depend on **transboundary precursors** and /or annual variations in meteorology (e.g. as is the case for ozone).

- Not at all
- To some extent

- To a large extent
- Fully
- No opinion

2. Establish limit values also for air pollutants that tend to correspond to **specific point source** emissions (e.g. as is the case for most heavy metals).

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

3. Establish limit values also for air pollutants that tend to correspond to emissions from **specific widespread practices** (e.g. as is the case for most poly-aromatic hydrocarbons).

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

There is no safe level of air pollution, everyone is affected and the emission of every air pollutant must be cut at each and every source. The formation of ozone is heavily dependent of the emission of NO₂, therefore setting a binding limit value can only support action in favor of cutting NO₂ emission everywhere in the EU.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

15. Do you have any other suggestions **for intervention area B**, i.e. for interventions regarding types of EU air quality standards? In case of possible combinations of interventions, what considerations should be taken into account?

The most effective standards pushing the air pollution levels down are legally binding limit values. Therefore, any other type of standard should only come in addition to limit values.

2.3 Intervention area C: What action should be mandated in case air quality standards are not respected?

Shortcomings identified in relation to intervention area C:

There are still exceedances above the current EU air quality standards. This points to shortcomings in the actions mandated to address those exceedances.

[Note that this primarily relates to implementation shortcomings identified in the evaluation of the AAQ Directives.]

* 16. I wish to reply to questions on intervention area C:

- Yes
 No

2.4 Intervention area D: Who should be involved in the preparation of air quality plans, and how should their preparation and implementation be coordinated?

Shortcomings identified in relation to intervention area D:

There are ongoing exceedances of EU standards. It appears that air quality plans and the measures adopted as part of these plans do not always effectively address the exceedance. For example, establishing air quality plans does not always include the participation of competent authorities responsible for emission sources (this is a problem where local air quality is impacted by emissions outside the air quality zone). In addition, the measures are not always accepted by their addressees and are seen as disproportionate to the exceedance.

[Note that this primarily relates to implementation shortcomings and governance shortcomings identified in the evaluation of the AAQ Directives.]

* 24. I wish to reply to questions on intervention area D:

- Yes
 No

2.5 Intervention area M: How to assess and address transboundary air pollution in local /regional air quality management?

Shortcomings identified in relation to intervention area M:

The AAQ Directives include only a limited mandate for action concerning local/regional air quality problems caused by cross-border air pollution and/or transboundary air pollutant precursors. Air quality plans do not always address all sources effectively: local air quality can be impacted by emissions outside local control – this requires reliable assessments of transboundary contributions. Progress in monitoring over the past decade has also improved air quality data on transboundary contributions to exceedance situations, resulting in potential for more coordinated action.

[Note that this primarily relates to governance shortcomings and assessment shortcomings identified in the evaluation of the AAQ Directives.]

[Also note that 'Intervention area M: How to assess and address transboundary air pollution in local

/regional air quality management?' relates to both policy areas 2 and 3, but is included under policy area 2 only.]

* 29. I wish to reply to questions on intervention area M:

- Yes
- No

30. How do you see the above shortcomings developing without changes to the Ambient Air Quality Directives?

In order to address the above identified shortcomings, we ask your views on the following potential interventions:

- (M1) Require the use of an agreed methodology when assessing transboundary air pollution /contributions to local/regional air pollution.
- (M2) Require transboundary cooperation and joint action on air quality if assessments of transboundary air pollution/contributions above certain thresholds (to be defined)

31. **Intervention M1: Require the use of an agreed methodology when assessing transboundary air pollution/contributions to local/regional air pollution.**

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Consistent and reliable air quality information across the EU legal requirements for monitoring networks are essential to make sure that everyone in the EU has access to timely and reliable information about air quality. Fixed sampling points for measuring pollutants are a key tool to ensure monitoring is done adequately and consistently across the EU and their number should increase. Citizens also have a growing role to play in assessing air quality in their cities, with various citizen science projects.

The European Commission should provide clearer guidance to national authorities on the location and number of sampling points. Moreover, the European Commission should monitor Member States compliance with the legal requirements for location of sampling points. When appropriate, the European Commission should start infringement proceedings. The guidance should describe the uncertainties when using different sensors and describe best practices for performing measurements and validating results. Within the EU Pre-Accession process, such guidance should also be given to the public authorities of the countries concerned, including at the local level, in the course of their process of aligning national air quality standards with the EU framework.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

32. Intervention M2: Require transboundary cooperation and joint action on air quality if assessments of transboundary air pollution/contributions above certain thresholds (to be defined)

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

33. Do you have any other suggestions for **intervention area M**, i.e. for interventions regarding transboundary air pollution in local/regional air quality management? In case of possible combinations of interventions, what considerations should be taken into account?

2.6 Intervention area E: What legal tools should be available to address breaches of the obligations?

Shortcomings identified in relation to intervention area E:

The current Ambient Air Quality Directives require Member States to apply effective, proportionate and dissuasive penalties in case of infringements of the obligations from the Directives. As there are still ongoing exceedances of EU air quality standards, this indicates that the current legal tools to address breaches of obligations are insufficient.

[Note that this primarily relates to governance shortcomings and implementation shortcomings identified in the evaluation of the AAQ Directives.]

* 34. I wish to reply to questions on intervention area E:

- Yes
 No

2.7 Intervention area F: How to best inform the public on air quality?

Shortcomings identified in relation to intervention area F:

Despite public interest, a growing body of evidence and rapidly evolving communication technology, information on air quality, associated health impacts and measures to address exceedances is not always readily available to the public or in an accessible format.

[Note that this primarily relates to information shortcomings identified in the evaluation of the AAQ Directives.]

* 41. I wish to reply to questions on intervention area F:

- Yes
 No

42. How do you see the above shortcomings developing without changes to the Ambient Air Quality Directives?

Gaps in air quality information exist, especially for vulnerable groups. Alert thresholds are an essential tool to protect people, especially vulnerable groups, during high pollution events. As such, there is a need for alert thresholds and effective short-term action plans for all main pollutants. The European Commission should take steps to standardise the system for air pollution alerts across the EU, especially for particulate matter (PM). It should introduce the obligation to adopt short-term action plans to tackle high PM pollution events. Information should also be tailored to specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes.

In order to address the above identified shortcomings, we ask your views on the following potential interventions:

- (F1) Introduce more specific requirements to ensure regular reporting of up-to-date data / information (instead of allowing Member States to report data as available).
- (F2) Require Member States to provide specific health / and health protection information to public as soon as exceedances occur.
- (F3) Mandate specific communication channels with citizens including user-friendly tools for public access to air quality and health risks information and monitoring to use (for example, smartphone apps and/or social media dedicated pages).
- (F4) Require Member States to use harmonised air quality index bands.

43. **Intervention F1: Introduce more specific requirements to ensure regular reporting of up-to-date data / information (instead of allowing Member States to report data as available)**

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Information should also be tailored to specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

44. **Intervention F2: Require Member States to provide specific health / and health protection information to public as soon as exceedances occur.**

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Alert thresholds are an essential tool to protect people, especially vulnerable groups, during high pollution events. As such, there is a need for alert thresholds and effective short-term action plans for all main pollutants. Information should also be tailored to specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

45. **Intervention F3: Mandate specific communication channels with citizens including which user-friendly tools for public access to air quality and health risks information and monitoring to use (for example, smartphone apps and/or social media dedicated pages)**

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

Information should also be tailored to specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes.

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

46. **Intervention F4: Require Member States to use harmonised air quality index bands**

a. To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

There should be a harmonised approach for the provision of air quality information across the EU, to tackle the problem that there are currently many different systems in place. Most of these include a colour-coding scheme, but they do not link the concentrations to health threats, especially for vulnerable groups (as for example the Canadian Air Quality Health Index does).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

47. Do you have any other suggestions **for intervention area F**, i.e. for interventions to best inform the public on air quality? In case of possible combinations of interventions, what considerations should be taken into account?

All these interventions can be combined. Their level of effectiveness in reaching specific vulnerable groups of the population, such as patients living with chronic respiratory, cardiovascular diseases and diabetes should be assessed on a yearly basis.

2.8 Policy area 2 – cross-cutting questions

48. Do you have any additional inputs and/or information regarding costs of the interventions presented under Policy Area 2?

49. Please indicate which interventions should be implemented together due to their co-dependency, if any? (e. which interventions critically depend on each other for their successful implementation)

50. Do you have any other comments regarding Policy Area 2? Please also upload any supporting evidence or material you feel is pertinent to the discussion of issues and impacts in this area:

Please upload your file(s)

Policy area 3: Strengthening of 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 (i.e. the measures taken when and where exceedances occur).

However, the criteria on air quality monitoring and modelling could be refined to increase the comparability of air quality data. This revision of EU rules will explore solutions to improve, simplify and increase precision and coherence of requirements with regard to air quality monitoring and modelling, and options to facilitate further the effectiveness of air quality plans.

Policy options and potential interventions under this policy area aim to strengthen air quality monitoring, modelling and plans, including interventions addressing shortcomings already identified elsewhere, namely shortcomings regarding health outcome, implementation, governance, air quality assessment and information.

The questions under policy area 3 cover:

- **Intervention area G:** How to improve air quality assessment regimes, including the scope to combine monitoring, modelling and other assessment methods
- **Intervention area H:** How to improve the minimum number and type of sampling points required for measuring air pollution concentrations?
- **Intervention area I:** How to ensure continuity in the monitoring of air quality?
- **Intervention area J:** How to ensure the correct micro- and macroscale siting of monitoring stations?
- **Intervention area K:** Which requirements on data quality are needed to assess and report air quality?
- **Intervention area L:** Which additional air pollutants should be measured and to what extent should monitoring requirements expanded?
- **Intervention area N:** Which minimum information should be included in an air quality plan?

[Note that 'Intervention area M: How to assess and address transboundary air pollution in local/regional air quality management?' related to both policy areas 2 and 3, is included under policy area 2 above.]

3.1 Intervention area G: How to improve air quality assessment regimes, including the scope to combine monitoring, modelling and other assessment methods?

Shortcomings identified in relation to intervention area G:

- Flexibilities may sometimes impact the comparability of data for the assessment of air quality.
- Modelling ability has improved which allows for much more detail.
- Indicative measurements can more readily be deployed to supplement reference samplers in monitoring networks.

[Note that this primarily relates to assessment shortcomings identified in the evaluation of the AAQ Directives.]

* 51. I wish to reply to questions on intervention area G:

- Yes
 No

3.2 Intervention area H: How to improve the minimum number and type of sampling points required for measuring air pollution concentrations?

Shortcomings identified in relation to intervention area H:

- The set minimum number of sampling points for pollutants may impact the quantity of data for the assessment of concentrations across varying locations in zones.
- The various types of monitoring stations and/or sampling point locations are sometimes not sufficiently clearly defined (which may affect the comparability of data).

[Note that this primarily relates to assessment shortcomings identified in the evaluation of the AAQ Directives.]

* 57. I wish to reply to questions on intervention area H:

- Yes
 No

3.3 Intervention area I: How to ensure continuity in the monitoring of air quality?

Shortcomings identified in relation to intervention area I:

- There is no requirement to continue monitoring once a sampling point is established to measure air pollution trends over the longer term.
- There is no protocol to follow should a sampling point have to be re-located due to, for example, infrastructure development, which leads to inconsistency in data.

[Note that this primarily relates to assessment shortcomings identified in the evaluation of the AAQ Directives.]

* 63. I wish to reply to questions on intervention area I:

- Yes
 No

3.4 Intervention area J: How to ensure the reliable micro- and macro-scale siting of sampling points?

Shortcomings identified in relation to intervention area J:

- The criteria micro- and macro-scale siting of sampling points offer some flexibility to competent authorities so that air quality monitoring networks best correspond to local circumstances.
- Concerns have been raised that the criteria as defined offer too much leeway to competent authorities and that more restrictively defined siting criteria would help ensure a higher degree of confidence in the comparability of monitored air quality.
- While a number of ambiguities as regards the siting criteria have been identified, these have not been found to generally have led to systemic shortcomings in the monitoring network.

[Note that this primarily relates to assessment shortcomings identified in the evaluation of the AAQ Directives.]

* 70. I wish to reply to questions on intervention area J:

- Yes
 No

3.5 Intervention area K: Which requirements on data quality are needed to assess and report air quality?

Shortcomings identified in relation to intervention area K:

- Monitoring data that does not meet current data quality objectives/siting criteria are often not reported, leading to potential inconsistency between information published nationally and at EU level;
- Models are used but there is no requirement to meet a data quality objective for modelling data, potentially leading to confusion over robustness of assessments.

[Note that this primarily relates to assessment shortcomings identified in the evaluation of the AAQ Directives.]

* 76. I wish to reply to questions on intervention area K:

- Yes
 No

3.6 Intervention area L: : Which additional air pollutants should be measured and to what extent should monitoring requirements be expanded?

Shortcomings identified in relation to intervention area L:

- There is no requirement to monitor pollutants of emerging concern, leading to a possible lack of data on related pollutant levels – and no mechanism to add additional pollutants to be monitored;
- There is lack of monitoring sites that comprehensively measure all air pollutants in urban areas, i.e. identified as research supersites, to facilitate understanding of air pollution science.

[Note that this primarily relates to assessment shortcomings and information shortcomings identified in the evaluation of the AAQ Directives.]

* 83. I wish to reply to questions on intervention area L:

- Yes
 No

3.7 Intervention area N: Which minimum information should be included in an air quality plan?

Shortcomings identified in relation to intervention area N:

- Air quality plans do not always address all sources effectively; some measures may be ineffective, or seem disproportionate;
- There is lack of quantification of the impact of measures in air quality plans and often it is not clear if measures will achieve compliance as soon as possible;
- Wider impacts of air quality plans are not always clear especially in relation to the expected health benefits.

[Note that this primarily relates to information shortcomings identified in the evaluation of the AAQ Directives.]

* 90. I wish to reply to questions on intervention area N:

- Yes
- No

91. How do you see the above shortcomings developing without changes to the Ambient Air Quality Directives?

In order to address the above identified shortcomings, we ask your views on the following potential interventions:

- (N1) Refine the minimum information to be included in an air quality plan.

92. **Intervention N1: Refine the minimum information to be included in an air quality plan.**

a. i To which extent would this intervention **address the above identified shortcomings?**

- Not at all
- To some extent
- To a large extent
- Fully
- No opinion

a. ii To which extent would the below specific interventions **address the above identified shortcomings?**

	Not at all	To some extent	To a large extent	Fully	No opinion
1) Require a quantification of emission reduction in t /a for air quality measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2) Require estimates of concentration reduction of planned air quality measures in µg/m ³ at all sampling points in exceedance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3) Require an assessment of health impacts of the status-quo and after the implementation of air quality measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
4) Require an emission source apportionment of all relevant sectors that contribute to the exceedance (in line with the existing National Air Pollution Control Programmes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5) Require that an assessment of emissions and the responsible actors for those emissions should be					

carried out (e.g. city level, regional level, national level, and transboundary contributions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6) Require all relevant competent authorities that are responsible for implementing measures of the air quality plan to sign a “ commitment clause ” in the air quality plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7) Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

b. Please **elaborate on the answer** you provided to the question above (reasons for why the intervention may/may not address the identified shortcomings).

c. Please elaborate on the **administrative costs expected** to result from this intervention (types of costs and costs estimates, if available). Please specify the governance level your estimates concern (EU, national, regional, local) and where possible, please provide monetary estimates (in EUR, or a rounded or range of costs where accurate estimates are unavailable).

94. **Do you have any other suggestions for intervention area N, i.e. for interventions related to which minimum information should be included in an air quality plan?** In case of possible combinations of interventions, what considerations should be taken into account?

3.8 Policy area 3 – cross-cutting questions

95. Do you have any additional inputs and/or information regarding costs of the interventions presented under this Policy Area 3?

96. **Please indicate which interventions should be implemented together due to their co-dependency, if any?** (i.e. which interventions critically depend on each other for their successful implementation)

97. Do you have any other comments regarding Policy Area 3?

Please also upload any supporting evidence or material you feel is pertinent to the discussion of issues and impacts in this area:

Please upload your file(s)

Contact

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