# Initial quantitative results of The public consultation on options for revision of the EU Thematic Strategy on Air Pollution

#### 27 March 2012

Tony Zamparutti and Liva Stokenberga, Milieu Ltd, and the Ecorys Consortium

This public consultation ran from 10 December 2012 until 4 March 2013 via the European Commission's 'Your voice in Europe' page. This draft report presents the initial quantitative results. Please note that this initial draft has not gone through a full quality review within the Ecorys consortium: all results presented here are preliminary and may be updated in the review process. Consequently, **this draft is not for quotation**. It is provided as background information for the Fifth meeting of the Stakeholder Expert Group on the EU Air Policy Review, on 3 April 2013, and is not intended for further distribution.

The consultation used two questionnaires: a short questionnaire for the general public and a longer version for experts and stakeholders. All of the quantitative (i.e. multiple choice) questions for the general public were also found in the longer questionnaire for experts and stakeholders. The results of the two questionnaires are presented together in this draft report.

#### 1. Number of responses

A total of 1934 individuals responded to the questionnaire for the general public.

A total of 371 responses submitted to the questionnaire for experts and stakeholders are assessed in this analysis.<sup>2</sup> Of these 371 responses, 229 were submitted on behalf of an organisation; and the remaining 142 responses were submitted on behalf of an individual. The preliminary analysis of the multiple choice questions is presented below. For each question on this longer survey, a breakdown of responses is provided for the following stakeholder groups (if applicable): all expert/stakeholder responses (371 responses), business (114 responses), government (42 responses), non-governmental sector (61) and individual experts (142).

<sup>&</sup>lt;sup>1</sup> See http://ec.europa.eu/environment/consultations/air pollution en.htm

<sup>&</sup>lt;sup>2</sup> Originally 369 contributions were submitted within the consultation deadline. Six contributions were subsequently deleted by the survey administrator: one was a duplicate record; another was an evident hacking attempt; the other four were deleted because the respondents indicated in their comments that they were not the appropriate respondents for the questionnaire. Eight contributions were added by the survey administrator: these contributions were sent by stakeholder organisations and experts to the European Commission via email, rather than submitted through the online system.

#### 2. Introductory questions for the general public

#### Question A: country of residence

The questionnaire for the general public was filled out by 1930 respondents residing in 25 EU Member States (all except Latvia and Luxemburg). A further two respondents reside in Europe but outside the EU Member States; another two reside outside Europe. Member States particularly well represented are Belgium (625 responses, or 32.3% of the total), Italy (382 responses, 19.8%), Netherlands (477 responses, 24.7%), and the United Kingdom (103 responses, 5.3%): these four together account for 82.1% of the responses.

**Question B** asked for the name of the respondents.

#### Question C: Do you now work on air pollution issues, or have you done so in the past?

For 343 respondents (or 17.7%), air pollution is or had been an area of their professional work.

#### Question D: What type of area do you live in?

The majority of the respondents (82.5%) live in an urban area: 59.1% live in a large city and 23.4% live in a town or small city. 10.1% live in a suburban area and the remaining 7.3% of respondents live in a rural area.

#### 3. Introductory questions for experts and stakeholders

#### Question A: Are you responding to this consultation as an individual or on behalf of an organisation?

As noted above, 229 responses were submitted on behalf of organisations, and the remaining 142 responses were submitted on behalf of individual experts. Organisations and individual experts were asked different follow-up questions information.

#### Follow-up on question A for organisations:

#### Question A1: What type of organization do you represent?

114 respondents represented a business entity. This type is comprised of six categories:

- an industrial interest group, business association or sectoral association (80);
- a large enterprise (26);
- a medium-sized enterprise (2);
- a small enterprise (0);
- a micro enterprise (10);
- self-employed (4).

42 respondents responded on behalf of a government, either at the national level (11), regional level (26), or the local level (5). No responses were submitted on behalf of an international organisation.

61 responses were submitted on behalf of the non-governmental sector organisations (comprising of civil society groups, environmental groups, consumer groups and charities).

In terms of the research sector, 1 respondent represented a public research institution; and 2 respondents represented a private research institution. The remaining 9 respondents that represent an organisation chose the answer option 'other'.

In sections 4 onward, results are presented both for the expert/stakeholder responses as a whole and separately for business, government, NGO and expert responses. Due to their small numbers, however, responses for the research sector and others are not presented.

Question A2: Does your organisation work mainly on an EU-wide basis or in a single country?

business (114)		×1,70
	Number of responses	% responses (114)
EU-wide	55	48.3%
Focus on a single country	47	41.2%
Other (please elaborate below in question D)	12	10.5%

non-governmental sector

	Number of responses	% responses (61)
EU-wide	20	32.8%
Focus on a single country	36	59.0%
Other (please elaborate below in question D)	5	8.2%

Almost one-half of business respondents and nearly 60% of NGO respondents come from organisations that work mainly on an EU-wide basis. (The government responses indicated that nearly all their organisations worked on a national basis, as could be expected.)

#### Question A3: Please indicate the country where your organisation is located

#### All organisation responses (229)

Overall, the organisations represented are located in 21 of the 27 EU Member States. (No organisations responded from Cyprus, Latvia, Lithuania, Luxembourg, Malta and Romania.) The Member States with the greatest number of organisations responding are: Belgium (22.7% of respondents), Germany (19.2%), France (10.5%), and the UK (10%). These four Member States together represent 62.4% of all organisation responses.

#### Business responses (114)

The business sector organisations are located in 15 of the 27 EU Member States, with a high number from Belgium (27.2%), Germany (15.8%) and France (11.4%).

#### Government responses (42)

Government responses came from 11 of the 27 EU Member States, with a large proportion from Germany (12 responses or 28.6%), Italy (6 responses or 14.3%) and the UK (5 responses or 11.9%).

#### Non-governmental sector responses (61)

The non-governmental sector organisations responding to the questionnaire are located in 16 of the 27 EU Member States. The highest number is from Belgium (17 responses of 27.8%), followed by France (10 responses or 16.4%) and Germany (10 responses or 16.4%).

#### Follow-up on question A for individual experts:

#### **Question Aa1: Please indicate your country of residence**

#### Responses of individual experts (142)

The individual experts who responded reside in 16 of the EU Member States. A large proportion reside in Belgium (42 experts or 30% of all individual experts), Germany (26 experts or 18.3%) and Italy (26 experts or 18.3%).

#### Question C: What type of area do you live in?

Individual experts were asked to choose **one** response

#### individual experts (142)

	Number of responses	% responses (142)
Rural area	15	10.6%
Suburban area	24	16.9%
Urban area: town/small city	38	26.8%
Urban area: large city	65	45.8%

Over 70% of the individual experts live in urban areas.

#### Information from both experts and stakeholders:

#### Question B: Do you now work on air pollution issues, or have you done so in the past?

Respondents were asked to choose one response

#### All expert/stakeholder responses

	Number of responses	% responses (371)
Yes, air pollution has been the main focus of my professional work	112	30.2%
Yes, air pollution has been one issue in my professional work	204	55.0%
No	55	14.8%

hiicinocc	responses
Dusiness	responses

	Number of responses	% responses (114)
Yes, air pollution has been the main focus of my professional work	18	15.8%
Yes, air pollution has been one issue in my professional work	93	81.6%
No	3	2.6%

#### government responses

	Number of responses	% responses (42)
Yes, air pollution has been the main focus of my professional work	32	76.2%
Yes, air pollution has been one issue in my professional work	10	23.8%
No	0	0.0%

#### the non-governmental sector responses

	Number of responses	% responses (42)
Yes, air pollution has been the main focus of my professional work	19	31.2%
Yes, air pollution has been one issue in my professional work	39	63.9%
No	3	4.9%

#### individual experts

	Number of responses	% responses (142)
Yes, air pollution has been the main focus of my professional work	38	26.8%
Yes, air pollution has been one issue in my professional work	56	39.4%
No	48	33.8%

Nearly all the respondents to the experts and stakeholders survey indicated that air pollution had been either the main focus or one focus of their professional work. Curiously, about one-third of the individual experts indicated that air pollution had *not* been a focus of their professional work. It is possible some are involved in air pollution issues outside of work, e.g. in volunteer groups including NGOs. This issue will be considered in the further review of results.

# 4. Ensuring compliance with EU air quality requirements and coherence with international commitments in the short term

The introduction to question 1 noted issues of non-compliance, in particular for the Ambient Air Quality Directive 2008/50/EC (AAQD) for several pollutants and also for the National Emissions Ceilings Directive 2001/81/EC (NECD) with regard to NOx (nitrogen oxides) ceilings.

Question 1: How should the EU modify or supplement its approach to ensure compliance with current air quality legislation? Respondents were asked to choose one or more responses

#### General public (1934 responses)

	Number of responses	% responses
No adjustment of the approach described above is needed.	28	1.5%
Additional non-legislative options	353	18.3%
Relaxing the obligations under Ambient Air Quality Directive	34	1.8%
Strengthening emissions controls	1779	92.0%
Don't know	24	1.2%

#### **Experts and stakeholders**

All expert/stakeholder responses (371)

	Number of responses	% responses (371)
No adjustment of the approach described above is	42	11.3%
needed.		
Additional non-legislative options: for example by	168	45.3%
establishing partnership agreements with MS that focus		
Member State efforts to address non-compliance with air		
quality objectives		
Relaxing the obligations under Ambient Air Quality	31	8.4%
Directive		
Strengthening emissions controls: for example more	242	65.2%
stringent emissions ceilings or source controls that		
support the attainment of air quality limit values		
Don't know	13	3.5%

#### business (114)

	Number of responses	% responses (114)
No adjustment of the approach described above is	27	23.7%
needed.		
Additional non-legislative options: for example by	78	68.4%
establishing partnership agreements with MS that focus		
Member State efforts to address non-compliance with air quality objectives		

Relaxing the obligations under Ambient Air Quality	14	12.3%
Directive		
Strengthening emissions controls: for example more stringent emissions ceilings or source controls that support the attainment of air quality limit values	20	17.5%
Don't know	10	8.8%

#### government (42)

	Number of responses	% responses (42)
No adjustment of the approach described above is needed.	1	2.4%
Additional non-legislative options: for example by establishing partnership agreements with MS that focus Member State efforts to address non-compliance with air quality objectives	27	64.3%
Relaxing the obligations under Ambient Air Quality Directive	5	11.9%
Strengthening emissions controls: for example more stringent emissions ceilings or source controls that support the attainment of air quality limit values	35	83.3%
Don't know	1	2.4%

#### non-governmental sector (61)

	Number of responses	% responses (61)
No adjustment of the approach described above is needed.	4	6.6%
Additional non-legislative options: for example by establishing partnership agreements with MS that focus Member State efforts to address non-compliance with air quality objectives	13	21.3%
Relaxing the obligations under Ambient Air Quality Directive	2	3.3%
Strengthening emissions controls: for example more stringent emissions ceilings or source controls that support the attainment of air quality limit values	57	93.4%
Don't know	0	0.0%

#### individual experts (142)

	Number of responses	% responses (142)
No adjustment of the approach described above is needed.	9	6.3%
Additional non-legislative options: for example by establishing partnership agreements with MS that focus Member State efforts to address non-compliance with air quality objectives	44	31.0%
Relaxing the obligations under Ambient Air Quality Directive	8	5.6%

Strengthening emissions controls: for example more stringent emissions ceilings or source controls that support the attainment of air quality limit values	122	85.9%
Don't know	1	0.7%

Among respondents to the questionnaire for the *general public*, a great majority are in favor of strengthening emissions controls (92% of respondents). The next most popular response was to introduce additional non-legislative options (note that here as for many questions, respondents could choose more than one option): this was selected by 18.3% of respondents.

For experts and stakeholders, strengthening emissions controls received the largest number of responses (65.2%). This option was chosen by over 80% of government, NGOs and individual expert responses, but only 17.5% of business responses. Additional non-legislative options was chosen by 45.3% of all respondents to this questionnaire, and a majority of both business and government responses. Among business responses, however, non-legislative options received the highest response (68.4%), with only 17.5% in favour of strengthening emissions controls.

#### Question 1a: Which options should be considered as additional non-legislative measures?

This question was asked to respondents who chose the option 'Additional non-legislative options' in Question 1.

Respondents were asked to choose **one or more** responses for this question.

#### General public (353 responses)

	Number of responses	% responses (353)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	244	69.1%
Partnership implementation agreements negotiated between the Commission and Member States in infringement, where further legal action would be suspended subject to proper implementation of agreed transparent and binding programmes to address air pollution	231	65.4%
Other	28	7.9%
Don't know	8	2.3%

#### **Experts and stakeholders**

All expert/stakeholder responses (168 responses)

	Number of responses	% responses (168)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	126	75.0%
Partnership implementation agreements negotiated between the Commission and Member States in infringement, where further legal action would be suspended subject to proper implementation of agreed transparent and binding programmes to address air pollution	109	64.9%
Other (please describe below in question 2)	28	16.7%

#### business (78)

DUSTITESS (70)		
	Number of responses	% responses (78)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	61	78.2%
Partnership implementation agreements negotiated between the Commission and Member States in infringement, where further legal action would be suspended subject to proper implementation of agreed transparent and binding programmes to address air pollution	42	53.9%
Other (please describe below in question 2)	17	21.8%

#### government (27)

	Number of responses	% responses (27)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	23	85.2%
Partnership implementation agreements negotiated between the Commission and Member States in infringement, where further legal action would be suspended subject to proper implementation of agreed transparent and binding programmes to address air pollution	23	85.2%
Other (please describe below in question 2)	2	7.4%
Don't know	0	0.0%

#### non-governmental sector (13)

	Number of	% responses
	responses	(13)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	9	69.2%
Partnership implementation agreements negotiated between the Commission and Member States in infringement, where further legal action would be suspended subject to proper implementation of agreed transparent and binding programmes to address air pollution	11	84.6%

Other (please describe below in question 2)	2	15.4%
Don't know	0	0,.0%
individual experts (44)		
	Number of	% responses
	responses	(44)
Governance support, for example through competence building programmes and guidance on increased and more effective use of existing EU funding sources	28	63.6%
Partnership implementation agreements negotiated between the	28	63.6%

For respondents to the *general public* survey who indicated non-legislative options in Question 1, both 'Governance support' and 'Partnership implementation agreements' received high levels of support (over 65%). These two options both received a majority of support also from expert and stakeholder respondents, with the highest support from government respondents.

0

15.9%

0.0%

#### Question 1b: Which options should be considered to relax obligations under the AAQD?

Commission and Member States in infringement, where further

implementation of agreed transparent and binding programmes to

legal action would be suspended subject to proper

Other (please describe below in question 2)

This question was only asked to respondents who chose option 'Relaxing the obligations under Ambient Air Quality Directive' in Question1. Respondents were asked to choose **one** response

General	public
---------	--------

address air pollution

Don't know

	Number of responses	% responses (34)
Weaken those air quality limit values for which there is currently widespread non-compliance (in particular PM and NO2)	22	64.1%
Postpone the date for attainment of the existing limit values	6	17.7%
Other	6	17.7%
Don't know	0	0%

#### **Experts and stakeholders**

all expert/stakeholder responses (31)

		Number of responses	% responses (31)

Weaken those air quality limit values for which there is currently widespread non-compliance (in particular PM and NO2)	15	48.4%
Postpone the date for attainment of the existing limit values.	9	29.0%
Other (please describe below in question 2)	6	19.4%
Don't know	1	3.2%

On this question, it should be noted that the response numbers are low, as few respondents on either survey chose the option to relax AAQD obligations in question 1. For both the general public and the expert/stakeholder questionnaires, the option to 'Weaken those air quality limit values for which there is currently widespread non-compliance (in particular PM and NO2)' received the most responses. (The sub-groups within the expert/stakeholder questionnaire are not evaluated as each group is small.)

### Question 1c: Which options should be considered to set more stringent obligations on air pollution emissions?

This question was only asked to respondents who chose option 'Strengthening emissions controls: for example more stringent emissions ceilings or source controls that support the attainment of air quality limit values' in Question 1. Respondents were asked to choose **one** response

General public				
	Number re	esponses	% responses (1779)	
Set more stringent emission ceilings for 2020 in a revise National Emissions Ceilings (NEC) Directive. This option wo the priority on air pollution measures taken by national author to meet the ceilings	uld set		7.6%	
Set more stringent emission source controls at an EU level (combustion plants, motor vehicles and other sources), focus the sectors where measures to reduce emissions will be moeffective in terms of improving air quality	sing on		18.7%	
Combine, in a matched approach, more stringent national of under the NEC Directive with more stringent source controls level	_		71.4%	
Other	24		1.4%	
Don't know	16		0.9%	
Experts and stakeholders  All expert/stakeholder responses (242)				
	Number of response	es	ses (242)	

Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings.	9	3.7%
Set more stringent emission source controls at an EU level (e.g. on combustion plants, motor vehicles and other sources), focusing on the sectors where measures to reduce emissions will be most cost-effective in terms of improving air quality	63	26.0%
Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level	157	64.9%
Other (Please describe below in question 2)	10	4.1%
Don't know	3	1.2%

#### business (20)

	Number of responses	% responses (20)
Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings.	1	5.0%
Set more stringent emission source controls at an EU level (e.g. on combustion plants, motor vehicles and other sources), focusing on the sectors where measures to reduce emissions will be most cost-effective in terms of improving air quality	6	30.0%
Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level	7	35.0%
Other (Please describe below in question 2)	4	20.0%
Don't know	2	10.0%

### government (35)

	Number of responses	% responses (35)
Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings.	1	2.9%
Set more stringent emission source controls at an EU level (e.g. on combustion plants, motor vehicles and other sources), focusing on the sectors where measures to reduce emissions will be most cost-effective in terms of improving air quality	13	37.1%
Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level	20	57.1%
Other (Please describe below in question 2)	1	2.0%
Don't know	0	0.0%

the non-governmental sector responses (57)

	Number of responses	% responses (57)
Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings.	1	1.8%
Set more stringent emission source controls at an EU level (e.g. on combustion plants, motor vehicles and other sources), focusing on the sectors where measures to reduce emissions will be most cost-effective in terms of improving air quality	5	8.8%
Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level	50	87.7%
Other (Please describe below in question 2)	1	1.8%
Don't know	0	0.0%

#### individual experts (122)

	Number of requested records	% Requested records(122)
Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings.	6	4.9%
Set more stringent emission source controls at an EU level (e.g. on combustion plants, motor vehicles and other sources), focusing on the sectors where measures to reduce emissions will be most cost-effective in terms of improving air quality	39	32.0%
Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level	75	61.5%
Other (Please describe below in question 2)	1	0.8%
Don't know	1	0.8%

In both questionnaires, the option to 'Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level' received strong support (over 60% of respondents on each). Among business respondents, however, this option received only one-third of responses).

The option to 'set more stringent emission source controls' was second but much less popular (one-quarter of expert/stakeholder responses, but less than one-fifth of those from the general public).

Question 1d: What further level of ambition (if any) should the revised NEC Directive aim for in 2020? This question was only asked to respondents who chose the option 'Set more stringent emission ceilings for 2020 in a revised EU National Emissions Ceilings (NEC) Directive. This option would set the priority on air pollution measures taken by national authorities to meet the ceilings' or the option 'Combine, in a matched approach, more stringent national ceilings under the NEC Directive with more stringent source controls at EU level' in Question 1c.

This question was only asked in the questionnaire for experts and stakeholders. Respondents were asked to choose **one** response

#### **Experts and stakeholders**

all expert/stakeholder responses (166)

	Number responses	% responses (166)
The NEC Directive should only match the recently-agreed 2020 ceilings in the so called Gothenburg Protocol under the UNECE Convention on Long Range Transboundary Air Pollution	6	3.6%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution	18	10.8%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy on Air Pollution in order to support further objectives for air pollution reduction, including supporting the attainment of air quality limit values	129	77.7%
Other (Please describe below in question 2)	3	1.8%
Don't know	6	3.6%

business responses (8)

	Number of requested records	% Requested records(8)
The NEC Directive should only match the recently-agreed 2020 ceilings in the so called Gothenburg Protocol under the UNECE Convention on Long Range Transboundary Air Pollution	0	0.0%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution	0	0.0%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy on Air Pollution in order to support further objectives for air pollution reduction, including supporting the attainment of air quality limit values	7	87.5%
Other (Please describe below in question 2)	1	12.5%

government responses (21)

	Number of responses	% responses (21)
The NEC Directive should only match the recently-agreed 2020 ceilings in the so called Gothenburg Protocol under the UNECE Convention on Long Range Transboundary Air Pollution	2	9.5%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution	9	42.9%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy on Air Pollution in order to support further objectives for air pollution reduction, including supporting the attainment of air quality limit values	8	38.1%
Other (Please describe below in question 2)	1	4.8%
Don't know	0	0.0%

the non-governmental sector responses (51)

	Number of responses	% responses (51)
The NEC Directive should only match the recently-agreed 2020 ceilings in the so called Gothenburg Protocol under the UNECE Convention on Long Range Transboundary Air Pollution	0	0.0%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution	3	5.9%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy on Air Pollution in order to support further objectives for air pollution reduction, including supporting the attainment of air quality limit values	48	94.1%
Other (Please describe below in question 2)	0	0.0%
Don't know	0	0.0%

individual experts (81)

	Number of requested records	% Requested records(81)
The NEC Directive should only match the recently-agreed 2020 ceilings in the so called Gothenburg Protocol under the UNECE Convention on Long Range Transboundary Air Pollution	3	3.7%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution	5	6.2%
The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy on Air Pollution in order to support further objectives for air pollution reduction, including supporting the attainment of air quality limit values	63	77.8%

Other (Please describe below in question 2)	1	1.2%
Don't know	6	7.4%

Over three-quarters of the expert/stakeholder responses indicated that NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings and the Thematic Strategy. Support among business and NGO respondents for this option was even higher. Less than 40% of government respondents, however, chose this option, and slightly more than 40% indicated instead that 'The NEC Directive ceilings for 2020 should go beyond the 2020 Gothenburg ceilings in order to achieve the objectives in the Thematic Strategy on Air Pollution'.

# 5. Further reducing exposure to damaging air pollution in the medium to long term

Question 3: How should future EU air pollution policy interact with a new climate and energy framework for 2030? Respondents were asked to choose one response

#### **General public**

	Number of responses	% responses (1934)
It should maximise the synergies between the policies, but with no new air pollutant emissions reductions except those delivered by the climate and energy policy	91	4.7%
It should maximise the synergies between the policies, and set out additional measures to reduce air pollutant emissions and improvements to air quality	1795	92.8%
Other	19	1.0%
Don't know	29	1.5%

#### **Experts and stakeholders**

all expert/stakeholder responses

	Number of responses	% responses(371)
It should maximise the synergies between the policies, but with no new air pollutant emissions reductions except those delivered by the climate and energy policy	86	23.2%
It should maximise the synergies between the policies, and set out additional measures to reduce air pollutant emissions and improvements to air quality	245	66.0%
Other (please describe below in question 5)	31	8.4%
Don't know	9	2.4%

#### business responses

	Number of responses	% responses (114)
It should maximise the synergies between the policies, but with no new air pollutant emissions reductions except those delivered by the climate and energy policy	62	54.4%
It should maximise the synergies between the policies, and set out additional measures to reduce air pollutant emissions and improvements to air quality	19	16.7%
Other (please describe below in question 5)	26	22.8%
Don't know	7	6.1%

government responses		
	Number of responses	% responses (42)
It should maximise the synergies between the policies, but with no new air pollutant emissions reductions except those delivered by the climate and energy policy	5	11.9%
It should maximise the synergies between the policies, and set out additional measures to reduce air pollutant emissions and improvements to air quality	33	78.6%
Other (please describe below in question 5)	3	7.1%
Don't know	1	2.4%

#### the non-governmental sector responses

	Number of responses	% responses (61)
It should maximise the synergies between the policies, but with no new air pollutant emissions reductions except those delivered by the climate and energy policy	6	9.8%
It should maximise the synergies between the policies, and set out additional measures to reduce air pollutant emissions and improvements to air quality	55	90.2%
Other (please describe below in question 5)	0	0.0%
Don't know	0	0.0%

#### individual experts

	Number of requested	% Requested
	records	records(142)
It should maximise the synergies between the policies, but	11	7.8%
with no new air pollutant emissions reductions except		
those delivered by the climate and energy policy		
It should maximise the synergies between the policies,	129	90.9%
and set out additional measures to reduce air pollutant		
emissions and improvements to air quality		
Other (please describe below in question 5)	1	0.7%
Don't know	1	0.7%

Over 90% of respondents to the survey for the general public indicated that future EU air pollution policy should set out additional measures, i.e. beyond maximising the synergies with climate and energy policy. This option was chosen by two-thirds of the expert/stakeholder respondents; however, among these, only 19 business responses (16.7%) chose this option, in contrast to strong majorities of the government, NGO and expert respondents. Just over 50% of the business respondents instead chose the option to maximise synergies with climate and energy policy with 'no new air pollutant emissions reductions'.

Business respondents in particular proposed other options. A short overview to be provided.

Question 4: Should specific complementary action in the EU be pursued to curb emission of short-lived climate pollutants (SLCP) and their precursors, to improve both air quality impacts on health but also to boost climate mitigation in the short term? Respondents were asked to choose one response

#### **General public**

	Number of responses	% responses (1934)
Yes	1770	91.5%
No	34	1.8%
Don't know	130	6.7%

#### **Experts and stakeholders**

all expert/stakeholder responses

	Number of responses	% responses (371)
Yes	272	73.3%
No	53	14.3%
Don't know	46	12.4%

#### business

	Number of responses	% responses (114)
Yes	52	45.6%
No	41	36.0%
Don't know	21	18.4%

#### government

	Number of responses	% responses (42)
Yes	37	88.1%
No	2	4.8%
Don't know	3	7.1%

#### non-governmental sector

	Number of responses	% responses (61)
Yes	56	91.8%
No	2	3.3%
Don't know	3	4.9%

#### individual experts

	Number of responses	% responses (142)
Yes	118	83.1%
No	8	5.6%
Don't know	16	11.3%

Just over 90% of the respondents to the general public questionnaire, and almost 80% of respondents to the expert/stakeholder questionnaire, are in favour of complementary EU action to curb emissions of short-lived climate pollutants (SLCPs) and their precursors. Only 45.6% of business respondents are in favour, however.

#### Question 4a: Should specific complementary action be pursued to curb black carbon emissions?

This question was only asked to respondents who chose the option 'Yes' in Question 4. Respondents were asked to choose **one** response

#### **General public**

	Number of responses	% responses (1770)*
Yes	1685	95.2%
No	17	1.0%
Don't know	39	2.2%

<sup>\*</sup>Response to question 4a was optional. 98.4% of the 1770 Yes responses to question 4 completed this question.

#### **Experts and stakeholders**

all expert/stakeholder responses (272)

	Number of responses	% responses (272)*
Yes (please describe below in question 5)	219	80.5%
No	7	2.6%
Don't know	31	11.4%

<sup>\*</sup>The question was optional. 94.5% of respondents chose to answer the question

#### business responses (52)

	Number of responses	% responses (52)*
Yes (please describe below in question 5)	34	65.4%
No	2	3.9%
Don't know	13	25.0%

<sup>\*</sup>The question was optional. 94.2% of respondents chose to answer the question

#### government responses (37)

	Number of responses	% responses (37)*
Yes (please describe below in question 5)	34	91.9%
No	1	2.7%
Don't know	1	2.7%

<sup>\*</sup>The question was optional. 97.3% of respondents chose to answer the question

#### the non-governmental sector responses (56)

	Number of responses	% responses (56)
Yes (please describe below in question 5)	50	89.3%
No	0	0,00%
Don't know	6	10.7%

	Number of responses	% responses (118)*
Yes (please decribe below in question 5)	93	78.8%
No	4	3.4%
Don't know	11	9.3%

<sup>\*</sup>The question was optional. 91.5% of respondents chose to answer the question

Strong majorities – 95% of general public respondents and 80% of expert/stakeholder respondents – are in favour of specific action to curb black carbon emissions. A majority of each expert/stakeholder subgroup is in favour; however, on this question, one-quarter of business respondents chose 'Don't know'.

## Question 4b: Should specific action to address ozone precursors that are short-lived climate pollutants, such as methane, be reinforced?

This question was only asked to respondents who chose the option 'Yes' in Question 4. Respondents were asked to choose **one** response

#### **General public**

	Number of responses	% responses (1770)*
Yes	1600	90.4%
No	36	2.0%
Don't know	114	6.4%

<sup>\*</sup> Response to question 4b was optional. 98.4% of the 1770 Yes responses to question 4 completed this question.

#### **Experts and stakeholders**

all expert/stakeholder responses (272)

	Number of responses	% responses (272) *
Yes (please describe below in question 5)	204	75.0%
No	16	5.9%
Don't know	37	13.6%

<sup>\*</sup>The question was optional. 94.5% of respondents chose to answer the question

#### business responses (52)

	Number of responses	% responses (52)*
Yes (please describe below in question 5)	24	46.2%
No	7	13.5%
Don't know	17	32.7%

<sup>\*</sup>The question was optional. 92.4% of respondents chose to answer the question

#### government responses (37)

	Number of responses	% responses (37)*
Yes (please describe below in question 5)	25	67.6%
No	7	18.9%
Don't know	4	10.8%

<sup>\*</sup>The question was optional. 97.3% of respondents chose to answer the question

#### the non-governmental sector responses (56)

	Number of responses	% responses (56)
Yes (please describe below in question 5)	54	96.4%
No	0	0.0%
Don't know	2	3.6%

<sup>\*</sup>The question was option, ...

#### individual experts (118)

	Number of responses	% responses (118)
Yes (please describe below in question 5)	92	78.0%
No	2	1.7%
Don't know	14	11.9%

<sup>\*</sup>The question was optional. 91.6% of respondents chose to answer the question

Strong majorities – 90% of general public respondents and 75% of expert/stakeholder respondents – are in favour of specific action to curb black carbon emissions. Among business respondents, however, support was just under 50%, and almost one-third chose 'Don't know'.

#### Question 6: Which target year should be the main focus of the revised Thematic Strategy?

This question was only asked on the expert/stakeholder questionnaire. Respondents were asked to choose **one** response

#### **Experts and stakeholders**

all expert/stakeholder responses

	Number of responses	% responses(371)
2025	176	47.4%
2030	142	38.3%
Other (please comment below in question 8)	37	10.0%
Don't know	16	4.3%

business responses

,	Number of responses	% responses (114)
2025	13	11.4%
2030	84	73.7%
Other (please comment below in question 8)	9	7.9%
Don't know	8	7.0%

government responses

gerenment responde	Number of responses	% responses (42)
2025	14	33.3%
2030	25	59.5%
Other (please comment below in question 8)	2	4.8%
Don't know	1	2.4%

the non-governmental sector responses

	Number of responses	% responses (61)
2025	52	85.3%
2030	6	9.8%
Other (please comment below in question 8)	3	4.9%
Don't know	0	0.0%

#### individual experts

	Number of responses	% responses (142)
2025	92	64.8%
2030	22	15.5%
Other (please comment below in question 8)	22	15.5%
Don't know	6	4.2%

For the expert/stakeholder respondents as a whole, just under half chose 2025 as a target year, while almost 40% chose 2030. A majority of NGO and individual respondents chose 2025; a majority of business and government respondents instead chose 2030.

# Question 6a: If the target year is 2030, should the EU set an interim target for Member States to achieve for 2025 to strengthen the achievement of the 2030 objective?

This question was asked on the expert/stakeholder questionnaire. Respondents were only asked to respond if they chose the option '2030' in Question 6. Respondents were asked to choose **one** response.

#### **Experts and stakeholders**

all expert/stakeholder responses (142)

	Number of responses	% responses (142)
Yes, interim targets should be set on an indicative (i.e. voluntary) basis	40	28.2%
Yes, interim targets should be set on a mandatory basis, e.g. via national emissions ceilings	44	31.0%
No, interim targets should not be set	42	29.6%
Don't know	16	11.3%

#### business responses (84)

	Number of responses	% responses (84)
Yes, interim targets should be set on an indicative (i.e. voluntary) basis	22	26.2%
Yes, interim targets should be set on a mandatory basis, e.g. via national emissions ceilings	11	13.1%
No, interim targets should not be set	36	42.9%
Don't know	15	17.9%

#### government responses (25)

	Number of responses	% responses (25)
Yes, interim targets should be set on an indicative (i.e. voluntary) basis	6	24.0%
Yes, interim targets should be set on a mandatory basis, e.g. via national emissions ceilings	17	68.0%
No, interim targets should not be set	2	8.0%
Don't know	0	0.0%

#### the non-governmental sector responses (6)

	Number of responses	% responses (6)
Yes, interim targets should be set on an indicative (i.e. voluntary) basis	4	66.7%
Yes, interim targets should be set on a mandatory basis, e.g. via national emissions ceilings	1	16.7%

No, interim targets should not be set	0	0.0%
Don't know	1	16.7%

#### individual experts (22)

	Number of responses	% responses (22)
Yes, interim targets should be set on an indicative (i.e. voluntary) basis	5	22.7%
Yes, interim targets should be set on a mandatory basis, e.g. via national emissions ceilings	13	59.1%
No, interim targets should not be set	4	18.2%
Don't know	0	0.0%

For the respondents as a whole, more or less equal shares indicated each of the three options. Two-thirds of NGOs respondents indicated that 'interim targets should be set on an indicative (i.e. voluntary) basis)'. In contrast, a majority of government and individual respondents indicated that such targets should be set on a mandatory basis. For business respondents, the largest share (over 40%) said that interim targets should not be said.

# Question 7: How much additional progress should EU air pollution policy pursue in the revised Thematic Strategy?

This question was asked on both surveys. Respondents were asked to choose **one** response.

#### **General public**

	Number of responses	% responses (1934)
No change: only the level of protection delivered by current legislation	26	1.3%
The level delivered by the forthcoming climate and energy framework for 2030, without additional air pollutant emission reductions	74	3.8%
Substantial progress beyond the climate and energy framework, towards the maximum achievable pollution reduction	714	36.9%
The maximum achievable pollution reduction (MTFR)	1075	55.6%
Don't know	45	2.3%

#### **Experts and stakeholders**

#### all expert/stakeholder responses

	Number of responses	% responses (371)
No change: only the level of protection delivered by current legislation	37	10.0%
The level delivered by the forthcoming climate and energy framework for 2030, without additional air pollutant emission reductions	72	19.4%
Substantial progress beyond the climate and energy framework, towards the maximum achievable pollution reduction	123	33.2%
The maximum achievable pollution reduction (MTFR)	120	32.4%
Don't know	19	5.1%

#### business responses

	Number of responses	% responses(114)
No change: only the level of protection delivered by current legislation	29	25.4%
The level delivered by the forthcoming climate and energy framework for 2030, without additional air pollutant emission reductions	52	45.6%
Substantial progress beyond the climate and energy framework, towards the maximum achievable pollution reduction	17	14.9%
The maximum achievable pollution reduction (MTFR)	8	7.0%
Don't know	8	7.0%

government responses		
	Number of responses	% responses (42)
No change: only the level of protection delivered by current legislation	1	2.4%
The level delivered by the forthcoming climate and energy framework for 2030, without additional air pollutant emission reductions	5	11.9%
Substantial progress beyond the climate and energy framework, towards the maximum achievable pollution reduction	26	61.9%
The maximum achievable pollution reduction (MTFR)	3	7.1%
Don't know	7	16.7%

#### the non-governmental sector responses

the non governmental sector responses		
	Number of responses	% responses (61)
No change: only the level of protection delivered by	1	1.6%
current legislation		
The level delivered by the forthcoming climate and energy	3	4.9%
framework for 2030, without additional air pollutant		
emission reductions	AV	
Substantial progress beyond the climate and energy	12	19.7%
framework, towards the maximum achievable pollution		
reduction		
The maximum achievable pollution reduction (MTFR)	44	72.1%
Don't know	1	1.6%

#### individual experts

	Number of responses	% responses (142)
No change: only the level of protection delivered by current legislation	6	4.2%
The level delivered by the forthcoming climate and energy framework for 2030, without additional air pollutant emission reductions	10	7.0%
Substantial progress beyond the climate and energy framework, towards the maximum achievable pollution reduction	63	44.4%
The maximum achievable pollution reduction (MTFR)	63	44.4%
Don't know	0	0.0%

A majority of the respondents to the general public questionnaire (55%) chose 'maximum achievable pollution reduction' as the level of additional progress, and 36.9% called for 'substantial progress'. On the expert/stakeholder questionnaire, these two options each received about one-third of responses. A majority of NGO responses called for the maximum reduction, a majority of government responses called for substantial progress, and individual experts gave both about 44%.

For the expert/stakeholder responses as a whole, just under 20% chose 'level delivered by the forthcoming climate and energy framework for 2030'; however, this option was chosen by 45.6% of responses from business.

# Question 9: How should EU air pollution policy give priority to addressing either human health or the environment?

This question was asked on both questionnaires. Respondents were asked to choose **one** response.

#### **General public**

	Number of responses	% responses (1934)
Equal weight to both	1305	67.5%
Give priority to addressing human health impacts	385	19.9%
Give priority to addressing environmental impacts	219	11.3%
Other	7	0.4%
Don't know	18	0.9%

#### **Experts and stakeholders**

#### all expert/stakeholder responses

	Number of responses	% responses (371)
Equal weight to both	182	49.1%
Give priority to addressing human health impacts	114	30.7%
Give priority to addressing environmental impacts	19	5.1%
Other (Please describe below)	35	9.4%
Don't know	21	5.7%

#### business

	Number of responses	% responses (114)
Equal weight to both	42	36.8%
Give priority to addressing human health impacts	21	18.4%
Give priority to addressing environmental impacts	3	2.6%
Other (Please describe below)	29	25.4%
Don't know	19	16.7%

#### government

	Number of responses	% responses (42)
Equal weight to both	15	35.7%
Give priority to addressing human health impacts	25	59.5%
Give priority to addressing environmental impacts	0	0.0%
Other (Please describe below)	1	2.4%
Don't know	1	2.4%

#### non-governmental sector

	Number of responses	% responses (61)
Equal weight to both	37	60.7%
Give priority to addressing human health impacts	20	32.8%

Give priority to addressing environmental impacts	2	3.3%
Other (Please describe below)	2	3.3%
Don't know	0	0.0%

#### individual experts

	Number of responses	% responses (142)
Equal weight to both	85	59.9%
Give priority to addressing human health impacts	40	28.2%
Give priority to addressing environmental impacts	14	9.9%
Other (Please describe below)	3	2.1%
Don't know	0	0.0%

Just over two-thirds of general public responses and 49.1% of expert/stakeholder responses indicated that equal weight should be given to human health and environmental impacts. Almost 60% of government respondents, however, chose human health impacts as the priority.

A large share of business responses, 25.4%, chose 'other'.

# Question 11: Which of the following policy instruments should be given priority to achieve the environmental and health objectives in the period up to 2030?

This question was asked on the expert/stakeholder questionnaire. Respondents were asked to rank as many of the options as they wished in other of preference from 1 (most preferred) to 6 (least preferred). The average rank is displayed for each of the options, where score 1 is the highest possible and 6 is the lowest possible score.

#### **Experts and stakeholders**

All expert/stakeholder responses

	Average rank
Negotiate new emission reduction commitments for 2030 under the Gothenburg Protocol	3.11
which are aligned with the ambition level determined for the revised strategy.	
In the National Emissions Ceiling Directive, establish emission ceilings for the 2025-2030	3.07
period which are aligned with the ambition level determined for the revised strategy.	
In the Ambient Air Quality Directive, adapt the AQ limit values for the 2025-2030 period to	3.12
more stringent levels corresponding to the ambition level determined for the revised	
strategy.	
In EU legislation on emission sources, set more stringent emission requirements for	2.56
industrial activities, motor vehicles and other air pollution sources, where cost-effective.	
Use non-legislative methods, such as existing EU funding schemes, urban air quality	3.04
programmes, research and innovation actions or awareness raising (please specify in	
following question)	

#### business

	Average rank
Negotiate new emission reduction commitments for 2030 under the Gothenburg Protocol	2.80
which are aligned with the ambition level determined for the revised strategy.	
In the National Emissions Ceiling Directive, establish emission ceilings for the 2025-2030	3.28
period which are aligned with the ambition level determined for the revised strategy.	
In the Ambient Air Quality Directive, adapt the AQ limit values for the 2025-2030 period to	3.97
more stringent levels corresponding to the ambition level determined for the revised	
strategy.	
In EU legislation on emission sources, set more stringent emission requirements for	3.89
industrial activities, motor vehicles and other air pollution sources, where cost-effective.	
Use non-legislative methods, such as existing EU funding schemes, urban air quality	1.88
programmes, research and innovation actions or awareness raising (please specify in	
following question)	

#### government

	Average rank
Negotiate new emission reduction commitments for 2030 under the Gothenburg Protocol	3.68
which are aligned with the ambition level determined for the revised strategy.	
In the National Emissions Ceiling Directive, establish emission ceilings for the 2025-2030	2.90
period which are aligned with the ambition level determined for the revised strategy.	
In the Ambient Air Quality Directive, adapt the AQ limit values for the 2025-2030 period to	3.21
more stringent levels corresponding to the ambition level determined for the revised	
strategy.	
In EU legislation on emission sources, set more stringent emission requirements for	1.70
industrial activities, motor vehicles and other air pollution sources, where cost-effective.	
Use non-legislative methods, such as existing EU funding schemes, urban air quality	3.43

programmes, research and innovation actions or awareness raising (please specify in	
following question)	

#### non-governmental sector

	Average rank
Negotiate new emission reduction commitments for 2030 under the Gothenburg Protocol	3.08
which are aligned with the ambition level determined for the revised strategy.	
In the National Emissions Ceiling Directive, establish emission ceilings for the 2025-2030	2.63
period which are aligned with the ambition level determined for the revised strategy.	
In the Ambient Air Quality Directive, adapt the AQ limit values for the 2025-2030 period to	2.60
more stringent levels corresponding to the ambition level determined for the revised	
strategy.	
In EU legislation on emission sources, set more stringent emission requirements for	1.24
industrial activities, motor vehicles and other air pollution sources, where cost-effective.	
Use non-legislative methods, such as existing EU funding schemes, urban air quality	3.80
programmes, research and innovation actions or awareness raising (please specify in	
following question)	

#### individual experts

	Average rank
Negotiate new emission reduction commitments for 2030 under the Gothenburg Protocol	3.12
which are aligned with the ambition level determined for the revised strategy.	
In the National Emissions Ceiling Directive, establish emission ceilings for the 2025-2030	3.09
period which are aligned with the ambition level determined for the revised strategy.	
In the Ambient Air Quality Directive, adapt the AQ limit values for the 2025-2030 period to	2.71
more stringent levels corresponding to the ambition level determined for the revised	
strategy.	
In EU legislation on emission sources, set more stringent emission requirements for	2.43
industrial activities, motor vehicles and other air pollution sources, where cost-effective.	
Use non-legislative methods, such as existing EU funding schemes, urban air quality	3.42
programmes, research and innovation actions or awareness raising (please specify in	
following question)	

In the average ranking across all expert/stakeholder respondents, the five options received quite similar scores (averages from 2.56 to 3.12). The highest ranking (i.e. lowest average score) was given to 'EU legislation on emission sources'. This option came almost 0.5 points in front of the next, 'non-legislative methods'. This option for 'EU legislation on emission sources' received the highest ranking from government, NGO and individual expert responses. In contrast, business responses gave 'non-legislative methods' the highest ranking.

#### 6. Revising the Ambient Air Quality Directive

Question 13: Should the indicative limit value for PM2.5 of 20  $\mu$ g/m3 for 2020 be made mandatory? Respondents were asked to choose one response

#### **General public**

	Number of responses	% responses (1934)
Yes	1674	86.6%
No	49	2.5%
Don't know	211	10.9%

#### **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Yes	233	62.8%
No	88	23.7%
Don't know	50	13.5%

#### business

	Number of responses	% responses (114)
Yes	22	19.3%
No	63	55.3%
Don't know	29	25.4%

#### government

	Number of responses	% responses (42)
Yes	24	57.1%
No	7	16.7%
Don't know	11	26.2%

#### non-governmental sector

	Number of responses	% responses (61)
Yes	54	88.5%
No	2	3.3%
Don't know	5	8.2%

#### individual experts

	Number of responses	% responses (142)
Yes	125	88.0%
No	13	9.2%
Don't know	4	2.8%

Just over 86% of respondents to the general public questionnaire indicated that the indicative value for PM2.5 under the AAQD should be mandatory, along with just over 62% of respondents to the expert/stakeholder questionnaire. In the sub-groups for the expert/stakeholder questionnaire, a majority of government, NGO and individual expert responses were in favour, 55.3% of business responses were opposed.

# Question 14: Should the PM2.5 or other limit values in the AAQD be made more stringent to bring them closer to WHO guidance values? Respondents were asked to choose one response

#### **General public**

	Number of responses	% responses (1934)
No change	31	1.6%
Yes, review the limit values and bring them closer to WHO guidance values	1598	82.6%
Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	151	7.8%
Don't know	154	8.0%

#### **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
No change	68	18.3%
Yes, review the limit values and bring them closer to WHO guidance values	189	50.9%
Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	77	20.8%
Don't know	37	10.0%

#### business

	Number of responses	% responses (114)
No change	54	47.4%
Yes, review the limit values and bring them closer to WHO guidance values	18	15.8%
Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	19	16.7%
Don't know	23	20.2%

#### government

	Number of responses	% responses (42)
No change	3	7.1%
Yes, review the limit values and bring them closer to WHO	10	23.8%
guidance values		

Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	24	57.1%	
Don't know	5	11.9%	

#### non-governmental sector

	Number of responses	% responses (61)
No change	1	1.6%
Yes, review the limit values and bring them closer to WHO guidance values	52	85.3%
Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	5	8.2%
Don't know	3	4.9%

#### individual experts

	Number of responses	% responses (142)
No change	8	5.6%
Yes, review the limit values and bring them closer to WHO guidance values	103	72.5%
Bring AAQD limit values closer to WHO guidance values only in the future, once the EU has made further emissions reductions	26	18.3%
Don't know	5	3.5%

In the questionnaire for the general public, 82.6% of respondents were in favour of bringing PM2.5 and other AAQD limit values closer to WHO guidance values, along with 50.9% of responses to the experts/stakeholder questionnaire. This position was supported by a large majority of NGO and individual expert responses. However, 57.1% of government responses chose the option to move closer to WHO values 'once the EU has made further emissions reductions'. A large share of business responses, 47.4%, called for no change.

# Question 15: Should monitoring and regulation be introduced for black carbon/elemental carbon? Respondents were asked to choose **one** response

#### General public

	Number of responses	% responses (1934)
Yes, introduce monitoring requirement	349	18.1%
Yes, introduce non-binding target value (along with a monitoring requirement)	117	6.1%
Yes, introduce binding limit value (along with a monitoring requirement)	1363	70.5%
No	18	0.9%
Don't know	87	4.5%

#### **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Yes, introduce monitoring requirement	79	21.3%
Yes, introduce non-binding target value (along with a	55	14.8%
monitoring requirement)		
Yes, introduce binding limit value (along with a monitoring	148	39.9%
requirement)		
No	48	12.9%
Don't know	41	11.1%

#### business

	Number of responses	% responses (114)
Yes, introduce monitoring requirement	28	24.6%
Yes, introduce non-binding target value (along with a	9	7.9%
monitoring requirement)		
Yes, introduce binding limit value (along with a monitoring	10	8.8%
requirement)		
No	35	30.7%
Don't know	32	28.1%

#### government

	Number of responses	% responses(42)
Yes, introduce monitoring requirement	13	31.0%
Yes, introduce non-binding target value (along with a monitoring requirement)	16	38.1%
Yes, introduce binding limit value (along with a monitoring requirement)	7	16.7%

No	4	9.5%
Don't know	2	4.8%

#### non-governmental sector

	Number of responses	% responses (61)
Yes, introduce monitoring requirement	5	8.2%
Yes, introduce non-binding target value (along with a monitoring requirement)	4	6.6%
Yes, introduce binding limit value (along with a monitoring requirement)	47	77.1%
No	1	1.6%
Don't know	4	6.6%

#### individual

	Number of responses	% responses (142)
Yes, introduce monitoring requirement	29	20.4%
Yes, introduce non-binding target value (along with a monitoring requirement)	23	16.2%
Yes, introduce binding limit value (along with a monitoring requirement)	81	57.0%
No	6	4.2%
Don't know	3	2.1%

Over 70% of the general public responses and almost 40% of the expert/stakeholder responses called for a binding limit along with a monitoring requirement. This option was supported by a majority of NGO and individual expert responses. However, 38.1% of government representatives chose a non-binding target value, along with a monitoring requirement, and 31.0% only called for a monitoring requirement. Among business responses, over 30% were opposed to action in this area, and almost a similar number chose 'Don't know'.

## Question 17: Which binding limit values (if any) should the AAQD set for ozone?

This question was asked on the expert/stakeholder questionnaire. Respondents were asked to choose **one** response

## **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Replace the current ozone target values with binding limit values set at the same levels	41	11.1%
Replace the current ozone target values with binding limit values set at more stringent levels	151	40.7%
No change	120	32.4%
Don't know	59	15.9%

#### business

	Number of responses	% responses (114)
Replace the current ozone target values with binding limit values set at the same levels	7	6.1%
Replace the current ozone target values with binding limit values set at more stringent levels	10	8.8%
No change	58	50.9%
Don't know	39	34.2%

#### government

	Number of responses	% responses (42)
Replace the current ozone target values with binding limit values set at the same levels	5	11.9%
Replace the current ozone target values with binding limit	4	9.5%
values set at more stringent levels		
No change	26	61.9%
Don't know	7	16.7%

### non-governmental sector

	Number of responses	% responses (61)
Replace the current ozone target values with binding limit values set at the same levels	5	8.2%
Replace the current ozone target values with binding limit values set at more stringent levels	49	80.3%
No change	5	8.2%
Don't know	2	3.3%

#### individual experts

	Number of responses	% responses (142)
Replace the current ozone target values with binding limit values set at the same levels	23	16.2%
Replace the current ozone target values with binding limit values set at more stringent levels	83	58.5%
No change	26	18.3%
Don't know	10	7.0%

For the responses as a whole, the highest share (40.7%) indicated that current non-binding limit values for ozone should be replaced with binding limit values at more stringent levels. A majority of NGO and expert responses supported this position. A majority of business and government responses, however, chose 'no change'.

#### Question 20: Should zone-specific plans be consolidated into coordinated national plans?

This question was asked on both questionnaires. Respondents were asked to choose **one** response

#### **General public**

	Number of responses	% responses (1934)
Yes	1507	77.9%
No	94	4.9%
Don't know	333	17.2%

#### **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Yes	253	68.2%
No	43	11.6%
Don't know	75	20.2%

#### business

	Number of responses	% responses (114)
Yes	55	48.3%
No	12	10.5%
Don't know	47	41.2%

#### government

	Number of responses	% responses (42)
Yes	24	57.1%
No	13	31.0%
Don't know	5	11.9%

#### non-governmental sector

	Number of responses	% responses (61)
Yes	53	86.9%
No	1	1.6%
Don't know	7	11.5%

#### individual experts

	Number of responses	% responses (142)
Yes	114	80.3%
No	14	9.9%
Don't know	14	9.9%

Almost 80% of general public responses and almost 70% of expert/stakeholder responses called for the consolidation of zone-specific plans with coordinated national plans. This position was supported by a majority of government, NGO and individual expert responses, as well as 48.3% of business responses; however, 41.2% of business responses indicated 'Don't know', a high level.

# Question 21: Should cooperation among Member States be reinforced to better address transboundary pollution flows that affect local air quality problems?

This question was asked on both questionnaires. Respondents were asked to choose **one** response

## **General public**

	Number of responses	% responses(1934)
Yes	1854	95.9%
No	29	1.5%
Don't know	51	2.6%

## **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Yes, the Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution	195	52.6%
Yes, cooperation should be reinforced, but in other ways (pls specify in following question).	111	29.9%
No	14	3.8%
Don't know	51	13.6%

#### business

	Number of responses	% responses (114)
Yes, the Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution	42	36.8%
Yes, cooperation should be reinforced, but in other ways (pls specify in following question).	30	26.3%
No	3	2.6%
Don't know	39	34.2%

## government

	Number of responses	% responses (42)
Yes, the Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution	13	31.0%
Yes, cooperation should be reinforced, but in other ways (pls specify in following question).	20	47.6%
No	6	14.3%
Don't know	3	7.1%

#### non-governmental sector

	Number of responses	% responses (61)
Yes, the Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution	38	62.3%
Yes, cooperation should be reinforced, but in other ways (pls specify in following question).	19	31.2%
No	1	1.6%
Don't know	3	4.9%

#### individual experts

	Number of responses	% responses (142)
Yes, the Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution	98	69.0%
Yes, cooperation should be reinforced, but in other ways (pls specify in following question).	35	24.7%
No	4	2.8%
Don't know	5	3.5%

Almost 96% of general public responses, together with 52.6% of expert/stakeholder responses, indicated that 'Member States concerned should be legally obliged to prepare joint air quality plans in cases of significant transboundary pollution'. This option was supported by a majority of NGO and individual expert responses, and 36.8% of business responses. While 31.0% of government responses chose this option, 47.6% instead indicated that cooperation 'should be reinforced, but in other ways'.

## 7. Revising the National Emission Ceilings Directive (NECD)

## Question 23: Should national emission ceilings be adopted for black carbon/elemental carbon? Respondents were asked to choose one response

#### **General public**

	Number of responses*	% responses (1909)
Yes	1740	91.2%
No	56	2.9%
Don't know	113	5.9%
N/A	-	-

<sup>\*</sup>The response to the question was optional. 25 respondents chose not to respond.

#### **Experts and stakeholders**

all expert/stakeholder responses

	Number of responses	% responses (360)*
Yes	201	55.8%
No	114	31.7%
Don't know	45	12.5%

<sup>\*</sup>The question was optional. 360 out of the 371 respondents chose to respond to the question

#### business

	Number of responses	% responses (108)*
Yes	16	14.0%
No	70	61.4%
Don't know	22	19.3%

<sup>\*</sup>The question was optional. 108 out of the 114 respondents chose to respond to the question

### government

	Number of responses	% responses (40)
Yes	16	38.1%
No	19	45.2%
Don't know	5	11.9%

<sup>\*</sup>The question was optional. 40 out of the 42 respondents chose to respond to the question

#### non-governmental sector

	Number of responses	% responses (61)
Yes	55	90.2%
No	1	1.6%
Don't know	5	8.2%

	Number of responses	% responses (142)
Yes	109	76.8%
No	18	12.7%
Don't know	12	8.5%

In the general public questionnaire, 91.2% of respondents indicated that national emission ceilings should be adopted for black carbon/elemental; 55.8% of the expert/stakeholder respondents supported this option. Within the expert/stakeholder responses, majorities of NGO and individual expert responses agreed with the option; in contrast, 61.4% of business and 45.2% of government responses were opposed.

# Question 25: Which mechanisms for flexibility should be introduced into the NEC Directive management framework?

This question was asked only on the expert/stakeholder questionnaire. Respondents were asked to choose **one or more** responses

## **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Allowing Member State compliance for the Directive's ceilings to be measured on the basis of a multi-year average	143	38.5%
Allowing limited adjustments of Member State emission ceilings, under specific circumstances and after approval by the Commission	94	25.3%
Allowing limited adjustments of Member State emission inventories for compliance check, under specific circumstances and after approval by the Commission	141	38.0%
Other (please specify below)	19	5.1%
No flexibility mechanisms should be introduced	98	26.4%
Don't know	24	6.5%

#### business representatives

	Number of responses	% responses (114)
Allowing Member State compliance for the Directive's ceilings to be measured on the basis of a multi-year average	69	60.5%
Allowing limited adjustments of Member State emission ceilings, under specific circumstances and after approval by the Commission	59	51.8%
Allowing limited adjustments of Member State emission inventories for compliance check, under specific circumstances and after approval by the Commission	52	45.6%
Other (please specify below)	18	15.8%
No flexibility mechanisms should be introduced	6	5.3%
Don't know	9	7.9%

### government representatives

	Number of responses	% responses (42)
Allowing Member State compliance for the Directive's ceilings to be measured on the basis of a multi-year average	27	64.3%
Allowing limited adjustments of Member State emission ceilings, under specific circumstances and after approval by the Commission	8	19.1%

Allowing limited adjustments of Member State emission inventories for compliance check, under specific circumstances and after approval by the Commission	25	59.5%
Other (please specify below)	0	0.0%
No flexibility mechanisms should be introduced	1	2.4%
Don't know	4	9.5%

the non-governmental sector representatives

the non-governmental sector representatives		
	Number of responses	% responses (61)
Allowing Member State compliance for the Directive's	4	6.6%
ceilings to be measured on the basis of a multi-year		
average		$\mathcal{Y} \setminus \mathcal{Q}$
Allowing limited adjustments of Member State emission	8	13.1%
ceilings, under specific circumstances and after approval		
by the Commission		
Allowing limited adjustments of Member State emission	21	34.4%
inventories for compliance check, under specific		
circumstances and after approval by the Commission		
Other (please specify below)	1	1.6%
No flexibility mechanisms should be introduced	32	52.5%
Don't know	4	6.6%
No flexibility mechanisms should be introduced	32	52.5%

## individual experts

	Number of responses	% responses (142)
Allowing Member State compliance for the Directive's ceilings to be measured on the basis of a multi-year average	37	26.1%
Allowing limited adjustments of Member State emission ceilings, under specific circumstances and after approval by the Commission	18	12.7%
Allowing limited adjustments of Member State emission inventories for compliance check, under specific circumstances and after approval by the Commission	41	28.9%
Other (please specify below)	0	0.0%
No flexibility mechanisms should be introduced	57	40.1%
Don't know	6	4.2%

Across all expert/stakeholder responses, two options received about 38% each:

Allowing Member State compliance for the Directive's ceilings to be measured on the basis of a multi-year average

Allowing limited adjustments of Member State emission inventories for compliance check, under specific circumstances and after approval by the Commission

A majority of business and government responses supported these options.

Just over 26% indicated that no flexibility mechanisms should be introduced. This option was supported especially by NGOs (52.5% of responses) and individual experts (40.1% of that group); support among business and government, however, was under 6%.

A fourth option received just over 25%:

Allowing limited adjustments of Member State emission ceilings, under specific circumstances and after approval by the Commission

This option was chosen by just over one-half of the business responses, but less than 20% of the responses from the other groups.

## Question 26: Should coordination be required between the national and local levels in respect of emissions reduction measures and local air quality management?

Respondents were asked to choose **one** response

#### **General public**

	Number of responses	% responses (1934)
Yes	1854	95.9%
No	19	1.0%
Don't know	61	3.2%

#### **Experts and stakeholders**

#### All expert/stakeholder responses

	Number of responses	% responses (371)
Yes	317	85.4%
No	18	4.9%
Don't know	36	9.7%

#### business representatives

	Number of responses	% responses(114)
Yes	82	71.9%
No	8	7.0%
Don't know	24	21.1%

#### government representatives

	Number of responses	% responses (42)
Yes	35	83.3%
No	6	14.3%
Don't know	1	2.4%

#### non-governmental sector representatives

	Number of responses	% responses (61)
Yes	59	96.7%
No	1	1.6%
Don't know	1	1.6%

#### individual experts

	Number of responses	% responses (142)
Yes	131	92.3%
No	3	2.1%
Don't know	8	5.6%

Strong majorities – 95.9% of the responses to the general public questionnaire and 85.4% of those to the expert/stakeholders questionnaire – indicated that coordination should be required regarding emissions reduction measures and local air quality management. A strong majority of each of the expert/stakeholder sub-groups (over 70%) were in favour of coordination.

## 8. Addressing major air pollution sources

Questions in this topic area where only asked on the expert/stakeholder questionnaire.

# Question 28: Which additional measures should be taken to address air emissions from road transport?

Respondents were asked to **rank** as **many** of the options as they wished in order of preference from 1 (most preferred) to 8 (least preferred). The average rank is displayed for each of the options, where score 1 is the highest possible and 8 is the lowest possible score.

#### **Experts and stakeholders**

All expert/stakeholder responses

	Average Rank
Introduce with minimum delay the new test procedure to ensure that real world emissions	2.50
of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values	
Strengthen EU-wide requirements for in-service compliance with emissions standards, to	3.26
ensure that light-duty vehicles on European roads continue to produce low emissions over	
their lifetime	
Develop a new, more stringent standard to be mandatory for motor vehicles after 2020	3.79
Develop a supplementary more stringent standard, not mandatory, to be used by national	4.33
and local governments in a harmonised way wherever air quality exceeds EU standards (e.g.	
to establish low emission zones), or to establish incentives at MS level to increase	
penetration of cleaner vehicles	
Introduce standards to retrofit existing heavy duty vehicles (e.g. trucks, buses) to reduce	3.83
their air pollution emissions	
Introduce a mandatory road charging scheme for heavy duty vehicles that incorporates air	3.92
pollutant emissions ("eurovignette directive")	
Develop additional test-cycle components specific to the driving patterns of special purpose	4.68
urban vehicles (e.g. buses and refuse collection vehicles), to ensure that pollution control	
technologies operate effectively under real urban driving conditions	
No additional measures should be introduced	6.77

## business representatives

	Average Rank
Introduce with minimum delay the new test procedure to ensure that real world emissions	3.15
of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values	
Strengthen EU-wide requirements for in-service compliance with emissions standards, to	3.61
ensure that light-duty vehicles on European roads continue to produce low emissions over	
their lifetime	
Develop a new, more stringent standard to be mandatory for motor vehicles after 2020	4.38
Develop a supplementary more stringent standard, not mandatory, to be used by national	4.51
and local governments in a harmonised way wherever air quality exceeds EU standards (e.g.	
to establish low emission zones), or to establish incentives at MS level to increase	
penetration of cleaner vehicles	
Introduce standards to retrofit existing heavy duty vehicles (e.g. trucks, buses) to reduce	3.90
their air pollution emissions	

Introduce a mandatory road charging scheme for heavy duty vehicles that incorporates air	4.00
pollutant emissions ("eurovignette directive")	
Develop additional test-cycle components specific to the driving patterns of special purpose	5.12
urban vehicles (e.g. buses and refuse collection vehicles), to ensure that pollution control	
technologies operate effectively under real urban driving conditions	
No additional measures should be introduced	4.38

## government representatives

	Average Rank
Introduce with minimum delay the new test procedure to ensure that real world emissions	1.82
of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values	
Strengthen EU-wide requirements for in-service compliance with emissions standards, to	3.31
ensure that light-duty vehicles on European roads continue to produce low emissions over	
their lifetime	
Develop a new, more stringent standard to be mandatory for motor vehicles after 2020	3.58
Develop a supplementary more stringent standard, not mandatory, to be used by national	4.81
and local governments in a harmonised way wherever air quality exceeds EU standards (e.g.	
to establish low emission zones), or to establish incentives at MS level to increase	
penetration of cleaner vehicles	
Introduce standards to retrofit existing heavy duty vehicles (e.g. trucks, buses) to reduce	4.65
their air pollution emissions	
Introduce a mandatory road charging scheme for heavy duty vehicles that incorporates air	4.66
pollutant emissions ("eurovignette directive")	
Develop additional test-cycle components specific to the driving patterns of special purpose	4.23
urban vehicles (e.g. buses and refuse collection vehicles), to ensure that pollution control	
technologies operate effectively under real urban driving conditions	
No additional measures should be introduced	7.6

## non-governmental sector representatives

	Average Rank
Introduce with minimum delay the new test procedure to ensure that real world emissions	2.38
of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values	
Strengthen EU-wide requirements for in-service compliance with emissions standards, to	3.21
ensure that light-duty vehicles on European roads continue to produce low emissions over their lifetime	
Develop a new, more stringent standard to be mandatory for motor vehicles after 2020	3.19
Develop a supplementary more stringent standard, not mandatory, to be used by national	3.63
and local governments in a harmonised way wherever air quality exceeds EU standards (e.g.	
to establish low emission zones), or to establish incentives at MS level to increase	
penetration of cleaner vehicles	
Introduce standards to retrofit existing heavy duty vehicles (e.g. trucks, buses) to reduce	3.53
their air pollution emissions	
Introduce a mandatory road charging scheme for heavy duty vehicles that incorporates air	3.97
pollutant emissions ("eurovignette directive")	
Develop additional test-cycle components specific to the driving patterns of special purpose	5.03
urban vehicles (e.g. buses and refuse collection vehicles), to ensure that pollution control	
technologies operate effectively under real urban driving conditions	
No additional measures should be introduced	7.94

	Average Rank
Introduce with minimum delay the new test procedure to ensure that real world emissions	2.58
of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values	
Strengthen EU-wide requirements for in-service compliance with emissions standards, to	3.02
ensure that light-duty vehicles on European roads continue to produce low emissions over	
their lifetime	
Develop a new, more stringent standard to be mandatory for motor vehicles after 2020	3.78
Develop a supplementary more stringent standard, not mandatory, to be used by national	4.35
and local governments in a harmonised way wherever air quality exceeds EU standards (e.g.	
to establish low emission zones), or to establish incentives at MS level to increase	
penetration of cleaner vehicles	
Introduce standards to retrofit existing heavy duty vehicles (e.g. trucks, buses) to reduce	3.61
their air pollution emissions	
Introduce a mandatory road charging scheme for heavy duty vehicles that incorporates air	3.66
pollutant emissions ("eurovignette directive")	
Develop additional test-cycle components specific to the driving patterns of special purpose	4.49
urban vehicles (e.g. buses and refuse collection vehicles), to ensure that pollution control	
technologies operate effectively under real urban driving conditions	
No additional measures should be introduced	6.73

Across all respondents to the expert/stakeholder questionnaire, the highest rank (i.e. lowest score on average) was given to the option to 'Introduce with minimum delay the new test procedure to ensure that real world emissions of Euro 6 light duty diesel vehicles are as close as possible to the type approval limit values'. This option was given the highest rank by each sub-group.

The second-ranking option overall was to 'Strengthen EU-wide requirements for in-service compliance with emissions standards, to ensure that light-duty vehicles on European roads continue to produce low emissions over their lifetime'. This was the second-ranked option as an average average for each subgroup except NGOs, which gave the second place to 'Develop a new, more stringent standard to be mandatory for motor vehicles after 2020'.

It can be noted that 'No additional measures' received the lowest average ranking, both overall and also for government, NGO and individual expert responses; for business responses, this option was tied as third-lowest in rank.

#### Question 30: Which additional measures should be introduced for non-road machinery?

Respondents were asked to rank as many of the options as they wished in order of preference from 1 (most preferred) to 5 (least preferred). The average rank is displayed for each of the options, where score 1 is the highest possible and 5 is the lowest possible score.

## **Experts and stakeholders**

#### All expert/stakeholder responses

	Average Rank
Extend the scope of application of current Stage IV NRMM standards to additional power	2.62
classes and applications, including stationary applications	
Introduce as soon as possible a more stringent Stage V standard for non-road machinery,	2.08
aligned with the limit values of the most stringent Euro VI regulation for heavy duty road	
vehicles, which would further reduce especially PM emissions.	
Ensure that approval emission tests reflect the machinery's emissions in real world	2.38
circumstances	
Ensure that there are incentives for retrofitting and/or replacing older inland waterway	2.87
vessels' engines by newer and cleaner ones	
No additional measures should be introduced	4.19

#### business representatives

	Average Rank
Extend the scope of application of current Stage IV NRMM standards to additional power	3.11
classes and applications, including stationary applications	
Introduce as soon as possible a more stringent Stage V standard for non-road machinery,	2.85
aligned with the limit values of the most stringent Euro VI regulation for heavy duty road	
vehicles, which would further reduce especially PM emissions.	
Ensure that approval emission tests reflect the machinery's emissions in real world	2.33
circumstances	
Ensure that there are incentives for retrofitting and/or replacing older inland waterway	2.35
vessels' engines by newer and cleaner ones	
No additional measures should be introduced	2.29

## government representatives

	Average Rank
Extend the scope of application of current Stage IV NRMM standards to additional power	2.55
classes and applications, including stationary applications	
Introduce as soon as possible a more stringent Stage V standard for non-road machinery,	1.80
aligned with the limit values of the most stringent Euro VI regulation for heavy duty road	
vehicles, which would further reduce especially PM emissions.	
Ensure that approval emission tests reflect the machinery's emissions in real world	2.32
circumstances	
Ensure that there are incentives for retrofitting and/or replacing older inland waterway	3.30
vessels' engines by newer and cleaner ones	
No additional measures should be introduced	4.67

#### non-governmental sector representatives

	Average Rank
Extend the scope of application of current Stage IV NRMM standards to additional power	2.43
classes and applications, including stationary applications	
Introduce as soon as possible a more stringent Stage V standard for non-road machinery,	1.79

aligned with the limit values of the most stringent Euro VI regulation for heavy duty road vehicles, which would further reduce especially PM emissions.	
Ensure that approval emission tests reflect the machinery's emissions in real world circumstances	2.39
Ensure that there are incentives for retrofitting and/or replacing older inland waterway vessels' engines by newer and cleaner ones	3.00
No additional measures should be introduced	5.00

#### individual experts

	Average Rank
Extend the scope of application of current Stage IV NRMM standards to additional power	2.54
classes and applications, including stationary applications	
Introduce as soon as possible a more stringent Stage V standard for non-road machinery,	2.07
aligned with the limit values of the most stringent Euro VI regulation for heavy duty road	
vehicles, which would further reduce especially PM emissions.	
Ensure that approval emission tests reflect the machinery's emissions in real world	2.35
circumstances	
Ensure that there are incentives for retrofitting and/or replacing older inland waterway	2.88
vessels' engines by newer and cleaner ones	
No additional measures should be introduced	4.28
	<u>.</u>

For the expert/stakeholder respondents overall, the option that received the highest average ranking (i.e. lowest scored) was 'Introduce as soon as possible a more stringent Stage V standard for non-road machinery, aligned with the limit values of the most stringent Euro VI regulation for heavy duty road vehicles, which would further reduce especially PM emissions'. Government, NGO and individual expert respondents all gave this option the highest average ranking.

The second-highest ranking option for all respondents – and also for government, NGO and individual expert respondents – was: 'Ensure that approval emission tests reflect the machinery's emissions in real world circumstances'. This option was ranked second for business respondents.

'No additional measures' received the highest average ranking from business respondents, but the lowest average ranking from the other categories.

## Question 32: Which additional measures should be taken to address air emissions from the agricultural sector?

Respondents were asked to **rank as many of the options as they wished** in order of preference from 1 (most preferred) to 5 (least preferred). The average rank is displayed for each of the options, where score 1 is the highest possible and 5 is the lowest possible score.

## **Experts and stakeholders**

#### All expert/stakeholder responses

	Average Rank
Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving	2.24
flexibility to Member States on how these ceilings can best be reached	
Where cost effective, introduce new or revise existing EU legislation to establish EU-wide	2.33
specific rules for e.g. improved manure storage, management and spreading techniques	
Promote good practices in manure management and manure spreading in Member States	2.44
through support from the Rural Development Fund	
Introduce measures to ban or restrict the burning of agricultural waste	2.74
No additional measures should be introduced	4.35

#### business

	Average Rank
Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving	3.56
flexibility to Member States on how these ceilings can best be reached	
Where cost effective, introduce new or revise existing EU legislation to establish EU-wide	2.38
specific rules for e.g. improved manure storage, management and spreading techniques	
Promote good practices in manure management and manure spreading in Member States	1.63
through support from the Rural Development Fund	
Introduce measures to ban or restrict the burning of agricultural waste	2.57
No additional measures should be introduced	1.67

#### government

	Average Rank
Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving	2.63
flexibility to Member States on how these ceilings can best be reached	
Where cost effective, introduce new or revise existing EU legislation to establish EU-wide	1.89
specific rules for e.g. improved manure storage, management and spreading techniques	
Promote good practices in manure management and manure spreading in Member States	2.33
through support from the Rural Development Fund	
Introduce measures to ban or restrict the burning of agricultural waste	3.21
No additional measures should be introduced	4.67

## non-governmental sector

	Average Rank
Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving	1.63
flexibility to Member States on how these ceilings can best be reached	
Where cost effective, introduce new or revise existing EU legislation to establish EU-wide	2.39
specific rules for e.g. improved manure storage, management and spreading techniques	
Promote good practices in manure management and manure spreading in Member States	2.83
through support from the Rural Development Fund	
Introduce measures to ban or restrict the burning of agricultural waste	2.53
No additional measures should be introduced	5.00

individual experts	Average Rank
Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving	2.05
flexibility to Member States on how these ceilings can best be reached	
Where cost effective, introduce new or revise existing EU legislation to establish EU-wide	2.41
specific rules for e.g. improved manure storage, management and spreading techniques	
Promote good practices in manure management and manure spreading in Member States	2.55
through support from the Rural Development Fund	
Introduce measures to ban or restrict the burning of agricultural waste	2.72
No additional measures should be introduced	4.29

The highest average ranking option (i.e. lowest score) for the expert/stakeholder respondents overall was: 'Set tighter emission ceilings for ammonia for 2020 and 2030 in the NEC Directive, leaving flexibility to Member States on how these ceilings can best be reached'. This option received the highest ranking from NGO and individual expert responses.

The second highest average ranking went to the option for: 'Where cost effective, introduce new or revise existing EU legislation to establish EU-wide specific rules for e.g. improved manure storage, management and spreading techniques'. This option received the highest average ranking in government responses.

Business responses gave the highest average ranking to: 'Promote good practices in manure management and manure spreading in Member States through support from the Rural Development Fund', and this option received the third highest average ranking overall.

The second-highest ranking option among business responses was for 'No additional measures'. This option, however, received the lowest ranking for expert/stakeholder respondents overall, and also for government, NGO and individual expert responses.

# Question 34: Which additional measures should be taken to address air emissions from small and medium combustion installations (below 50 MW)?

Respondents were asked to choose **one or more** responses

## **Experts and stakeholders**

#### All expert/stakeholder responses

	Number of responses	% responses (371)
Extend in future the forthcoming harmonised limit values under the Ecodesign Directive (2009/125/EC) to control emissions from installations above the Ecodesign capacity threshold (please elaborate in question 35 up to which capacity level).	69	18.6%
Develop a supplementary and more stringent standard for installations below the Ecodesign capacity threshold for use in national and local measures such as fiscal incentives to be applied in zones that are in non-compliance with air quality limits	140	37.7%
Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)	141	38.0%
No additional measures should be introduced	30	8.1%
Other (please elaborate below)	21	5.7%
Don't know	56	15.1%

#### business representatives

	Number of responses	% responses (114)
Extend in future the forthcoming harmonised limit values under the Ecodesign Directive (2009/125/EC) to control emissions from installations above the Ecodesign capacity threshold (please elaborate in question 35 up to which capacity level).	5	4.4%
Develop a supplementary and more stringent standard for installations below the Ecodesign capacity threshold for use in national and local measures such as fiscal incentives to be applied in zones that are in non-compliance with air quality limits	8	7.0%
Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)	21	18.4%
No additional measures should be introduced	22	19.3%
Other (please elaborate below)	12	10.5%
Don't know	31	27.2%

government representatives		
	Number of responses	% responses (42)
Extend in future the forthcoming harmonised limit values	14	33.3%
under the Ecodesign Directive (2009/125/EC) to control		
emissions from installations above the Ecodesign capacity		
threshold (please elaborate in question 35 up to which		
capacity level).		
Develop a supplementary and more stringent standard for	19	45.2%
installations below the Ecodesign capacity threshold for		
use in national and local measures such as fiscal incentives		
to be applied in zones that are in non-compliance with air		
quality limits		
Regulate combustion installations above the Ecodesign	20	47.6%
capacity threshold but below the 50MW threshold set in		
the Industrial Emissions Directive (IED)		
No additional measures should be introduced	1	2.4%
Other (please elaborate below)	3	7.1%
Don't know	2	4.8%

the non-governmental sector representatives

	Number of responses	% responses (61)
Extend in future the forthcoming harmonised limit values under the Ecodesign Directive (2009/125/EC) to control emissions from installations above the Ecodesign capacity threshold (please elaborate in question 35 up to which capacity level).		11.5%
Develop a supplementary and more stringent standard for installations below the Ecodesign capacity threshold for use in national and local measures such as fiscal incentives to be applied in zones that are in non-compliance with air quality limits	42	68.9%
Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)	34	55.7%
No additional measures should be introduced	1	1.6%
Other (please elaborate below)	2	3.3%
Don't know	8	13.1%

individual experts

	Number of responses	% responses (142)
Extend in future the forthcoming harmonised limit values under the Ecodesign Directive (2009/125/EC) to control emissions from installations above the Ecodesign capacity threshold (please elaborate in question 35 up to which capacity level).	42	29.6%

Develop a supplementary and more stringent standard for installations below the Ecodesign capacity threshold for use in national and local measures such as fiscal incentives to be applied in zones that are in non-compliance with air quality limits	67	47.2%
Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)	62	43.7%
No additional measures should be introduced	6	4.2%
Other (please elaborate below)	3	2.1%
Don't know	14	9.9%

Two options for this topic were chosen by about 38% of expert/stakeholder responses. These options are:

Develop a supplementary and more stringent standard for installations below the Ecodesign capacity threshold for use in national and local measures such as fiscal incentives to be applied in zones that are in non-compliance with air quality limits.

Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED).

Among government, NGO and individual expert responses, these two options received the highest shares of responses, and received more or less similar scores.

About 33% of government responses and 29% of individual expert responses indicated a third option:

Extend in future the forthcoming harmonised limit values under the Ecodesign Directive (2009/125/EC) to control emissions from installations above the Ecodesign capacity threshold

For business responses, however, the highest share of responses went to 'Don't know' (27.2%), followed by 'No additional measures' (19.3%).

## Question 34a: Which measures should be introduced to control emissions from combustion installations above the Ecodesign threshold but below 50 MW?

This question was only asked to respondents who chose the option 'Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)' in Question 34.

Respondents were asked to choose **one or more** responses. The question was optional, and not all those invited to respond did so.

#### **Experts and stakeholders**

all expert/stakeholder responses (141)

(= ·= )		
	Number of responses	% responses (141)
A "full" permitting regime with EU-wide emission limit	54	38.3%
values		
A "light" permitting regime or registration regime with EU-	32	22.7%
wide emission limit values		
Product standards, applicable for new installations only	45	31.9%
EU-wide emission limit values or standards which are only	28	19.9%
mandatory in zones where air quality issues exist		
Other (please elaborate below)	8	5.7%
Don't know	5	3.6%

business representatives (21)

	Number of responses	% responses (21)
A "full" permitting regime with EU-wide emission limit values	3	14.3%
A "light" permitting regime or registration regime with EU- wide emission limit values	6	28.6%
Product standards, applicable for new installations only	14	66.7%
EU-wide emission limit values or standards which are only mandatory in zones where air quality issues exist	3	14.3%
Other (please elaborate below)	0	0.0%
Don't know	0	0.0%

government representatives (20)

	Number of responses	% responses (20)
A "full" permitting regime with EU-wide emission limit values	6	30.0%
A "light" permitting regime or registration regime with EU-wide emission limit values	12	60.0%
Product standards, applicable for new installations only	9	45.0%
EU-wide emission limit values or standards which are only mandatory in zones where air quality issues exist	3	15.0%
Other (please elaborate below)	2	10.0%
Don't know	1	5.0%

the non-governmental sector representatives (34)		
	Number of responses	% responses (34)
A "full" permitting regime with EU-wide emission limit values	17	50.0%
A "light" permitting regime or registration regime with EU- wide emission limit values	0	0.0%
Product standards, applicable for new installations only	2	5.9%
EU-wide emission limit values or standards which are only mandatory in zones where air quality issues exist	3	8.8%
Other (please elaborate below)	2	5.9%
Don't know	3	8.8%

#### individual experts (62)

	Number of responses	% responses (62)
A "full" permitting regime with EU-wide emission limit	28	45.2%
values		
A "light" permitting regime or registration regime with EU- wide emission limit values	12	19.4%
Product standards, applicable for new installations only	19	30.7%
EU-wide emission limit values or standards which are only mandatory in zones where air quality issues exist	18	29.0%
Other (please elaborate below)	3	4.8%
Don't know	1	1.6%

For the expert/stakeholder responses overall, the options receiving the highest share of choices were: 'A "full" permitting regime with EU-wide emission limit values' (38.3%) and 'Product standards, applicable for new installations only' (31.9%).

Responses from the sub-groups, however, differed rather strongly.

Two-thirds of business responses chose '*Product standards*', followed by 'a "light" permitting regime or registration regime' (28.6%).

Among government responses, 60% chose 'a "light" regime', and 45% indicated product standards.

One-half of NGO responses and 45% of individual expert responses chose 'a "full" permitting regime'.

## Question 36: Which additional measures should be taken to address air emissions from the shipping sector?

Respondents were asked to choose **one or more** responses. *Please note that the results for industry and the responses as a whole will be updated when revised results are received from the shipping industry.* 

## **Experts and stakeholders**

All expert/stakeholder responses

	Number of responses	% responses (371)
Promote the extension of the Sulphur Emission Control Areas to additional EU sea areas such as the Irish Sea, the Gulf of Biscay, the Mediterranean and/or the Black Sea provided that such a measure is cost-effective.	172	46.4%
Promote the designation of NOx Emission Control Areas in EU regional seas where cost-effective (those listed above and/or the Baltic and the North Sea including the English Channel) provided that such a measure is cost-effective.	162	43.7%
Introduce requirements for PM emission controls in EU regional seas where cost-effective	151	40.7%
Reduce air pollution and greenhouse gas emissions from ships in EU waters by setting speed restrictions.	107	28.8%
Aim for a reduction of total NOx emissions from shipping by retrofitting all vessels with NOx abatement equipment.	136	36.7%
Require continuous monitoring of the emissions of sulphur dioxide, NOx, particulate matter (fine dust) as it is practised on many industrial installations on land.	137	36.9%
Other (please elaborate below)	31	8.4%

## business representatives

	Number of responses	% responses (114)
Promote the extension of the Sulphur Emission Control Areas to additional EU sea areas such as the Irish Sea, the Gulf of Biscay, the Mediterranean and/or the Black Sea provided that such a measure is cost-effective.	27	23.7%
Promote the designation of NOx Emission Control Areas in EU regional seas where cost-effective (those listed above and/or the Baltic and the North Sea including the English Channel) provided that such a measure is cost-effective.	26	22.8%
Introduce requirements for PM emission controls in EU regional seas where cost-effective	22	19.3%
Reduce air pollution and greenhouse gas emissions from ships in EU waters by setting speed restrictions.	6	5.3%

Aim for a reduction of total NOx emissions from shipping by retrofitting all vessels with NOx abatement equipment.	18	15.8%
Require continuous monitoring of the emissions of sulphur dioxide, NOx, particulate matter (fine dust) as it is practised on many industrial installations on land.	20	17.5%
Other (please elaborate below)	17	14.9%

government representatives

	Number of responses	% responses (42)
Promote the extension of the Sulphur Emission Control Areas to additional EU sea areas such as the Irish Sea, the Gulf of Biscay, the Mediterranean and/or the Black Sea provided that such a measure is cost-effective.	25	59.5%
Promote the designation of NOx Emission Control Areas in EU regional seas where cost-effective (those listed above and/or the Baltic and the North Sea including the English Channel) provided that such a measure is cost-effective.	21	50.0%
Introduce requirements for PM emission controls in EU regional seas where cost-effective	19	45.2%
Reduce air pollution and greenhouse gas emissions from ships in EU waters by setting speed restrictions.	7	16.7%
Aim for a reduction of total NOx emissions from shipping by retrofitting all vessels with NOx abatement equipment.	15	35.7%
Require continuous monitoring of the emissions of sulphur dioxide, NOx, particulate matter (fine dust) as it is practised on many industrial installations on land.	6	14.3%
Other (please elaborate below)	6	14.3%

the non-governmental sector representatives

	Number of responses	% responses (61)
Promote the extension of the Sulphur Emission Control Areas to additional EU sea areas such as the Irish Sea, the Gulf of Biscay, the Mediterranean and/or the Black Sea provided that such a measure is cost-effective.	42	68.9%
Promote the designation of NOx Emission Control Areas in EU regional seas where cost-effective (those listed above and/or the Baltic and the North Sea including the English Channel) provided that such a measure is cost-effective.	39	63.9%
Introduce requirements for PM emission controls in EU regional seas where cost-effective	40	65.6%
Reduce air pollution and greenhouse gas emissions from ships in EU waters by setting speed restrictions.	36	59.0%
Aim for a reduction of total NOx emissions from shipping by retrofitting all vessels with NOx abatement equipment.	39	63.9%

Require continuous monitoring of the emissions of sulphur dioxide, NOx, particulate matter (fine dust) as it is practised on many industrial installations on land.	44	72.1%
Other (please elaborate below)	4	6.6%

#### individual experts

	Number of responses	% responses (142)
Promote the extension of the Sulphur Emission Control	75	52.8%
Areas to additional EU sea areas such as the Irish Sea, the		
Gulf of Biscay, the Mediterranean and/or the Black Sea		
provided that such a measure is cost-effective.		
Promote the designation of NOx Emission Control Areas in	71	50.0%
EU regional seas where cost-effective (those listed above		
and/or the Baltic and the North Sea including the English		
Channel) provided that such a measure is cost-effective.		
Introduce requirements for PM emission controls in EU	66	46.5%
regional seas where cost-effective		
Reduce air pollution and greenhouse gas emissions from	52	36.6%
ships in EU waters by setting speed restrictions.		
Aim for a reduction of total NOx emissions from shipping	60	42.3%
by retrofitting all vessels with NOx abatement equipment.		
Require continuous monitoring of the emissions of sulphur	64	45.1%
dioxide, NOx, particulate matter (fine dust) as it is		
practised on many industrial installations on land.		
Other (please elaborate below)	4	2.8%

For the expert/stakeholder responses as a whole, the six options (i.e. not including 'other') all received between 28.8% and 46.6%. A majority of NGO responses chose all six of these options.

Two options were chosen by at least 50% of government and individual expert responses:

Promote the extension of the Sulphur Emission Control Areas to additional EU sea areas such as the Irish Sea, the Gulf of Biscay, the Mediterranean and/or the Black Sea provided that such a measure is cost-effective.

Promote the designation of NOx Emission Control Areas in EU regional seas where cost-effective (those listed above and/or the Baltic and the North Sea including the English Channel) provided that such a measure is cost-effective.

None of the options received more than 24% of business responses.