



Reports of Cases

JUDGMENT OF THE COURT (First Chamber)

26 June 2019*

(Reference for a preliminary ruling — Directive 2008/50/EC — Articles 6, 7, 13 and 23 — Annex III — Assessment of air quality — Criteria for determining whether the nitrogen dioxide limit values have been exceeded — Measurements using fixed sampling points — Choice of appropriate sites — Interpretation of the values measured at the sampling points — Obligations of the Member States — Judicial review — Intensity of the review — Power to issue directions)

In Case C-723/17,

REQUEST for a preliminary ruling under Article 267 TFEU from the *Nederlandstalige rechtbank van eerste aanleg Brussel* (Dutch-language Court of First Instance, Brussels, Belgium), made by decision of 15 December 2017, received at the Court on 29 December 2017, in the proceedings

Lies Craeynest,

Cristina Lopez Devaux,

Frédéric Mertens,

Stefan Vandermeulen,

Karin De Schepper,

ClientEarth VZW

v

Brussels Hoofdstedelijk Gewest,

Brussels Instituut voor Milieubeheer,

intervening party:

Belgische Staat,

THE COURT (First Chamber),

composed of J.-C. Bonichot (Rapporteur), President of the Chamber, C. Toader, A. Rosas, L. Bay Larsen and M. Safjan, Judges,

Advocate General: J. Kokott,

* Language of the case: Dutch.

Registrar: M. Ferreira, Principal Administrator,

having regard to the written procedure and further to the hearing on 10 January 2019,

after considering the observations submitted on behalf of:

- Ms Craeynest, Ms Lopez Devaux, Mr Mertens, Mr Vandermeulen, Ms De Schepper and ClientEarth VZW, by T. Malfait and A. Croes, advocaten,
- the Brussels Hoofdstedelijk Gewest and the Brussels Instituut voor Milieubeheer, by G. Verhelst and B. Van Weerd, advocaten, and by I.-S. Brouhns, avocat,
- the Czech Government, by M. Smolek, J. Vlácil and L. Dvořáková, acting as Agents,
- the Netherlands Government, by M.K. Bulterman and A.M. de Ree, acting as Agents,
- the European Commission, by E. Manhaeve and by K. Petersen, acting as Agents,

after hearing the Opinion of the Advocate General at the sitting on 28 February 2019,

gives the following

Judgment

- 1 This request for a preliminary ruling concerns the interpretation of Article 4(3) TEU and the second subparagraph of Article 19(1) TEU, read in conjunction with the third paragraph of Article 288 TFEU, and of Articles 6, 7, 13 and 23 of and Annex III to Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ 2008 L 152, p. 1).
- 2 The request has been made in the context of a dispute between Ms Lies Craeynest, Ms Cristina Lopez Devaux, Mr Frédéric Mertens, Mr Stefan Vandermeulen, Ms Karin De Schepper and ClientEarth VZW, on the one hand, and the Brussels Hoofdstedelijk Gewest (Brussels Capital Region, Belgium) and the Brussels Instituut voor Milieubeheer (Brussels Institute for Environmental Management, Belgium), on the other, regarding the obligation to develop an air quality plan for the Brussels zone (Belgium) and to install the sampling points legally required to monitor air quality.

Legal context

- 3 Recitals 2, 5 to 7 and 14 of Directive 2008/50 state:
 - ‘(2) In order to protect human health and the environment as a whole, it is particularly important to combat emissions of pollutants at source and to identify and implement the most effective emission reduction measures at local, national and Community level. Therefore, emissions of harmful air pollutants should be avoided, prevented or reduced and appropriate objectives set for ambient air quality taking into account relevant World Health Organisation standards, guidelines and programmes.

...

- (5) A common approach to the assessment of ambient air quality should be followed according to common assessment criteria. When assessing ambient air quality, account should be taken of the size of populations and ecosystems exposed to air pollution. It is therefore appropriate to classify the territory of each Member State into zones or agglomerations reflecting the population density.
- (6) Where possible modelling techniques should be applied to enable point data to be interpreted in terms of geographical distribution of concentration. This could serve as a basis for calculating the collective exposure of the population living in the area.
- (7) In order to ensure that the information collected on air pollution is sufficiently representative and comparable across the Community, it is important that standardised measurement techniques and common criteria for the number and location of measuring stations are used for the assessment of ambient air quality. Techniques other than measurements can be used to assess ambient air quality and it is therefore necessary to define criteria for the use and required accuracy of such techniques.

...

- (14) Fixed measurements should be mandatory in zones and agglomerations where the long-term objectives for ozone or the assessment thresholds for other pollutants are exceeded. Information from fixed measurements may be supplemented by modelling techniques and/or indicative measurements to enable point data to be interpreted in terms of geographical distribution of concentrations. The use of supplementary techniques of assessment should also allow for reduction of the required minimum number of fixed sampling points.'

4 Article 1 of Directive 2008/50 provides:

'This Directive lays down measures aimed at the following:

1. defining and establishing objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole;
2. assessing the ambient air quality in Member States on the basis of common methods and criteria;
3. obtaining information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and Community measures;

...'

5 Article 2 of that directive provides:

'For the purposes of this Directive:

...

3. "level" shall mean the concentration of a pollutant in ambient air or the deposition thereof on surfaces in a given time;
4. "assessment" shall mean any method used to measure, calculate, predict or estimate levels;

5. “limit value” shall mean a level fixed on the basis of scientific knowledge, with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained;

...

17. “agglomeration” shall mean a zone that is a conurbation with a population in excess of 250 000 inhabitants or, where the population is 250 000 inhabitants or less, with a given population density per km² to be established by the Member States;

...

20. “average exposure indicator” shall mean an average level determined on the basis of measurements at urban background locations throughout the territory of a Member State and which reflects population exposure. It is used to calculate the national exposure reduction target and the exposure concentration obligation;

...

23. “urban background locations” shall mean places in urban areas where levels are representative of the exposure of the general urban population;

24. “oxides of nitrogen” shall mean the sum of the volume mixing ratio (ppbv) of nitrogen monoxide (nitric oxide) and nitrogen dioxide expressed in units of mass concentration of nitrogen dioxide (µg/m³);

25. “fixed measurements” shall mean measurements taken at fixed sites, either continuously or by random sampling, to determine the levels in accordance with the relevant data quality objectives;

...’

6 Article 4 of Directive 2008/50 provides:

‘Member States shall establish zones and agglomerations throughout their territory. Air quality assessment and air quality management shall be carried out in all zones and agglomerations.’

7 Under Article 5(1) of the directive:

‘The upper and lower assessment thresholds specified in Section A of Annex II shall apply to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM₁₀ and PM_{2,5}), lead, benzene and carbon monoxide.

Each zone and agglomeration shall be classified in relation to those assessment thresholds.’

8 Article 6 of the directive, entitled ‘Assessment criteria’, is worded as follows:

‘1. Member States shall assess ambient air quality with respect to the pollutants referred to in Article 5 in all their zones and agglomerations, in accordance with the criteria laid down in paragraphs 2, 3 and 4 of this Article and in accordance with the criteria laid down in Annex III.

2. In all zones and agglomerations where the level of pollutants referred to in paragraph 1 exceeds the upper assessment threshold established for those pollutants, fixed measurements shall be used to assess the ambient air quality. Those fixed measurements may be supplemented by modelling techniques and/or indicative measurements to provide adequate information on the spatial distribution of the ambient air quality.

3. In all zones and agglomerations where the level of pollutants referred to in paragraph 1 is below the upper assessment threshold established for those pollutants, a combination of fixed measurements and modelling techniques and/or indicative measurements may be used to assess the ambient air quality.

4. In all zones and agglomerations where the level of pollutants referred to in paragraph 1 is below the lower assessment threshold established for those pollutants, modelling techniques or objective-estimation techniques or both shall be sufficient for the assessment of the ambient air quality.

...'

9 Article 7 of the same directive, headed 'Sampling points', provides:

'1. The location of sampling points for the measurement of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM₁₀, PM_{2,5}), lead, benzene and carbon monoxide in ambient air shall be determined using the criteria listed in Annex III.

2. In each zone or agglomeration where fixed measurements are the sole source of information for assessing air quality, the number of sampling points for each relevant pollutant shall not be less than the minimum number of sampling points specified in Section A of Annex V.

3. For zones and agglomerations within which information from fixed measurement sampling points is supplemented by information from modelling and/or indicative measurement, the total number of sampling points specified in Section A of Annex V may be reduced by up to 50%, provided that the following conditions are met:

- (a) the supplementary methods provide sufficient information for the assessment of air quality with regard to limit values or alert thresholds, as well as adequate information for the public;
- (b) the number of sampling points to be installed and the spatial resolution of other techniques are sufficient for the concentration of the relevant pollutant to be established in accordance with the data quality objectives specified in Section A of Annex I and enable assessment results to meet the criteria specified in Section B of Annex I.

The results of modelling and/or indicative measurement shall be taken into account for the assessment of air quality with respect to the limit values.

4. The application in Member States of the criteria for selecting sampling points shall be monitored by the Commission so as to facilitate the harmonised application of those criteria throughout the European Union.'

10 Article 13 of Directive 2008/50, entitled 'Limit values and alert thresholds for the protection of human health', provides in paragraph 1:

'Member States shall ensure that, throughout their zones and agglomerations, levels of sulphur dioxide, PM₁₀, lead, and carbon monoxide in ambient air do not exceed the limit values laid down in Annex XI.

In respect of nitrogen dioxide and benzene, the limit values specified in Annex XI may not be exceeded from the dates specified therein.

Compliance with these requirements shall be assessed in accordance with Annex III.

...'

11 Article 15 of that directive provides:

'...

2. Member States shall ensure that the average exposure indicator for the year 2015 established in accordance with Section A of Annex XIV does not exceed the exposure concentration obligation laid down in Section C of that Annex.

...

4. Each Member State shall, in accordance with Annex III, ensure that the distribution and the number of sampling points on which the average exposure indicator for $PM_{2.5}$ is based reflect the general population exposure adequately. The number of sampling points shall be no less than that determined by application of Section B of Annex V.'

12 Article 23(1) of Directive 2008/50 states:

'Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit value or target value, plus any relevant margin of tolerance in each case, Member States shall ensure that air quality plans are established for those zones and agglomerations in order to achieve the related limit value or target value specified in Annexes XI and XIV.

In the event of exceedances of those limit values for which the attainment deadline is already expired, the air quality plans shall set out appropriate measures, so that the exceedance period can be kept as short as possible. The air quality plans may additionally include specific measures aiming at the protection of sensitive population groups, including children.

Those air quality plans shall incorporate at least the information listed in Section A of Annex XV and may include measures pursuant to Article 24. Those plans shall be communicated to the Commission without delay, but no later than 2 years after the end of the year the first exceedance was observed.

...'

13 Annex III to Directive 2008/50 deals with the 'assessment of ambient air quality and location of sampling points for the measurement of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM_{10} and $PM_{2.5}$), lead, benzene and carbon monoxide in ambient air'. Section A thereof, entitled 'General', provides in paragraph 1:

'Ambient air quality shall be assessed in all zones and agglomerations in accordance with the following criteria:

1. Ambient air quality shall be assessed at all locations except those listed in paragraph 2, in accordance with the criteria established by Sections B and C for the location of sampling points for fixed measurement. The principles established by Sections B and C shall also apply in so far as they are relevant in identifying the specific locations in which concentration of the relevant pollutants are established where ambient air quality is assessed by indicative measurement or modelling.'

14 Annex III, Section B, of that directive, entitled ‘Macroscale siting of sampling points’, provides in paragraph 1, entitled ‘Protection of human health’:

‘(a) Sampling points directed at the protection of human health shall be sited in such a way as to provide data on the following:

- the areas within zones and agglomerations where the highest concentrations occur to which the population is likely to be directly or indirectly exposed for a period which is significant in relation to the averaging period of the limit value(s),
- levels in other areas within the zones and agglomerations which are representative of the exposure of the general population,

(b) Sampling points shall in general be sited in such a way as to avoid measuring very small micro-environments in their immediate vicinity, which means that a sampling point must be sited in such a way that the air sampled is representative of air quality for a street segment no less than 100 m length at traffic-orientated sites and at least 250 m × 250 m at industrial sites, where feasible;

(c) Urban background locations shall be located so that their pollution level is influenced by the integrated contribution from all sources upwind of the station. The pollution level should not be dominated by a single source unless such a situation is typical for a larger urban area. Those sampling points shall, as a general rule, be representative for several square kilometres;

...

(f) Sampling points shall, where possible, also be representative of similar locations not in their immediate vicinity;

...’

15 Section C of Annex III to Directive 2008/50 provides criteria for the microscale siting of sampling points, such as the distance between the sampling probe and the ground, its location in relation to streets and junctions and other technical requirements.

16 Section D of Annex III to the directive, entitled ‘Documentation and review of site selection’, states:

‘The site-selection procedures shall be fully documented at the classification stage by such means as compass-point photographs of the surrounding area and a detailed map. Sites shall be reviewed at regular intervals with repeated documentation to ensure that selection criteria remain valid over time.’

17 Annex V to that directive lays down the ‘criteria for determining minimum numbers of sampling points for fixed measurement of concentrations of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM₁₀, PM_{2.5}), lead, benzene and carbon monoxide in ambient air’. Section A of that annex provides, *inter alia*:

‘For nitrogen dioxide, particulate matter, benzene and carbon monoxide: to include at least one urban background monitoring station and one traffic-orientated station provided this does not increase the number of sampling points. For these pollutants, the total number of urban background stations and the total number of traffic oriented stations in a Member State required under Section A(1) shall not differ by more than a factor of 2. Sampling points with exceedances of the limit value for PM₁₀ within the last 3 years shall be maintained, unless a relocation is necessary owing to special circumstances, in particular spatial development.’

- 18 Annex XI to the directive is entitled ‘Limit values for the protection of human health’. Section B thereof sets limit values per pollutant according to its concentration in ambient air measured in different time periods. As regards nitrogen dioxide, this annex provides, in particular:

Averaging Period	Limit value	Margin of tolerance	Date by which limit value is to be met
One hour	200 µg/m ³ , not to be exceeded more than 18 times a calendar year	... 0% by 1 January 2010	1 January 2010
Calendar year	40 µg/m ³	... 0% by 1 January 2010	1 January 2010

- 19 Annex XV to Directive 2008/50 sets out the ‘information to be included in the local, regional or national air quality plans for improvement in ambient air quality’. Among the ‘information to be provided under Article 23 (air quality plans)’, listed in Section A of that annex, the ‘localisation of excess pollution’ is mentioned, which includes information on the region, the city and the ‘measuring station (map, geographical coordinates)’. In addition, among the general information to be provided is an ‘estimate of the polluted area (km²) and of the population exposed to the pollution’.

The dispute in the main proceedings and the questions referred for a preliminary ruling

- 20 It is apparent from the order for reference that the Brussels Capital Region is a zone subject to air quality assessment and air quality management within the meaning of Article 4 of Directive 2008/50. Air quality is monitored using sampling points. According to the *Nederlandstalige rechtbank van eerste aanleg Brussel* (Dutch-language Court of First Instance, Brussels, Belgium), the latter must be located, in accordance with Article 7(1) of Directive 2008/50, read in conjunction with Annex III, Section B, paragraph 1(a) thereto, in such a way as to provide, inter alia, data on ‘the areas within zones and agglomerations where the highest concentrations’ of the pollutants covered by that directive ‘occur’.
- 21 Among the applicants in the main proceedings are four inhabitants of the Brussels Capital Region who are concerned about the quality of the air in their environment. The fifth applicant in the main proceedings is a non-profit-making association governed by English law with a centre of activities in Belgium. One of the objects of that association is to protect the environment.
- 22 By their action, brought on 21 September 2016, the applicants in the main proceedings asked the referring court to declare that the abovementioned requirement was not complied with in the Brussels Capital Region and to order the latter to establish sampling points at appropriate locations, such as a specific street or junction.
- 23 The referring court considers that the rules laid down in Directive 2008/50 on the identification or delimitation of ‘areas within zones and agglomerations where the highest concentrations’ of pollutants ‘occur’ confer a margin of discretion on the competent authorities. Consequently, it is not certain whether a court may verify that the sampling points have been correctly located and, if necessary, order those authorities to establish such points in areas that the court itself would determine.
- 24 The applicants in the main proceedings consider, for their part, that the limit value laid down in Directive 2008/50 for nitrogen dioxide since 1 January 2010 has actually been exceeded in the Brussels Capital Region. For this reason, an air quality plan, as provided for in Article 23 of that directive, should be drawn up by the competent authorities.

- 25 According to the referring court, if the limit values laid down in Directive 2008/50 are exceeded, the Member States are required to draw up, in accordance with Article 23(1) of that directive, an air quality plan which provides for appropriate measures to ensure that the period in which those values are exceeded is as short as possible. As is apparent from the judgment of 19 November 2014, *ClientEarth* (C-404/13, EU:C:2014:2382), compliance with that obligation may be subject to judicial review and the court seised has the power to order the competent authorities to draw up such a plan.
- 26 That court also notes that the parties to the main proceedings do not dispute the values measured at the various sampling points located in the Brussels Capital Region. On the other hand, they disagree on the interpretation of Article 13(1) of Directive 2008/50, from which it follows that the concentration of nitrogen dioxide in the air must not exceed an annual average of 40 µg/m³ ‘throughout ... zones and agglomerations’ of a Member State.
- 27 The wording of that provision does not make it possible to decide whether, in the Brussels Capital Region, that level was in fact exceeded. It is true that the value of 40 µg/m³ of nitrogen dioxide was exceeded at various sampling points. However, the nitrogen dioxide concentration would remain below the annual average of 40 µg/m³ if it were determined solely on the basis of the average of the values measured at all sampling points located in that region.
- 28 The applicants in the main proceedings consider that it follows from the wording of Article 13(1) of Directive 2008/50 that the limit values may not be exceeded in any area of a zone, within the meaning of Article 4 of the directive. On the other hand, the Brussels Capital Region and the Brussels Institute for Environmental Management consider that the air quality should be assessed for a zone or agglomeration as a whole.
- 29 In those circumstances, the *Nederlandstalige rechtbank van eerste aanleg Brussel* (Dutch-language Court of First Instance, Brussels) decided to stay the proceedings and to refer the following questions to the Court for a preliminary ruling:
- ‘(1) Should Article 4(3) and the second subparagraph of Article 19(1) [TEU], read in conjunction with the third paragraph of Article 288 [TFEU], and Articles 6 and 7 of Directive [2008/50] be interpreted as meaning that, when it is alleged that a Member State has not sited the sampling points in a zone in accordance with the criteria set out in paragraph 1(a) of Section B of Annex III to Directive 2008/50, it is for the national courts, on application by individuals who are directly affected by the exceedance of the limit values referred to in Article 13(1) of that directive, to examine whether the sampling points were established in accordance with those criteria and, if they were not, to take all necessary measures in respect of the national authority, such as an order, with a view to ensuring that the sampling points are sited in accordance with those criteria?
- (2) Is a limit value within the meaning of Article 13(1) and Article 23(1) of Directive [2008/50] exceeded in the case where an exceedance of a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been established on the basis of the measurement results from one single sampling point within the meaning of Article 7 of that directive, or does such an exceedance occur only when this becomes apparent from the average of the measurement results from all sampling points in a particular zone within the meaning of Directive 2008/50?’

Consideration of the questions referred

The first question

- 30 By its first question, the referring court asks whether Article 4(3) TEU and the second subparagraph of Article 19(1) TEU, read in conjunction with the third paragraph of Article 288 TFEU, and Articles 6 and 7 of Directive 2008/50, must be interpreted as meaning that it is for a national court, hearing an application submitted for that purpose by individuals directly affected by the exceedance of the limit values referred to in Article 13(1) of that directive, to verify whether the sampling points located in a particular zone have been established in accordance with the criteria laid down in paragraph 1(a) of Section B of Annex III to the directive and, if they were not, to take all necessary measures in respect of the competent national authority, such as an order, with a view to ensuring that the sampling points are located in accordance with those criteria.
- 31 According to settled case-law, under the principle of sincere cooperation laid down in Article 4(3) TEU, it is for the courts of the Member States to ensure legal protection of an individual's rights under EU law. In addition, the second subparagraph of Article 19(1) TEU requires Member States to provide remedies sufficient to ensure effective legal protection in the fields covered by EU law (judgment of 19 November 2014, *ClientEarth*, C-404/13, EU:C:2014:2382, paragraph 52).
- 32 In addition, the Court has noted on numerous occasions that it is incompatible with the binding effect that Article 288 TFEU ascribes to the directive to exclude, in principle, the possibility of the obligation imposed by that directive being relied on by the persons concerned. That consideration applies particularly in respect of a directive whose objective is to control and reduce atmospheric pollution and which is designed, therefore, to protect public health (judgments of 25 July 2008, *Janecek*, C-237/07, EU:C:2008:447, paragraph 37, and of 19 November 2014, *ClientEarth*, C-404/13, EU:C:2014:2382, paragraph 55).
- 33 As the Advocate General pointed out, in essence, in point 53 of her Opinion, the rules laid down in Directive 2008/50 on ambient air quality put into concrete terms the EU's obligations concerning environmental protection and the protection of public health, which stem, inter alia, from Article 3(3) TEU and Article 191(1) and (2) TFEU, according to which Union policy on the environment is to aim at a high level of protection, taking into account the diversity of situations in the various regions of the European Union, and is to be based, inter alia, on the precautionary principle and on the principle that preventive action should be taken (judgment of 13 July 2017, *Túrkevei Tejtermelő Kft.*, C-129/16, EU:C:2017:547).
- 34 In particular, where the EU legislature has, by directive, imposed on Member States the obligation to pursue a particular course of action, the effectiveness of such action would be weakened if individuals were prevented from relying on it before their national courts, and if the latter were prevented from taking it into consideration as an element of EU law in deciding whether the national legislature, in exercising the choice open to it as to the form and methods for implementation, has kept within the limits of its discretion set by the directive (judgment of 24 October 1996, *Kraaijeveld and Others*, C-72/95, EU:C:1996:404, paragraph 56).
- 35 Directive 2008/50 lays down detailed rules for the use and location of sampling points to measure air quality in zones and agglomerations established by the Member States in accordance with Article 4 of the directive.
- 36 Article 6 of Directive 2008/50 lays down different technical methods that Member States are required to use to assess air quality in zones and agglomerations. In accordance with Article 6(2) to (4), in all zones and agglomerations where the level of pollutants referred to in Article 5 of the directive exceeds the upper assessment threshold set out in Section A of Annex II thereto, the ambient air quality is to

be assessed using fixed measurements, which may be supplemented by modelling techniques and indicative measurements. Below the upper assessment threshold, a combination of fixed measurements, on the one hand, and modelling techniques and indicative measurements, on the other hand, is permitted. Only when the pollution level does not reach the lower assessment threshold, also set out in Section A of Annex II to Directive 2008/50, can air quality be monitored using only modelling or objective-estimation techniques.

- 37 Article 7 of Directive 2008/50 concerns the location and minimum number of sampling points. In accordance with paragraph 1 thereof, the location of sampling points for the measurement of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM₁₀ and PM_{2,5}), lead, benzene and carbon monoxide in ambient air is to be determined in accordance with the criteria set out in Annex III to that directive.
- 38 Section B of that annex sets out the criteria for the ‘macroscale siting’ of sampling points. It follows from paragraph 1(a) thereof that sampling points directed at the protection of human health must be sited in such a way as to provide data on air quality (i) in the areas within zones and agglomerations where the highest concentrations of the pollutants in question occur to which the population is likely to be directly or indirectly exposed for a period which is significant in relation to the period under consideration for the limit values concerned and (ii) in other areas within the zones and agglomerations which are representative of the exposure of the general population. Paragraph 1(f) of Section B of that annex specifies that sampling points are, where possible, also to be representative of similar locations not in their immediate vicinity.
- 39 Thus, the provisions of paragraph 1(a) and (f) of Section B of Annex III to Directive 2008/50 require sampling points to provide representative data for locations in a zone or agglomeration characterised by a certain level of pollution.
- 40 It is apparent from paragraph 1(b) of Section B of Annex III to that directive that sampling points must be sited in such a way as to avoid measuring very small ‘micro-environments’ in their immediate vicinity and that the air sampled must, as far as possible, be representative of the air quality in an area of a certain size. That provision requires that the measurements reflect air quality, at traffic-orientated sites, for a street segment no less than 100 m in length and, at industrial sites, for a plot of at least 250 m × 250 m.
- 41 In addition, the rules provided for in Annex V to Directive 2008/50, to which Article 7(2) and (3) of that directive refers, make it possible to determine the minimum number of sampling points in a zone or agglomeration and the ratio between the points for measuring background pollution and those for measuring traffic-based pollution.
- 42 Some of the provisions of Directive 2008/50 referred to in the preceding paragraphs of this judgment contain clear, precise and unconditional obligations, which means that they can be invoked by individuals against the State.
- 43 This is the case, in particular, with regard to the obligation to establish sampling points in such a way that they provide information on the pollution of the most polluted locations, laid down in the first indent of paragraph 1(a) of Section B of Annex III to Directive 2008/50, and the obligation to establish at least the minimum number of sampling points set out in Annex V to that directive. It is for the national courts to verify whether those obligations have been complied with.
- 44 It is indeed true that, depending on the local situation in a zone or agglomeration, several sites may meet the criteria laid down in paragraph 1(a) of Section B of Annex III to Directive 2008/50. Therefore, it is the responsibility of the competent national authorities to choose, within the limits of their discretionary powers, the actual location of the sampling points.

- 45 However, the existence of such discretionary powers does not in any way mean that the decisions taken by those authorities in that connection are exempt from judicial review, in particular in order to verify whether they have exceeded the limits set for the exercise of those powers (see, to that effect, judgments of 24 October 1996, *Kraaijeveld and Others*, C-72/95, EU:C:1996:404, paragraph 59, and of 25 July 2008, *Janecek*, C-237/07, EU:C:2008:447, paragraph 46).
- 46 Moreover, despite the absence of rules of EU law on procedures for bringing actions before national courts, and in order to determine the rigour of judicial review of national decisions adopted pursuant to an act of EU law, it is necessary to take into account the purpose of the act and to ensure that its effectiveness is not undermined (see, to that effect, judgments of 18 June 2002, *HI*, C-92/00, EU:C:2002:379, paragraph 59, and of 11 December 2014, *Croce Amica One Italia*, C-440/13, EU:C:2014:2435, paragraph 40).
- 47 With regard to Directive 2008/50, the location of sampling points is central to the air quality assessment and improvement system it provides for, in particular where the level of pollution exceeds the upper assessment threshold referred to in Articles 5 and 6 thereof. As noted in paragraph 36 above, in that case, in accordance with Article 6(2) of Directive 2008/50, sampling points are the main instrument for assessing air quality.
- 48 The measurements obtained with those points enable Member States to ensure, as required by Article 13(1) of Directive 2008/50, that, throughout their zones and agglomerations, the levels of the pollutants identified in that directive do not exceed the limit values laid down in Annex XI thereto. If those limit values are exceeded after the deadline for their application, the Member State concerned is required to draw up, in accordance with Article 23(1) of that directive, an air quality plan which meets certain requirements (see, to that effect, judgments of 25 July 2008, *Janecek*, C-237/07, EU:C:2008:447, paragraphs 35 and 42, and of 19 November 2014, *ClientEarth*, C-404/13, EU:C:2014:2382, paragraphs 25 and 40).
- 49 It follows that the very purpose of Directive 2008/50 would be compromised if sampling points located in a given zone or agglomeration were not established in accordance with the criteria laid down therein.
- 50 That risk may also arise if, within the limits of the discretion conferred on them by Directive 2008/50, the competent national authorities do not seek to ensure that the directive is effective. Thus, in particular if measurements taken at several sites are, in principle, likely to provide information on the most polluted locations for the purpose of the first indent of paragraph 1(a) of Section B of Annex III to that directive, it is the responsibility of the competent national authorities to choose the location of sampling points in such a way as to minimise the risk that incidents in which limit values are exceeded may go unnoticed.
- 51 In this context, those authorities are required to base their decisions on sound scientific data and, as set out in Section D of Annex III to Directive 2008/50, to prepare comprehensive documentation that includes evidence supporting the choice of the location of all monitoring sites. That documentation must be updated regularly to ensure that the selection criteria remain valid.
- 52 Therefore, while the choice of the location of sampling points requires technical and complex assessments, the discretion of the competent national authorities is limited by the purpose and objectives pursued by the relevant rules in this respect.
- 53 Moreover, since individuals are entitled to have a court verify whether national legislation and its application remained within the limits of the margin of discretion allowed in Directive 2008/50 when the location of sampling points was chosen, the court designated for this purpose by national law also has jurisdiction to take all necessary measures in respect of the national authority concerned, such as

an order, to ensure that such points are sited in accordance with the criteria laid down in that directive (see, to that effect, judgments of 25 July 2008, *Janecek*, C-237/07, EU:C:2008:447, paragraphs 38 and 39, and of 19 November 2014, *ClientEarth*, C-404/13, EU:C:2014:2382, paragraphs 55, 56 and 58).

54 In this respect, it is clear from the Court's case-law that, in the absence of EU rules, it is for the domestic legal system of each Member State to designate the courts and tribunals having jurisdiction and to lay down the detailed procedural rules governing actions for safeguarding rights which individuals derive from EU law, such as Directive 2008/50. However, the detailed rules provided for must not be less favourable than those governing similar domestic situations (principle of equivalence) and must not make it impossible in practice or excessively difficult to exercise rights conferred by EU law (principle of effectiveness) (see, to that effect, judgments of 6 October 2015, *East Sussex County Council*, C-71/14, EU:C:2015:656, paragraph 52, and of 22 February 2018, *INEOS Köln*, C-572/16, EU:C:2018:100, paragraph 42). As regards the latter principle, it should be recalled that the right to an effective remedy and to a fair trial is enshrined in Article 47 of the Charter of Fundamental Rights of the European Union, which constitutes a reaffirmation of the principle of effective judicial protection (see, to that effect, judgments of 26 July 2017, *Sacko*, C-348/16, EU:C:2017:591, paragraph 31, and of 27 September 2017, *Puškár*, C-73/16, EU:C:2017:725, paragraph 59).

55 In the present case, it was stated at the hearing before the Court and was not disputed that the national courts with jurisdiction to verify the location of sampling points have, under the relevant rules of Belgian law, a power to issue orders in respect of national authorities. It is therefore for the national court to make use, where appropriate, of that power under the conditions laid down by national law.

56 In view of all the above considerations, the answer to the first question is that Article 4(3) TEU and the second subparagraph of Article 19(1) TEU, read in conjunction with the third paragraph of Article 288 TFEU, and Articles 6 and 7 of Directive 2008/50 must be interpreted as meaning that it is for a national court, hearing an application submitted for that purpose by individuals directly affected by the exceedance of the limit values referred to in Article 13(1) of that directive, to verify whether the sampling points located in a particular zone have been established in accordance with the criteria laid down in paragraph 1(a) of Section B of Annex III to the directive and, if they were not, to take all necessary measures in respect of the competent national authority, such as, if provided for by national law, an order, with a view to ensuring that those sampling points are sited in accordance with those criteria.

The second question

57 By its second question, the referring court asks whether Article 13(1) and Article 23(1) of Directive 2008/50 must be interpreted as meaning that, in order to establish whether a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been exceeded, it is sufficient that a pollution level higher than that value be measured at a single sampling point or whether it is necessary that the average of the measurements taken at all the sampling points in a particular zone or agglomeration indicate such a pollution level.

58 It has been recalled, in paragraph 48 above, that it is for the Member States to ensure, in accordance with Article 13(1) of Directive 2008/50, that, throughout their zones and agglomerations, the levels of the pollutants referred to in that directive do not exceed the limit values laid down in Annex XI thereto. If those limit values are exceeded after the deadline for their application, the Member State concerned is required to draw up an air quality plan, in accordance with Article 23(1) of that directive.

- 59 As the Advocate General noted in points 72 to 75 of her Opinion, the wording of Article 13(1) of Directive 2008/50 does not make it possible to answer the second question raised by the referring court. The same applies as regards Article 23(1) of that directive.
- 60 When a literal interpretation of a provision of EU law does not permit its precise scope to be assessed, it must be interpreted by reference to the general scheme and the purpose of the rules of which it forms part (judgment of 6 June 2018, *Koppers Denmark*, C-49/17, EU:C:2018:395, paragraph 22 and the case-law cited).
- 61 It follows from Article 6(1) and the third subparagraph of Article 13(1) of Directive 2008/50 that it is for the Member States to assess compliance with the limit values in accordance with the requirements and criteria set out in Annex III to that directive. As is apparent from paragraph 1 of Section A of that annex, Sections B and C of that annex concern the location of sampling points, but also provide guidance for the implementation of the other air quality assessment methods provided for in Directive 2008/50.
- 62 In this respect, it was observed, in paragraph 39 above, that the provisions of paragraph 1(a) and (f) of Section B of Annex III to Directive 2008/50 require sampling points to provide representative data for locations in a zone or agglomeration characterised by a certain level of pollution. The system thus designed by the EU legislature seeks to enable the competent authorities not only to know the level of air pollution at the location represented by a sampling point, but also to infer from this the level of pollution at other similar locations. As is apparent from recital 14 of Directive 2008/50, the latter objective is achieved, *inter alia*, by using modelling techniques.
- 63 It follows that the determination of the average of the values measured at all sampling points in a zone or agglomeration does not provide a valid indication as to the population's exposure to pollutants. In particular, such an average does not make it possible to determine the level of exposure of the population in general, since that level must be assessed using sampling points set up specifically for that purpose, in accordance with the second indent of paragraph 1(a) of Section B of Annex III to Directive 2008/50.
- 64 Article 15 of Directive 2008/50, read in conjunction with Article 2(20) and (23) and Section A of Annex XIV to that directive, confirms that assessment. In accordance with Article 15 of the directive, Member States are to establish an indicator of average exposure to PM_{2.5}. That indicator is not determined on the basis of an average of the pollution level at all sampling points in a zone or agglomeration, but by reference to the values obtained at the points which measure urban background pollution only, which, in accordance with Article 15(4) of the directive, must reflect the general population's exposure to PM_{2.5}, in accordance with Annex III to Directive 2008/50.
- 65 In addition, the third subparagraph of Article 23(1) of Directive 2008/50 provides that air quality plans are to incorporate at least the information listed in Section A of Annex XV to that directive. In accordance with paragraph 1 of Section A of Annex XV, air quality plans must identify the place where an exceedance of the limit values has been measured, including the sampling point(s) concerned.
- 66 In the light of those considerations, it follows from the general scheme of Directive 2008/50 that, for the purposes of the assessment, by Member States, of whether the limit values set out in Annex XI to that directive have been complied with, the level of pollution measured at each individual sampling point is decisive.
- 67 That interpretation of Article 13(1) and Article 23(1) of Directive 2008/50 is confirmed by the purpose of the directive. As is apparent from recital 2 and Article 1 thereof, that directive aims to protect human health and, to this end, provides for measures to combat emissions of pollutants at source. In accordance with that objective, it is necessary to determine the actual air pollution to which the

population or part of it is exposed and to ensure that appropriate measures are taken to combat the sources of such pollution. Consequently, the fact that a limit value has been exceeded at a single sampling point is sufficient to trigger the obligation to draw up an air quality plan, in accordance with Article 23(1) of Directive 2008/50.

- ⁶⁸ In view of all the above considerations, the answer to the second question is that Article 13(1) and Article 23(1) of Directive 2008/50 must be interpreted as meaning that, in order to establish whether a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been exceeded, it is sufficient that a pollution level higher than that value be measured at a single sampling point.

Costs

- ⁶⁹ Since these proceedings are, for the parties to the main proceedings, a step in the action pending before the national court, the decision on costs is a matter for that court. Costs incurred in submitting observations to the Court, other than the costs of those parties, are not recoverable.

On those grounds, the Court (First Chamber) hereby rules:

- 1. Article 4(3) TEU and the second subparagraph of Article 19(1) TEU, read in conjunction with the third paragraph of Article 288 TFEU, and Articles 6 and 7 of Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe must be interpreted as meaning that it is for a national court, hearing an application submitted for that purpose by individuals directly affected by the exceedance of the limit values referred to in Article 13(1) of that directive, to verify whether the sampling points located in a particular zone have been established in accordance with the criteria laid down in paragraph 1(a) of Section B of Annex III to the directive and, if they were not, to take all necessary measures in respect of the competent national authority, such as, if provided for by national law, an order, with a view to ensuring that those sampling points are sited in accordance with those criteria.**
- 2. Article 13(1) and Article 23(1) of Directive 2008/50 must be interpreted as meaning that, in order to establish whether a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been exceeded, it is sufficient that a pollution level higher than that value be measured at a single sampling point.**

[Signatures]