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# The emergence of a right to clean air: Transforming European Union law through litigation and citizen science

Delphine Misonne

**Correspondence**
Email: delphine.misonne@usaintlouis.be

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Air quality is a matter of rights. A substantive right to clean air for individuals has emerged from European Union legislation, the corollary of duties made ever tighter by the Court of Justice of the European Union (CJEU). In delivering on these developments, reliance on two factors was and remains of crucial importance: litigation and citizen science. The present article focuses on the CJEU's interpretation of European Union law on ambient air quality and on how that interpretation impacts domestic jurisdictions. The article explores the apparent absence of rights talk in such legislation, while showing in parallel how air quality, health and rights constantly intersect and form an undeniable backdrop, or context, that favours – and even requires – a stricter protection of individuals against air quality degradation.

## 1 | INTRODUCTION

Air quality is a matter of rights. A substantive right to clean air has emerged from European Union (EU) legislation, the corollary of duties made ever tighter by the Court of Justice of the European Union (CJEU). While the expression 'right to clean air' has not yet been written in bold letters into case law, spelling out what is now implicit might turn out to be the next logical step forward. In delivering on these developments, reliance on two factors was and remains of crucial importance: litigation and citizen science. The vitality of EU legislation on ambient air quality – and its application in every Member State – has proved to be quite dependent on judicial activism and on fresh approaches to citizen empowerment.

The present article focuses on the CJEU's interpretation of EU law on ambient air quality and on how that interpretation affects domestic jurisdictions. It explores the apparent absence of rights talk in Directive 2008/50, the Ambient Air Quality Directive,[1] while showing in parallel how air quality, health and rights constantly intersect and form an undeniable context that favours – and even requires – a stricter protection of individuals against air quality degradation. It explains how citizens and associations have become drivers for change in activating the potential of the Directive. The article also demonstrates how fraught the subject has become and connects ambient air quality law to the recent major increase in the number of low-emissions zones in Europe. It touches on the limitations of a directive which does not actually give the highest priority to what it is meant to protect, but also raises the alert on the risk attached to modifying legislation that is now endowed with a particularly strong jurisprudential *acquis*, should newer legislation fail to include such recent advances. Finally, the article reflects on the trend to adopt a *compliance-solving* approach to the European directive, while a *problem-solving* approach to air pollution might be more in line with contemporary expectations.

## 2 | EU LAW ON AMBIENT AIR QUALITY

There is no 'Clean Air Act' under EU law that consistently addresses all issues relating to impacts on the atmosphere. However, there is

[1] Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe [2008] OJ L152/1.

an act, which, among a handful of other essential elements,[2] today plays a prominent role, namely the Ambient Air Quality Directive (Directive 2008/50).

This directive targets diffuse pollution. It establishes the required quality of the air we breathe in outdoor environments by prescribing limits to the concentration of a limited series of pollutants. It prescribes how and by whom the quality of the air we breathe must be measured, communicated, maintained and, where necessary, improved. Regarding improvement, the key instrument is the 'plan'.[3]

Directive 2008/50 did not pioneer ambient air quality law. Its roots can be traced back to several decades earlier.[4] This is important to bear in mind when we move on to the argument on why litigation and citizen science matter. Based on the idea that concentrations of pollutants in the troposphere needed to be regulated, as well as taking action on individual sources, so-called 'immission' limit values[5] were first imposed for the pollutants that were considered the most worrying at the time in Europe. One year after the adoption of the 1979 Long Range Convention on Transboundary Air Pollution, limit values were established for sulphur dioxide, the cause of acid rain, and for particulates.[6] Lead was added in 1982,[7] nitrogen dioxide in 1985[8] and ozone in 1992.[9] Four years later, a thorough reform – meant to represent a departure from a piecemeal approach – was passed with the adoption of a 'mother directive', Directive 96/62 on ambient air quality assessment and management,[10] which shaped the governance of ambient air quality in Europe for the next 10 years. The directive acted as an anchor for four so-called daughter directives. These daughter directives were adopted in 1999 (sulphur dioxide, nitrogen dioxide, particulate matter and lead),[11] 2000 (benzene and carbon dioxide),[12] 2002 (ozone)[13] and 2004 (arsenic, cadmium, nickel, polycyclic aromatic hydrocarbons).[14] However, this was not yet the end of the story. Less than four years after the ink on the fourth daughter directive dried and while actors became at last acquainted with the content of Directive 96/62, this delicate construction was set aside. Directive 2008/50 on ambient air quality and cleaner air for Europe, much more than just a recast of the earlier laws,[15] absorbed three out of the four daughter directives and also made substantial changes to the main framework; the occasion called for difficult negotiations during which notions of 'realism' and 'ambition' intertwined.[16] Together with the 'fourth' daughter directive that survived the reform, Directive 2008/50 today governs the harmonization of air quality standards and related policy in the EU.

Since 2008, no reforms have been introduced.[17] National authorities have had a decade to digest, implement and enforce the latest EU ambient air quality legislation.

## 3 | IS DIRECTIVE 2008/50 FIT FOR PURPOSE?

The successive versions of the European legislation on ambient air quality standards improved practices, forced administrations to develop measurement and analysis capacities, and were decisive in making compulsory the sharing of information regarding the state of air quality, including with the public at large. However, the 2018 Special Report of the EU Court of Auditors on air pollution,[18] whose title is self-explanatory – 'Air Pollution: Our Health Still Insufficiently Protected' – does not go easy on Directive 2008/50. The report

[2] See Y Yamineva and S Romppanen, 'Is Law Failing to Address Air Pollution? Reflections on International and EU Developments' (2017) 26 Review of European, Comparative and International Environmental Law 189, 200; and S Romppanen and Y Yamineva (eds), Special Issue on International and EU Law on Air Pollution (2017) 26 Review of European, Comparative and International Environmental Law. EU air policy is a patchwork, the result of case-by-case construction, with influences that are sometimes linked to an international framework and to a necessity to harmonize the internal market. The European Commission identifies three pillars (Commission (EU), 'A Europe that Protects: Clean Air for All' (Communication) COM(2018) 330 final, 17 May 2018): (i) ambient air quality standards; (ii) national emission reduction targets; and (iii) limits on sources, from vehicle and ship emissions to energy, products and industry. The legislation discussed in the present article pertains to the first category.

[3] Directive 2008/50/EC (n 1) art 23.

[4] E Rehbinder, 'The Right to Clean Air: Implementing the Air Quality Directives of the European Union' in T Ormond, M Führ and R Barth (eds), *Environmental Law and Policy at the Turn to the 21st Century* (Lexxion 2005) 193.

[5] Environmental law in Europe distinguishes 'emissions' (the release – e-missions – to send out; the source) from 'immissions' (the receiver – im-missions – to send in; the concentration).

[6] Council Directive 80/779/EEC of 15 July 1980 on air quality limit values and guide values for sulphur dioxide and suspended particulates [1980] OJ L229/30.

[7] Council Directive 82/884/EEC of 3 December 1982 on a limit value for lead in the air [1982] OJ L378/15.

[8] Council Directive 85/203/EEC of 7 March 1985 on air quality standards for nitrogen dioxide [1985] OJ L87/1.

[9] Council Directive 92/72/EEC of 21 September 1992 on air pollution by ozone [1992] OJ L297/1.

[10] Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management [1996] OJ L296/55.

[11] Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air [1999] OJ L163/41.

[12] Parliament and Council Directive 2000/69/EC of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air [2000] OJ L313/12.

[13] Parliament and Council Directive 2002/3/EC relating to ozone in ambient air [2002] OJ L67/14.

[14] Parliament and Council Directive 2004/107/EC of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air [2005] OJ L23/3.

[15] For a step-by-step analysis of the negotiations, see D Misonne, *Droit européen de l'environnement et de la santé – l'ambition d'un niveau élevé de protection* (Anthemis 2011) 92–102.

[16] ibid 99.

[17] However, two decisions were adopted to fix details: the Commission implementing decision 2011/850/EC of 12 December 2011 laying down rules for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality [2011] OJ L335/86; and Commission Directive (EU) 2015/1480 of 28 August 2015 amending several annexes to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council laying down the rules concerning reference methods, data validation and location of sampling points for the assessment of ambient air quality [2015] OJ L226/4.

[18] European Court of Auditors, 'Our Health Still Insufficiently Protected' (2018) <https://www.eca.europa.eu/Lists/ECADocuments/SR18_23/SR_AIR_QUALITY_EN.pdf>.

found, among other conclusions, that 'while air quality has been improving,[19] most Member States still do not comply with the EU's air quality standards and are not taking enough effective action to sufficiently improve air quality' and that 'Air Quality Plans – a key requirement of the Ambient Air Quality Directive – often did not deliver expected results'.[20]

Implementation and transposition by Member States proved to be difficult indeed.[21] One of the many reasons explaining such difficulties is that, in the name of subsidiarity, discretion was preferred to direction. The understanding of the legal nature and severity of air quality standards varied from one country to another.[22] The EU continued to pass the buck to domestic authorities on what plans should effectively contain, while it was obvious, since the mid-1990s, that pollution peaks left public authorities at a loss, with countries such as Greece and France at the forefront of trial-and-error experimentation. Choosing and imposing measures that are *truly* necessary to meet the goals has remained – and still remains – an awkward exercise *in solo*.[23]

Worse, useful tools to reduce pollution to meet the requirements of the Ambient Air Quality Directive were out of reach for Member State authorities. The aim assigned to Member States was to climb a mountain, but without ropes and crampons whether due to EU circumstances or to domestic circumstances. For instance, the approval of car types was retained in the realm of EU internal market provisions, with very little room for manoeuvre to strengthen those provisions, if they proved unsuitable, even if States were not deprived of the possibility of enforcing applicable harmonized standards. Proposed air quality measures also conflicted with the principle of the free movement of goods, with States such as Austria[24] and the Netherlands[25] being brought before the courts for excess of enthusiasm due to the potential impacts of the measures taken on cars and lorries. In countries where devolution holds sway or where local authorities formerly used to be a key actor on air quality issues,[26] coordination was often missing between those in charge of adopting air plans and those, possibly different agencies, in charge of structural areas such as public transport, land planning and product control.

Yet if dramatic advances have been made recently to reduce the use of cars in city centres across Europe, this is no doubt due to the content of the directive and to how it can potentially drive public policies.[27] However, this requires actors to make the most of the directive. Decisive advances, prompting an acceleration in the adoption of appropriate plans, would never have been achieved without the decision of a few citizens and associations to test the essentials of what the directive was actually capable of embracing and triggering.

In 2019, the European Commission completed a 'fitness check' of Directive 2008/50,[28] in order to evaluate its relevance, effectiveness, efficiency, coherence and EU added value. The check concluded that the Directive has been instrumental in driving a downward trend in exceedances and exposure of population but also that it had only been 'partially effective'.[29] It acknowledged how important enforcement actions were, and the role of civil society in that regard, in order to show that the legislation is enforceable.

The peculiarities of the recent wave of air-quality-related litigation are its strategic, public opinion-driven and sometimes technology-based dimensions, completing different pieces of a puzzle one by one and clarifying what the directive actually means and entails, despite the fact that not a single guideline on the same issues has been made available by the European Commission over the last 10 years. At the core of demands for action is the emergence of the notion that people have a right to clean air, a right that is not only collective

[19] With reference to many pollutants, such as sulphur. See, e.g., I Annesi-Maesano, 'The Air of Europe: Where Are We Going?' (2017) 26 European Respiratory Review 170024.

[20] European Court of Auditors (n 18) 6–7.

[21] Data are provided by the European Environmental Agency. See <https://www.eea.europa.eu/themes/air>. In 2013, on the occasion of a communication on a 'Clean Air Programme for Europe' (COM(2013) 918 final, 18 December 2013), the European Commission declared that 'while EU air quality policy has brought significant reductions in concentrations of harmful pollutants such as particulate matter, sulphur dioxide (the main cause of acid rain), lead, nitrogen oxides, carbon monoxide and benzene, major problems remain. Fine particulates and ozone, in particular, continue to present significant health risks and safe limits for health are regularly exceeded. EU air quality standards and targets are breached in many regions and cities, and public health suffers accordingly, with rising costs to health care and the economy. The total external health-related costs to society from air pollution are estimated to be in the range of €330–940 billion per year. The situation is especially severe in urban areas, which are now home to a majority of Europeans.' See European Commission, 'Environment: New Policy Package to Clean Up Europe's Air' (18 December 2013) <https://ec.europa.eu/commission/presscorner/detail/en/IP_13_1274>.

[22] Rehbinder (n 4) 196.

[23] On short-term action plans, Directive 2008/50 imposes on the European Commission the requirement to publish guidelines with examples of best practices, but they were never published or, if they were, they are not made available on the Commission website dedicated to the Directive. See Directive 2008/50/EC (n 1) art 24(4).

[24] Case C-320/03, *Commission v Austria*, ECLI:EU:C:2005:684 paras 87 and 95: a Member State which, to ensure the quality of ambient air in the zone concerned, adopts legislation 'prohibiting lorries over 7.5 tons, carrying certain goods, from driving' on a road section 'constituting a vital route of communication between certain Member States' fails to 'fulfil its obligations under Articles 28 EC and 29 EC'.

[25] The Netherlands had the intention to advance the application of harmonized rules on the emissions of particulate matters by vehicles, but the European Commission rejected the proposal because it did not satisfy the conditions of derogation to those harmonized rules. The Netherlands applied for the annulment of that Commission decision and lost the case (Case T-182/06, *Netherlands v Commission*, ECLI:EU:T:2007:191) but won on appeal on procedural grounds linked to the appraisal of data (Case C-405/07P, *Netherlands v Commission*, ECLI:EU:C:2008:613 para 77).

[26] On the peculiar situation in the United Kingdom, see E Scotford, 'Is Directive 2008/50 Fit for Purpose: Lessons from Air Quality Governance in England', presentation at the conference 'Resistance is in the Air', Brussels, April 2019. On governance issues in Belgium in relation to air quality, see Senate Report S.6-391 (January 2018) <https://www.senate.be>.

[27] For consulting recent case law on air quality and the implementation of Directive 2008/50 across Europe, see <https://www.right-to-clean-air.eu/en/>. On the situation in Germany, see Deutsche Umwelthilfe, 'Legal Actions for Clean Air' (June 2018) <https://www.right-to-clean-air.eu/fileadmin/Redaktion/PDFs/Download/2017-09-21_Right-to-Clean-Air_Backgroundpaper_GB.pdf>.

[28] Commission (EU), 'Fitness Check of the Ambient Air Quality Directives Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air and Directive 2008/50/EC on ambient air quality and cleaner air for Europe' (Staff Working Document), SWD(2019) 427 final, 28 November 2019 <https://ec.europa.eu/environment/air/quality/aqd_fitness_check_en.htm>.

[29] ibid 38.

in nature but also subjective and – most importantly – amenable to judicial review.

Whoever aspires to live in a better world couches his or her claims in the language of rights, with human rights enjoying a near monopoly on emancipatory discourse.[30] Environmental associations have been described in the literature as being fond of making rights claims a core dimension of the social demands they make on formal institutions of power.[31] Those rights pertain to various possible categories, among which procedural[32] and substantive rights. As explained by Hilson:

> *A procedural right, if won, gives an individual or group the right to enter or use a procedure, which may or may not then produce the substantive result desired. The substantive result is, in other words, one stage removed or indirect. A substantive right, in contrast, provides direct access to the desired result in successful cases. Substantive environmental rights produce a much more direct 'hit' and are therefore likely to enjoy higher salience.*[33]

Among possible substantive rights, Hilson distinguishes legislative rights, on the one hand, which are the – often silent – correlative to a Member State obligation set out in an environmental legislation – a directive – and fundamental rights, on the other hand, which are either expressed in the EU Charter of Fundamental Rights, in or derived from the European Convention of Human Rights or derived from national constitutions.

## 4 | THE RIGHT TO CLEAN AIR

Generally speaking, environmental directives, whatever their content, tend to affirm their goals and objectives, such as a high level of protection of human health and the environment, without making any explicit reference to the issue of rights. De Bùrca observes the language of rights in EU law and identifies fields where the language of protection rather than the language of rights is commonly used, while concerning issues of importance within general human rights discourse. The environment is typically one of these 'excluded categories'.[34] Except for a generic provision in its preamble affirming the respect of fundamental rights,[35] the Ambient Air Quality Directive does not explicitly mention the phrase 'right to clean air' or use any similar expression.[36] However, this did not prevent Member States from inscribing the goal of a right for all to breathe healthy air in their own implementing legislation.[37]

The lack of deference to rights in EU environmental legislation is historically grounded in the way the EU treaties evolved,[38] in parallel to an international convention embracing both EU and non-EU countries, the European Convention on Human Rights, where the human rights talk naturally took place. However, this divide and apparent lack of sensitivity to the discourse around rights in EU law turned out to be an anomaly when it fuelled resistance to the well-established principle of the primacy of EU law over domestic law as it applied to rights-based national constitutions.[39] A reconciliation occurred in 2000 through the adoption of a Charter of Fundamental Rights. That Charter became the touchstone for referring to rights in EU law and even became a binding source of primary law in 2009. However, for environmental issues, no transformation occurred. Article 37 of the Charter, dedicated to environmental protection, does not contain the word 'right' and is not even located in the chapter on 'rights'. Its content sticks to classic primary law vocabulary when noting that 'a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development'.[40]

Yet, one must be cautious in following a too literal approach in the case of the Ambient Air Quality Directive. There is a context of rights, and even fundamental rights, that characterizes the issue of air quality legislation. This is due to the tight connection that exists between ambient air legislation and health protection.

First, the specific prism of rights for individuals very soon came to define how the CJEU positioned itself on the question of air quality, precisely due to the public health issues it raises. In the two

[30] See F Hoffmann, 'Foundations beyond Law' in C Gearty and C Douzinas (eds), *The Cambridge Companion to Human Rights Law* (Cambridge University Press 2012) 81.

[31] J Hancock, *Environmental Human Rights, Powers, Ethics and Law* (Ashgate 2003) 55–77.

[32] How the Aarhus Convention played a role in the rise of litigation on air quality or can be echoed in relation to the notion of environmental information is beyond the scope of this article.

[33] C Hilson, 'Substantive Environmental Rights in the EU: Doomed to Disappoint?' in S Bogojevic and R Rayfuse (eds), *Environmental Rights in Europe and Beyond* (Hart 2018) 87.

[34] G De Bùrca, 'The Language of Rights in European Integration' in G More and J Shaw (eds), *New Legal Dynamics of European Union* (Clarendon Press 1995) 24.

[35] Directive 2008/50/EC (n 1) preambular para 30: 'The Directive respects the fundamental rights and observes the principles recognized in particular by the Charter of Fundamental Rights of the European Union. In particular, this Directive seeks to promote the integration into the policies of the Union of a high level of environmental protection and the improvement of the quality of the environment in accordance with the principle of sustainable development as laid down in Article 37 of the Charter of Fundamental Rights of the European Union.'

[36] Nor did its predecessors.

[37] In countries like France with its *Loi Lepage* of 1996, Code de l'environnement, art. L-220/1, Dalloz.

[38] G De Bùrca, 'The Road Not Taken: The European Union as a Global Human Right Actor' (2011) 105 American Journal of International Law 649.

[39] *Solange I*, BVerfGE 37, 271 2 BvL 52/71 (German Constitutional Court); *Spa Fragd v Amministrazione delle Finanze*, Dec. 232 of 21 April 1989 (1989) 72 RDI (Italian Constitutional Court).

[40] E Morgera and M Duran, 'Article 37: Environmental Protection' in S Peers et al (eds), *The EU Charter of Fundamental Rights: A Commentary* (Hart/Nomos 2014) 983, 1003; D Misonne and N de Sadeleer, 'Article 37 – Protection de l'environnement' in F Picod and S Van Drooghenbroeck (eds), *Charte des droits fondamentaux de l'Union européenne* (1st edn, Larcier 2018) 921; E Scotford, 'Environmental Rights and Principles: Investigating Article 37 of the EU Charter of Fundamental Rights' in Bogojevic and Rayfuse (n 33) 133; A Sikora, *Constitutionalisation of Environmental Protection in EU Law* (Europa Law 2020).

landmark *TA-Luft* cases of 1991,[41] the court was asked to review the way Germany chose to implement European directives on air quality. Germany implemented these directives via technical guidance. Yet, previous case law[42] required that where a directive is intended to create rights for individuals, the transposition must be sufficiently clear and precise so that the persons concerned can ascertain the full extent of their rights and, where appropriate, rely on them before the national courts; in such cases, implementation must occur via the adoption of fully binding rules, and not mere technical guidance.[43] The directive only imposed obligations on public authorities to fix and enforce limit values on emissions. According to the Court, rights were to be found in the very goal of the directive, which is the protection of human health. Whenever exceedance of the limit values could endanger human health, the persons concerned must be in a position to rely on mandatory rules to be able to assert their rights.[44] As explained at length in the opinion of Advocate General Mischo,

> *it is certain that alongside natural or legal persons who, by virtue of their activities, constitute potential sources of pollution, on whom the directives above all especially impose constraints, there are individuals, ordinary citizens, who are thereby given the right that the air which they breathe should comply with the quality standards which have been laid down.*[45]

Where duties to act resting on public authorities are made sufficiently precise under EU law, the goal of which is to protect identifiable beneficiaries, there is a compelling logic in the consideration that associated rights are also already implicitly present. These are silent legislative rights, according to the typology used by Hilson.[46] This fits with an accepted discourse on the foundation of the concept of rights, which, besides morals or interests, can be duties. Rights are the ability to enforce correlative duties.[47] The counterpart and correlative of a legal right is a legal duty.[48]

Moreover, air quality also already connects with fundamental rights, rights all humans should enjoy. This is far from devoid of consequences. Mobilizing fundamental rights broadens the limits of judicial review and restricts the discretion of the decision maker.[49] There are 'ties that bind',[50] because the protection of fundamental rights corresponds to the essentials of the rule of law.

The World Health Organization (WHO), always a source of influence on European ambient air quality law,[51] declared in 2000 'that all people should have free access to air of acceptable quality is a fundamental human right',[52] because all human beings need a regular supply of air as a basic condition of life.

Under the general principles of law flowing out of the jurisprudence of the European Convention of Human Rights, breathing a not heavily polluted air becomes a precondition for the enjoyment of fundamental rights. Serious impacts on health due to air quality degradation were a substantial ground, for the Strasbourg Court, to condemn a State for violation of Article 8 on the protection of private life, home and housing, when local authorities proved unable to actively protect their citizen's right to a healthy environment against heavy air pollution caused by the biggest industrial employer in the locality.[53]

In the recent CJEU *Craeynest* case,[54] Advocate General Kokott linked air quality, EU primary law and the fundamental right to life.[55] Accordingly and by analogy to the seminal case *Digital Rights*, in which the CJEU asserted that:

> *where interferences with fundamental rights are at issue, the extent of the EU legislature's discretion may prove to be limited, depending on a number of factors, including, in particular, the area concerned, the nature of the right at issue guaranteed by the Charter, the nature and seriousness of the interference and the object pursued by the interference*,[56]

she decided that '[m]easures which may impair the effective application of Directive 2008/50 are thus comparable, in their significance, with the serious interference with fundamental rights on the basis of which the Court made the rules on the retention of call data subject to

[41] Case C-361/88, *Commission v Germany*, ECLI:EU:C:1991:224 (*TA-Luft Sulphur*); and Case C-59/89, *Commission v Germany*, ECLI:EU:C:1991:225 (*TA-Luft Lead*).

[42] Case C-29/84, *Commission v Germany*, ECLI:EU:C:1985:229; Case 363/85, *Commission v Italy*, ECLI:EU:C:1987:196 para 7; Case C-131/88, *Commission v Germany*, ECLI:EU:C:1991:87. See Hilson (n 33).

[43] *TA-Luft Sulphur* (n 41) paras 15–16.

[44] ibid para 15.

[45] Case C-361/88, *Commission v Germany*, Opinion of Advocate General Mischo, ECLI:EU:C:1991:43 para 23 (emphasis added).

[46] Hilson (n 33).

[47] DM Walker, *The Oxford Companion to Law* (Clarendon Press 1980) 170.

[48] ibid.

[49] Sikora (n 40) 277.

[50] OW Pedersen, 'The Ties that Bind: The Environment, the European Convention on Human Rights and the Rule of Law' (2010) 16 European Public Law 571.

[51] For an outline of past, present and future work by the WHO, see WHO Regional Office for Europe, 'Evolution of WHO Air Quality Guidelines: Past, Present and Future' (WHO 2017).

[52] The same was said for water. WHO, 'Air Quality Guidelines for Europe' (2nd edn, WHO 2000) 1. However, the statement was not repeated in the 2005 Guidelines, which still mentioned the need for each country to protect the health of its citizens; see WHO, 'WHO Air Quality Guidelines Global Update' (2005) 5.

[53] *Bacila v Roumania* App No 19234/04 (ECtHR, 30 March 2010) (only available in French). But such decisions are rare. See by contrast *Greenpeace v Germany* App No 18215/06 (ECtHR, 12 May 2009), where the Court found that the applicants had not shown – and the documents submitted did not demonstrate – that the State, when it refused to take the specific measures requested by the applicants, exceeded its discretionary power by failing to strike a fair balance between the interests of the individual and of the community as a whole.

[54] Case C-723/17, *Craeynest*, ECLI:EU:C:2019:533 para 33 (*Craeynest*).

[55] Case C-723/17, *Craeynest*, Opinion of Advocate General Kokott, ECLI:EU:C:2019:168 (*Craeynest*, AG Opinion) para 53: 'Directive 2008/50 is based on the assumption that exceedance of the limit values leads to a large number of premature deaths. The rules on ambient air quality therefore put in concrete terms the Union's obligations to provide protection following from the fundamental right to life under Article 2(1) of the Charter and the high level of environmental protection required under Article 3(3) TEU, Article 37 of the Charter and Article 191(2) TFEU.' With references to her own opinion in *Commission v Bulgaria* (Case C-488/15, EU:C:2016:862 paras 2–3), and Commission (EU), 'Proposal of 21 September 2005 for a Directive of the European Parliament and of the Council on ambient air quality and cleaner air for Europe' COM(2005) 447 final, 21 September 2005, 2.

[56] Cases C-293/12 and C-594/12, *Digital Rights*, ECLI:EU:C:2014:238 para 47.

strict review'.[57] The Court supported the Advocate General's position, 'in essence', even if not repeating her very words.[58]

Finally, the challenges of equality and equity, which arise in the context of air pollution in poorer, less organized areas with lower levels of educational attainment, alongside the generic issue of the social distribution of vulnerability to harm,[59] also lead into a rights discourse,[60] even if it is one that is not devoid of controversies.[61] The environmental justice dimension is not explicit in the Ambient Air Quality Directive, except in the attention it pays to the notion of population exposure and its invitation to include 'specific measures aiming at the protection of sensitive population groups, including children'.[62]

Rights mean values but also, possibly, competing values. They rarely amount to unfettered prerogatives but must be seen in the light of their social functions.[63] When confronted with conflicting rights or freedoms of equal value, the CJEU generally considers that the interests involved must be weighed with regard to all the circumstances of the case in order to determine whether a fair balance was struck.[64] Rights are balanced against each other. One cannot find such an explicit review of a fair balance where the CJEU observes that the importance of the objective pursued (like public health or the environment) by the disputed regulation may justify adverse consequences, even substantial financial consequences, for certain operators.[65] In that regard, strangely enough, falling out of the language of rights, for a subject matter like the environment, can sometimes be an advantage in the face of litigation.[66] Observing that there are many possible degrees of environmental protection and that whether a measure is proportionate to achieve a certain objective depends, first and foremost, on the standard set by the objective to be achieved, Jacobs considers it 'safe to say that if the set objective involves a high level of protection, the restraints will inevitably be also higher. So, endorsing higher levels implies a readiness to accept more restrictive measures, as that is the very nature of proportionality.'[67]

## 5 | BUILDING UP JUSTICIABILITY

On air quality issues, for nearly two decades after the *TA-Luft* cases of the early 1990s, the jurisprudence of the Court of Justice remained silent, except for a series of cases in which the goal of plaintiffs was to oppose national measures promoting cleaner air.[68] Not that there were no other questions to be raised. The European legislation on ambient air quality was complex, unstable, not perfectly articulated and not perfectly clear.

What happened next is the entry on to the scene of a crucial actor, the citizen, and behind him, most importantly, the shadow of nongovernmental organizations.[69] In *Janecek* (2008), upon a request for a preliminary ruling made by a German jurisdiction concerning the 1992 Directive on ambient air quality,[70] the Court of Justice confirmed former jurisprudence on the link between health, air and subjective rights, but also addressed the parameters within which actors were free to plan, under the direct effect doctrine. Because air quality legislation is, above all, a matter of public health, the Court found that natural or legal persons directly concerned by a risk that the limits or alert thresholds may be exceeded *must be* in a position to require the competent authorities to draw up an action plan, where such a risk exists. The Court added that they should be able to do so, if necessary, by bringing an action before the competent courts. Not only was the plan a matter for citizens, but it was also a matter for national courts, and open to judicial review. On the content of the plans, the Court remained cautious, but it nevertheless decided that Member States were obliged, subject to judicial review, to plan and implement measures *capable of* reducing to a minimum the risk and duration of the limits and/or alert thresholds being exceeded.[71]

[57] *Craeynest*, AG Opinion (n 55) para 53.

[58] *Craeynest* (n 54) para 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.'

[59] G Walker, *Environmental Justice. Concepts, Evidence and Politics* (Routledge 2012) 104–126.

[60] Sikora (n 40) 12.

[61] DN Scott, 'Environmental Justice and the Hesitant Embrace of Human Rights' in J May and E Daly (eds), *Human Rights and the Environment* (Edward Elgar 2019) 447.

[62] Directive 2008/50 (n 1) art 23.

[63] Case 4/73, *Nold*, ECLI:EU:C:1974:51; Case 44/79, *Hauer*, ECLI:EU:C:1979:290 para 23; Case 265/87, *Schräder*, ECLI:EU:C:1989:303 para 15; Case C-293/97, *Standley and Others*, ECLI:EU:C:1999:215 para 54; Joined Cases C-402/05P and C-415/05P, *Kadi and Al Barakaat International Foundation v Council and Commission*, ECLI:EU:C:2008:461 para 355; Case C-379-08, *ERG and Others*, ECLI:EU:C:2010:127 para 80.

[64] Case C-112/00, *Schmidberger*, ECLI:EU:C:2003:333 para 81.

[65] Case C-86/03, *Greece v Commission*, ECLI:EU:C:2005:769 para 96; Case C-127/07, *Arcelor Atlantique et Lorraine and Others*, ECLI:EU:C:2008:728 para 57.

[66] D Misonne, 'The Importance of Setting a Target: The EU Ambition of a High Level of Protection' (2015) 4 Transnational Environmental Law 11.

[67] F Jacobs, 'The Role of the European Court of Justice in the Protection of the Environment' (2006) 18 Journal of Environmental Law 195, 195.

[68] *Commission v Austria* (n 24); *Netherlands v Commission* (n 25).

[69] The action of the resident was supported by Deutsche Umwelthilfe (Environmental Action Germany). In Germany, *locus standi* was an obstacle to environmental organizations on environmental issues.

[70] Case C-237/07, *Janecek*, ECLI:EU:C:2008:447; H Doerig, 'The German Courts and European Air Quality Plans' (2014) 26 Journal of Environmental Law 139, 146. No Advocate General was asked to deliver an opinion, a sign that the Court did not consider the subject complex – the same year Directive 2008/50 was adopted. But the *Janecek* case became seminal because it filled a gap.

[71] Another question needing clarification was whether the competent national authorities were obliged to establish measures which, in the short term, would ensure that limits are attained or whether they can confine themselves to implementing measures that make it possible for the situation to improve gradually. The Court opted for a non-committal answer. Member States were not obliged to implement measures to ensure that limits and/or alert thresholds were never exceeded. However, Member States were obliged, subject to judicial review, to plan and implement measures *capable of* reducing to a minimum the risk and duration of the limits and/or alert thresholds being exceeded. The findings of the *Janecek* case were confirmed in Case C-165/09 to C-167/09, *Stichting Natuur en Milieu*, ECLI:EU:C:2011:348 paras 94 and 103, which also dealt with a need to 'plan' but in relation to other directives: the National Emissions Ceilings Directive and the Integrated Pollution Prevention and Control Directive (concerning permits for large industrial facilities).

In *ClientEarth v United Kingdom* (2014),[72] the CJEU not only extended the application of *Janecek* to the new Directive 2008/50 but also definitively gave the domestic judge centre stage. The request for a preliminary ruling was, from the start, quite extraordinary, for it came from the Supreme Court of the United Kingdom. This body only hears appeals on arguable points of law of general public importance and concentrates, by being selective, on 'cases of the greatest public and constitutional importance'.[73] Air quality was cast as a case of the greatest public and constitutional importance. The United Kingdom's relation to air pollution is indeed peculiar, especially due to globally prominent pollution events such as the great smog of 1952.[74]

In that judgment brought forward at the request of an environmental association,[75] the Court found that where a Member State has failed to comply with the requirements related to the respect of limit values,

> *it is for the national court having jurisdiction, should a case be brought before it, to take, with regard to the national authority, any necessary measure, such as an order in the appropriate terms, so that the authority establishes the plan required by the directive in accordance with the conditions laid down by the latter.*[76]

Even if not new in countries like Germany,[77] such a departure was quite spectacular. In a decision applicable to the United Kingdom but embracing 28 Member States of different legal traditions all at once, cautious deference to governments[78] and to their discretion on questions actually related to economic or political sensitivity might have been expected. In the event, the judge invited the domestic courts to become the active guardians of the air and to delimit governmental discretion.

In an 'Aarhus-ized'[79] Europe, the 2014 *ClientEarth* judgment inspired further litigation, and the number of air quality cases rose dramatically, with the tangible consequence that cities, one by one, created low-emissions zones and enacted diesel bans, opting for such 'quick-fixes' because restrictions on the use of cars for environmental reasons fall within their competence.

Not unrelated are, for instance, two judgments by the Federal Administrative Court of Germany. The highest administrative court, located in Leipzig, ruled on 27 February 2018[80] in favour of upholding diesel bans in the cities of Stuttgart and Düsseldorf, which had actually been imposed by lower jurisdictions.[81] While we can count two judgments that directly followed the *Janecek* case,[82] more than 30 actions were brought in Germany against different regions and cities following the *ClientEarth* case of 2014.[83] Successful decisions on the need to review air quality plans were also delivered in Belgium,[84] the United Kingdom[85] and even France,[86] where the judicial review of air quality plans had proved to be to no avail in past jurisprudence. Recently, a jurisdiction in Madrid confirmed the relevance and topicality of these very findings. Municipal authorities had decided in June 2019 to scrap the low-emissions zones for reasons of convenience and night-life comfort, but the zone was reinstated a few days later by a local administrative court, upon request from environmental associations, based on the need to adequately protect public health.[87]

## 6 | A SEQUENCE OF QUESTIONS

The *ClientEarth* CJEU judgment of November 2014 acted as an encouragement to a small handful of assertive associations, with a decisive trust in the potential of legal remedies. There are indeed some 'usual suspects' in this story,[88] whose aim is to obtain, one by one if needed, in sequence, new answers from the Court of Justice on the meaning and potential of the Ambient Air Quality Directive.

Limit values under Article 13 amount to obligations to achieve a result;[89] non-attainment amounts to exceedance, and exceedance triggers the establishment of air quality plans under Article 23.[90]

[72] Case C-404/13, *ClientEarth*, ECLI:EU:C:2014:2382.

[73] <https://www.supremecourt.uk/about/role-of-the-supreme-court.html>.

[74] G Fuller, *The Invisible Killer: The Rising Global Threat of Air Pollution – And How We Can Fight Back* (Melville House 2018). Belgium also had its own catastrophe, Engis, much earlier, in 1930.

[75] Pronounced, again and strangely enough, without an opinion.

[76] *ClientEarth* (n 72) para 50 (emphasis added).

[77] Doerig (n 70) and the case law mentioned therein.

[78] M Lee, 'Brexit and Environmental Protection in the United Kingdom: Governance, Accountability and Law Making' (2018) 36 Journal of Energy and Natural Resources Law 351, 359.

[79] According to the expression proposed by Hilson (n 33).

[80] *Deutsche Umwelthilfe v The Land of Northern Westphalia*, ECLI:DE:Fed.Admin.Ct:2018:270218U7C26.16.0; *Deutsche Umwelthilfe v The Land of Baden-Württemberg*, ECLI:DE:Fed.Admin.Ct:2018:270218U7C30.17.0.

[81] A Düsseldorf Administrative Court Judgment of 13 September 2016 (ref. 3K7695/15, see <https://legal.cleanair-europe.org/legal/germany/lawsuits-and-decisions>), in which the city was ordered to update its clean air plan; and a Stuttgart Administrative Court Judgment of 26 July 2017, in which the city was also ordered to update a sectional plan and its relation to traffic bans (ref. 13K5412/15).

[82] A judgment of the Wiesbaden Administrative Court of 10 October 2011 and a judgment of the Munich Administrative Court of 9 October 2012.

[83] There is a database of air quality litigation, with most decisions made available in open access and in English, at the initiative of Deutsche Umwelthilfe and the Frank Bold Society, with the support of a Life project called Right to Clean Air project: <https://www.right-to-clean-air.eu/en/project/right-to-clean-air>. See also Deutsche Umwelthilfe (n 27).

[84] Civ. Bruxelles, *Greenpeace v Flemish Region*, 10 October 2018.

[85] *R (on the application of ClientEarth) (Appellant) v Secretary of State for the Environment, Food and Rural Affairs (Respondent)* [2015] UKSC 28, 29 April 2015 (on appeal from [2012] EWCA Civ 897).

[86] Decision of the French Conseil d'État, *Amis de la Terre* (10 June 2015), ECLI:FR:CESSR:2015:369428.20150610.

[87] On 8 July 2019, with much media coverage. See, e.g., MA Medina, 'On Judge's Orders, Madrid Central Low-emissions Scheme Back in Action' (El País, 8 July 2019).

[88] A Berthier, 'Le pari de l'activisme judiciaire' in D Misonne (ed), *A quoi sert le droit de l'environnement* (Bruylant 2019) 77, 106; A Andrews and U Taddei, *Clean Air Handbook: A Practical Guide to EU Law* (2nd edn, ClientEarth 2015).

[89] For nitrogen dioxide and benzene at least. The mandatory dimension of the limits has always been a contentious issue, with a difference being made between 'limit value' and 'target value' since the early legislative frameworks; some of them, on ozone or mercury, only incorporate target values for the pollutants concerned. See 'The Evolution of Air Quality Policies over the Past 20 Years' <https://www.the-ies.org/analysis/evolution-air-quality-policies>.

[90] *ClientEarth* (n 72) para 30.

Plans or even enhanced plans can be requested by citizens. The discretion domestic authorities enjoy in determining the content of the plan is large but has limits. That discretion is subject to judicial review. The plan must be capable of keeping the exceedance period as short as possible. In that regard, a time span of eight consecutive years is too long and is not in line with the requirement to adopt and implement, *as swiftly as possible*, appropriate measures;[91] a deadline of 10 or 14 years is also not in accordance with the requirement, even if it is determined with the socioeconomic and financial challenge of major investments[92] in mind.

Like different bits of the same story, it is only due to recent litigation that these pieces of clarification were brought into alignment. Many answers have been assembled together which effectively flesh out the citizen's right to breathe cleaner air, beyond mere condemnations for not having fulfilled obligations under EU law.[93]

This litigation wave is now the supporting structure upon which other cases are also being built, as demonstrated in a recent case, *Commission v France*[94] of 24 October 2019, where another set of answers was also provided, including that the *gilets jaunes* and *Dieselgate* crises cannot be used to distract attention from defaults in France's compliance with EU air quality law. And the end is not yet in sight, as another new chapter opened up recently: measurement.

## 7 | CITIZEN SCIENCE

### 7.1 | All experts

Maybe you have noticed those new types of measurement devices, sometimes homemade, on the rear of bicycles or on your neighbour's terrace. People are analysing the air they breathe and reporting their analysis to centralized databases. Emerging new technologies facilitate the involvement of the public at large in *a priori* highly technical matters such as air quality measurement, a domain traditionally left to experts and public authorities. Not only are new types of measurement devices – often light and portable – today broadly accessible and affordable, but our digital society also makes the collection and sharing of data possible; people mobilize, network and report online. In Belgium, where different campaigns proved very popular in 2018, organized at the initiative of individuals, such as parents at schools and in miscellaneous associations,[95] academics and even public authorities,[96] the process, even more than the results, made the headlines. The project proved to have strong awareness-raising power both for participants and for the general public.

Today's context is very different from that of decades ago, in the late 1970s, when the first legislative frameworks were being built internationally. How measurement was to be generalized and framed was a key dimension of the adoption, in 1989, of the Convention on Long-range Transboundary Air Pollution and of subsequent European legislation. Public authorities and experts were in charge. The necessity to measure and to standardize such measurement fills all of Chapter II of Directive 2008/50.[97] However, because exceedances of limit values trigger the adoption of policies that must reduce pollution, the way air quality is measured is not only technical but also political. The negotiation of Directive 2008/50 demonstrated that the stakes are high. Pollution can be made more or less visible, depending on how, where and when you measure it.

When applied to other domains, such as birdwatching or butterfly identification, citizen science is a means of updating data or of complementing official measures to raise awareness.[98] But when applied to air quality, citizen science rather tends to challenge official measures and their interpretation. This is in line with concerns expressed by associations or community activists that institutional knowledge and understanding should be scrutinized, rather than taking what is available, and officially recognized, as sufficient and reliable.[99] Developing their own expertise is a means of changing the way problems are framed,[100] and of revealing issues of inequity that might actually arise from within the regulatory framework itself.

On 10 October 2018, in a judgment of the Court of First Instance of Brussels in *Greenpeace v Flemish Region*,[101] the question raised was whether the data collected via a citizen science project reporting on air quality should be communicated to the European Commission by regional authorities or if the communication of official data alone would suffice. The tribunal observed that the directive foresees a role for so-called indicative measures when they meet the criteria set out in Article 6 of Directive 2008/50 and its

[91] Case C-488/15, *Commission v Bulgaria*, ECLI:EU:C:2017:267 paras 112–114. See L Krämer, '480.000 Dead per Year are Enough: The CJEU Opens a New Way to Better Enforce Air Quality Laws' (2018) 1 Journal of European Environmental and Planning Law 111, 121.

[92] Case C-336/16, *Commission v Poland*, ECLI:EU:C:2018:94 paras 99–101.

[93] Compare ClientEarth (n 72) with Case C-68/11, *Commission v Italy*, ECLI:EU:C:2012:815.

[94] Case C-336/18, *Commission v France*, ECLI:EU:C:2019:900 paras 47 and 83.

[95] L Chemin, N da Schio and T Cassiers, 'Citizen Science, Collective Knowledge Empowers Us All' (Bral Brussels 2019).

[96] CurieuzeNeuzen Vlaanderen involved 20,000 citizens in measuring the air quality near their own homes in May 2018, with intense media coverage. The aim was to acquire a detailed map of air quality in Flanders focusing on nitrogen dioxide. The large dataset collected by CurieuzeNeuzen Vlaanderen was to be used to test the state-of-the-art ATMOSYS computer model (developed by VITO for the Flemish Environment Agency) that is currently used to assess air quality in Flanders.

[97] The assessment of air quality varies according to the type of pollutants and can be based on fixed measurement and/or modelling. Ozone is submitted to a different regime than the more 'classical' pollutants (sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide).

[98] J Silvertown, 'A New Dawn for Citizen Science' (2009) 24 Trends in Ecology and Evolution 467, 471; G Newman et al, 'The Future of Citizen Science: Emerging Technologies and Shifting Paradigms' (2012) 10 Frontiers in Ecological Environments 6; M Mueller, D Tippins and L Bryan, 'The Future of Citizen Science' (2013) 20 Democracy and Education 2.

[99] Walker (n 59) 123.

[100] ibid 123, referring among others to D Pellow and R Brulle (eds), *Power, Justice and the Environment: A Critical Appraisal of the Environmental Justice Movement* (MIT Press 2005) 253.

[101] Civ. Brussel, 10 oktober 2018, Voorz. Rb. Brussel (NI.) (10e k.) 10 oktober 2018, note by A Carette (2018) 6 Tijdschrift Milieu en Recht 706, 729.

annexes. As a consequence, that supplementary information based on citizen science must also be taken seriously and passed on to the European Commission.[102]

Through such actions and the collected data, whether reliable or not, the way air quality was for a long time officially measured in the EU has been brought into the limelight and is raising important questions. Measurement is another way for citizens to claim their own interest in, and equal rights to, determining the quality of the air they breathe.

### 7.2 | Exposure

In the *Craeynest* case,[103] four inhabitants of the Brussels Capital Region and an association, ClientEarth,[104] wanted to know if the location of sampling points was also a matter for judicial review. Decisions on sampling points must be based on sound scientific data and on a comprehensive documentation that must be updated regularly to ensure that the selection criteria remain valid, according to the Court. However, as effectiveness is of the essence and due again to the very purpose of the directive – protect public health, assess the achievement of limit values and, in the case of exceedance, require the drawing up of a plan[105] – it is also the responsibility of competent national authorities to 'minimize the risk that incidents in which limit values are exceeded may go unnoticed'.[106]

The case is an important step forward for the emerging issue of the general population's concrete exposure to air pollution.[107] As the directive aims to protect human health and, to this end, combat emissions at their source, the Court suggests 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. The Court finds that the level of pollution measured at *each* sampling point is decisive, rejecting the interpretation that an average of all sampling points in a zone should be what is deemed conclusive:

> *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.*[108]

This finding offers substantial potential for litigation and has the potential to transform the siting of sampling points into a judicial battleground. The case's findings on that aspect have already been confirmed in another CJEU judgment.[109] It definitively places the exposed and breathing human at the core of European air quality policy. The case also importantly ties air quality to the fundamental right to life, as previously explained.[110]

## 8 | A TIDE MOVES BACK AND FORTH

Resistance to such 'pro-air quality' developments must also be highlighted, however. People are taking to the streets to protest against diesel bans. Lawsuits opposing low-emissions zones are being brought before national courts.[111] Authorities even refuse, like the Minister-President of Bavaria, to comply with the injunction to adopt traffic bans and publicly state their reasons why.[112]

When emissions limits are not respected in a given 'zone', which, according to the language of Directive 2008/50 is 'the territory of a Member State, as delimited by that Member State for the purposes of air quality assessment and management',[113] public authorities must adopt a plan.[114] The contents of a plan are not standardized. Public authorities can choose many options, one of them being the creation of low-emissions zones (LEZs) restricting access to cars. Those zones are put forward as suggestions only, in Annex XV of the directive, with no details added. Again, according to the directive, it is up to the national authorities to determine what they might actually mean and entail.

Member States did not all set their own rules or, if they did, as in the Brussels Region, the scheme is only applicable on the territory of that single region, due to the way the federal system is configured. In Germany, in the wake of the *Janecek* case, 40 LEZs were already counted at city level in 2014, each created in its own specific way.[115] In 2019, this number increased to 58.[116] The variability of the restrictions applicable to cars in different LEZs, and of elements not comprehensively dealt with by the directive, causes confusion and dissent. That variability flows from a lack of

[102] L Lavrysen, 'Air Quality Law in Belgium' in Country Questionnaire Responses: Air Quality Law (2019) <https://avosetta.jura.uni-bremen.de/questionnaires_2019.pdf>. This is food for thought for the ever-expanding interpretation of the notion of access to information relating to the environment, as proposed by the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

[103] *Craeynest* (n 54).

[104] There are some 'usual suspects' in this story, demonstrating a strategy in litigation by a few assertive associations; Andrews and Taddei (n 88).

[105] *Craeynest* (n 54) paras 32, 48 and 49.

[106] ibid para 50.

[107] ibid paras 64–67.

[108] ibid para 67.

[109] *Commission v France* (n 94) para 44.

[110] See Section 4.

[111] Such as in Belgium, Constitutional Court, C.C., 28 February 2019, n° 37/2019.

[112] Case C-752/18, *Deutsche Umwelthilfe v Freistaat Bayern*, ECLI:EU:C:2019:1114 para 18.

[113] Directive 2008/50/EC (n 1) art 2.

[114] Through a combination of two articles of the directive: Article 13 (limit values) and Article 23 (plans).

[115] Doerig (n 70).

[116] See <http://gis.uba.de/website/umweltzonen/umweltzonen_en.php>.

harmonization at the EU level. Legally speaking, it is up to Member States to adopt their own harmonized framework, but they are not always keen to do so where not absolutely obliged to under EU law.

The lack of EU harmonization fuels the possibility of conflict and casts doubt on the true virtues of subsidiarity on deciding about how to effectively reach limit values. Among the possible conflicts is the tension between market control and restriction on uses, often the easiest way for Member States to proactively intervene on emissions sources. Can a LEZ be interpreted as amounting to a restriction on the use of cars, so severe that it could turn out to be incompatible with internal market provisions on the approval of car types and their access to the European market? This question arose indirectly in a recent case.[117] Any answer to this question must take into account that where restrictions pursue the genuine goal of protecting human health – given the need to comply as soon as possible with the limit values prescribed under Directive 2008/50 – this is not a lesser goal than the free movement of goods under EU law. In *Janecek*, the Court noted the necessity of balancing the goal of respecting limit values and reducing exceedances with various opposing public and private interests. However, that finding, confirmed several times recently, did not lessen the severity of the obligation to reduce exceedances as soon as possible.[118]

As explained by Doerig, 'the problems for public administration in complying with the limits for air pollution as defined in the relevant EU Directives raise serious political and economic questions'.[119] However, for domestic courts, 'this is not a reason to refrain from judicial control. On the contrary, they now regularly issue injunctions ordering public administrations to issue more effective air quality plans.'[120] Domestic jurisdictions have no other choice, under the terms of EU treaties, than to endorse the advances of EU case law on air quality.

In a landmark case of 19 December 2019, *Deutsche Umwelthilfe v Freistaat Bayern*,[121] the CJEU, in Grand Chamber, asserted that EU law

> *must be interpreted as meaning that, in circumstances in which a national authority persistently refuses to comply with a judicial decision enjoining it to perform a clear, precise and unconditional obligation flowing from EU law, in particular from Directive 2008/50, it is incumbent upon the national court having jurisdiction to order the coercive detention of office holders involved in the exercise of official authority, if provisions of domestic law contain a legal basis for ordering such detention which is sufficiently accessible, precise and foreseeable in its application*.[122]

This finding is grounded in the procedural right to an effective remedy, combined with the substantial risk to public health:

> *When the Member States implement EU law, they are required to ensure compliance with the right to an effective remedy enshrined in the first paragraph of Article 47 of the Charter (judgment of 29 July 2019, Torubarov, C-556/17, EU:C:2019:626, paragraph 69), a provision which constitutes a reaffirmation of the principle of effective judicial protection. In the case of actions intended to secure compliance with environmental law, in the particular on the initiative of environmental protection associations as in the main proceedings, that right to an effective remedy is also enshrined in Article 9(4) of the Aarhus Convention*.[123]

> *The right to an effective remedy is all the more important because, in the field covered by Directive 2008/50, failure to adopt the measures required by that directive would endanger human health (see, by analogy, judgment of 25 July 2008, Janecek, C-237/07, EU:C:2008:447, paragraph 38)*.[124]

On the compatibility of car bans with the right to property and the right to own a car, national courts can also rely on the provisions of the European Convention on Human Rights and its First Protocol, according to which the right to property shall not in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest.[125] LEZs further the aim of protecting human health via a reduction in atmospheric pollution – a preoccupation of general interest.[126]

But one must also understand resistance. A gradual approach, giving car owners reasonable time to adapt and transition to the new situation, would usually strengthen the proportionality and reasonableness of national plans under EU law. However, in relation to Directive 2008/50, the CJEU jurisprudence takes a different stance, due to the content of Article 23,[127] which requires the reduction of periods of ex-

[117] See in that regard the first part of Case T-339/16, *Ville de Paris, Ville de Bruxelles and Ayuntamiento de Madrid v European Commission*, ECLI:EU:T:2018:927 (pending appeal).

[118] *Commission v Bulgaria* (n 91) para 106; *Commission v Poland* (n 92) para 93; *Commission v France* (n 94) para 79.

[119] Doerig (n 70) 145.

[120] ibid.

[121] *Deutsche Umwelthilfe v Freistaat Bayern* (n 112).

[122] Provided that the limitation on the right to liberty, guaranteed by Article 6 of the Charter of Fundamental Rights, that would result from this ordering complies with the other conditions laid down in that regard in Article 52(1) of the Charter; ibid para 56.

[123] ibid para 34.

[124] ibid para 38.

[125] Protocol 1 to the Convention for the Protection of Human Rights and Fundamental Freedoms (adopted 20 March 1952, entered into force 18 May 1954) ETS 9 art 1.

[126] *Greenpeace v Germany* (n 53).

[127] Answers are still expected on the issue of proportionality; see J Kokott and C Sobotta, 'The Contribution of the Case Law of the CJEU to the Judicial Enforcement of EU Environmental Law in the UK' (2019) 16 Journal of European Environmental and Planning Law 109, 124.

ceedances 'as soon as possible'. This is an extremely solid element in the current *acquis*, confirmed in all recent cases, and in line with the goal of EU environmental policy to achieve a high level of protection, especially on public-health-related environmental issues. In October 2018, the European Commission brought an action against Germany before the Court of Justice, demanding that action plans keep 'the exceedance periods as short as possible'.[128] On 24 October 2019, France was condemned for the same reasons; permanent exceedance of nitrogen oxide during more than seven years was not acceptable.[129]

## 9 | STRETCHING TO THE LIMITS

Even if perfectly aware of it, the Ambient Air Quality Directive falls short of replicating the threshold fixed by WHO guidelines for all regulated pollutants. Those are only guidelines, and the WHO itself stipulates that 'when formulating policy targets, governments should consider their own local circumstances carefully before adopting the guidelines directly as legally based standards'.[130] However, the EU should not necessarily refrain from doing so if, as asserted in the *Craeynest* case,

> *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 [Treaty on European Union] and Article 191(1) and (2) TFEU [Treaty on the Functioning of the European Union], 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.*[131]

One should reflect on the behaviour of Member States, which tend to adopt a *compliance-solving* approach to the European directive[132] rather than a *problem-solving* approach to air pollution. Member States have the competence to strengthen Directive 2008/50, the legal base of which is the TFEU chapter on environmental protection.[133] Recent judicial actions at the domestic level, brought forward again by citizens and associations, try to move beyond sole compliance with the directive, inspired by recent climate litigation applied in a very different judicial context.[134]

A court of appeal in the Netherlands did not recognize any breach of the fundamental rights to life and health by the State, when only aiming at complying with EU law and not targeting a higher goal, for instance WHO guidelines on fine particulates.[135] However, in a recent decision in France, the *possibility of* a breach of a duty of care, with due regard to applicable civil law, was admitted by an administrative tribunal in Montreuil on 25 June 2019 in relation to the inadequacy of air quality plans.[136] Three judgments pronounced in Paris, on 4 July 2019, confirm that a link must be drawn between State liability and air quality plans, as 'prescribed by the Directive', again opening new avenues to public interest litigation.[137]

## 10 | CONCLUSION

There would be no possibility of a convincing protection of ambient air in Europe stemming from Directive 2008/50 without the accompanying case law of the CJEU that has been established, patiently, often strategically, due to the decisions of a limited number of associations and citizens to bring their cases before the domestic courts with good arguments and the conviction that the air people breathe is a matter of rights. In the specific structure built upon Directive 2008/50, after years of procrastination and resignation, strategic litigation made all the difference. It forced the CJEU to flesh out the true meaning of the Directive, including on measurement. A re-humanization of EU ambient air policies is the main dividend in this process.[138]

While air quality plans and measurements were for a long time in the realm of administrative discretion, they have now turned out to be a matter of rights for individuals and for the exposed population. These include silent rights mirroring a fluid dynamic of ever stronger duties under the directive. But they also include fundamental rights, both substantial (the right to life) and procedural (the right to an effective remedy) that subject implementing national measures to another category of limits.

[128] Case C-635/18, *Commission v Germany* (pending).

[129] Case C-636/18, *Commission v France*, ECLI:EU:C:2019:900.

[130] As mentioned in their 2005 update: 'National standards will vary according to the approach adopted for balancing health risks, technological feasibility, economic considerations and various other political and social factors, which in turn will depend on, among other things, the level of development and national capability in air quality management. The guideline values recommended by WHO acknowledge this heterogeneity and, in particular, recognize that when formulating policy targets, governments should consider their own local circumstances carefully before adopting the guidelines directly as legally based standards.'

[131] *Craeynest* (n 54) para 33.

[132] Reaching limit values is reaching a 'magic number', according to E Scotford, 'Air Quality Law for the Future: Fixing the Fundamentals' (Brexit and Environment Law Blog, 14 February 2019) <https://www.brexitenvironment.co.uk/2019/02/14/air-quality-law-for-the-future>.

[133] Consolidated Version of the Treaty on the Functioning of the European Union [2008] OJ C115/49 art 193.

[134] If one takes the *Urgenda* case in the Netherlands and the first 2015 judgment, the judicial review of the discretion of the State was not tested against European Union law, for there was no relevant framework at the time, which was an in-between period in which the impact of the Kyoto Protocol was coming to an end.

[135] Hof Den Haag, 7 May 2019, *Milieudefensie & Adem C. The Netherlands*, ECLI:NL:GHDHA:2019:915.

[136] See <http://montreuil.tribunal-administratif.fr/Actualites/Actualites-Communiques/Communique-de-presse-du-25-juin-2019>.

[137] Judgments n° 1709333, n° 1810251 and n° 1814405 (all 4 July 2019) <http://www.paris.tribunal-administratif.fr>.

[138] N Ferreira, 'The Human Face of the European Union? Are EU Law and Policy Humane Enough? An Introduction' in N Ferreira (ed), *The Human Face of the European Union* (Cambridge University Press 2016) 4; N O'Meara, 'Lisbon, via Stockholm, Strasbourg and Opinion 2/13: Prospects for Citizen-centered Protection of Fundamental Rights?' in ibid 74.

This trend is coherent with the growing attention being paid to environmental rights by the judiciary across the world.[139] Advances in that regard can be incremental, or even compartmentalized.[140] The right to clean air under EU law is only one flower in the bouquet that fleshes out what a high level of environmental protection truly means.[141] Even Article 37 of the Charter of Fundamental Rights is moving out of the weak category of principles under the Charter to join the category of rights. This can be observed particularly in two recent cases, in which the Court found that:

> *Article 52(2) provides that* rights *recognised by the Charter for which provision is made in the Treaties are to be exercised under the conditions and within the limits defined by those Treaties. Such is the case with Article 37 of the Charter, which is essentially based on Article 3(3) TEU and Articles 11 and 191 TFEU.*[142]

However, there are also limits to the action of stretching such legislation to its full maximum through litigation. Does this mean we need a new directive, again? Some changes, harmonized executive measures and fine-tuning are certainly needed, but one must not underestimate the cost of a new reform if it should weaken the jurisprudential *acquis*. However, on air quality, previous case law tends to remain valid over decades despite changes in legislation, as demonstrated by the *TA-Luft* and *Janecek* cases, which are still referenced today.

Competition for stricter and clearer air quality law might come in the near future, quite unexpectedly, from Brexit. The United Kingdom has announced the adoption of a new environmental bill that might establish a new legal architecture for air quality;[143] it has been indicated that it might enshrine WHO limits for particulate matter in UK law, opting for a pace-setter attitude.[144] It remains to be seen how accountability and justiciability can also be maintained, without the possibility for citizens and associations to rely on the supportive interpretation of a court as powerful and purpose-driven as the Court of Justice of the EU.

**ORCID**

*Delphine Misonne* https://orcid.org/0000-0003-1613-7119

**Delphine Misonne**, PhD, LLM, is FNRS Research Associate (Belgium), Professor of Environmental Law at Université Saint-Louis Bruxelles, and Head of the Environmental Law Centre (CEDRE).

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[139] J May and E Daly (eds), *Human Rights and the Environment. Legality, Indivisibility, Dignity and Geography* (Edward Elgar 2019); J Knox and R Pejan, *The Human Right to a Healthy Environment* (Cambridge University Press 2018); A Grear and L Kotzé, *Research Handbook on Human Rights and the Environment* (Edward Elgar 2015); B Boer, 'Environmental Principles and the Right to a Quality Environment' in L Krämer and E Orlando (eds), *Principles of Environmental Law* (Edward Elgar 2018) 52, 75.

[140] Sikora (n 40) 255.

[141] Sikora evokes a new type of 'bundle of rights'; ibid.

[142] Case C-444/15, *Associazione Italia Nostra Onlus*, ECLI:EU:C:2016:978 para 4; as repeated in Case C-128/17, *Poland v European Parliament*, ECLI:EU:C:2019:194 para 130 (emphasis added).

[143] Scotford (n 26).

[144] 'WHO Limits for Particulate Matter Will be Enshrined in UK Law, Pledges Gove' (Air Quality News, 16 July 2019).