WRIT OF SUMMONS

Today, the two thousand twenty-one, at the request of the foundation **Emission Claim Foundation**, with its registered office and principal place of business at Barbara Strozzilaan 101 (1083 HN) in Amsterdam, in this case choosing domicile at 16 Molenwerf (1014 BG) in Amsterdam at the office of Kennedy Van der Laan NV, from which office Mr C. Jeloschek will be appointed lawyer in this case and will act as such:

SUMMONSED:

- 1. The limited liability company **Stellantis NV**, with its registered office at (1175 RA) Lijnden and with its principal place of business at Lemelerbergweg 12 (1101 AJ) in Amsterdam, serving my writ at this address and leaving a copy of this with:
- 2. The limited liability company **Peugeot Nederland NV**, with its registered office in Utrecht and with its principal place of business at Lemelerbergweg 12 (1101 AJ) in Amsterdam, serving my writ at this address and leaving a copy of this with:
- 3. The private company with limited liability **Citroën Nederland BV**, with its registered office and principal place of business at Lemelerbergweg 12 (1101 AJ) in Amsterdam serving my writ at this address and leaving a copy of this with:
- 4. The private company with limited liability **Opel Nederland BV**, with its registered office in Breda and with its principal place of business at Lemelerbergweg 12 (1101 AJ) in Amsterdam, serving my writ at this address and leaving a copy with:
- 5. The company under foreign law **General Motors LLC**, with its registered office at 300 Renaissance Center, Detroit, Michigan 48265, United States of America
 - to this end, pursuant to Article 55, paragraph 1 of the Dutch Code of Civil Procedure, I have served my writ to the public prosecutor's office at the Amsterdam District Court, where I have provided two copies with the translation of these in the English language in Amsterdam at IJdok 163 and left them with:

employed and present there.

- It is requested that this writ accompanied by the translation of those documents in the English

language be served on the American company General Motors LLC, with its registered office at 300 Renaissance Center, Detroit, Michigan 48265, United States of America in accordance with Articles 3 to 6 of the Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil and Commercial Matters of 15 November 1965 (the "Convention"), by service having regard to the forms in the law of the requested Member State for the service of documents drawn up in that country and intended for persons residing there, whereby the (central) authority referred to in Article 6 of the Convention is also requested to return a copy of this writ, accompanied by the declaration referred to in Article 6 of the Convention.

- the charges amounting to USD 95.00 will be transferred in a timely manner to Wells Fargo Bank, account no. 2007107119, quoting Swift Code: WFBIUS6S, 1763 4th Ave South, Seattle, Washington 98134 USA quoting the company incorporated under its laws General Motors LLC, located at 300 Renaissance Center, Detroit, Michigan 48265, United States of America;
- Furthermore, a copy of this writ accompanied by the translation of those documents into the English language will be sent by me without delay by registered letter to the address of the company under American law General Motors LLC, aforesaid;
- and furthermore, in accordance with Article 10(b) of the Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil and Commercial Matters of 15 November 1965, I have today sent a copy of this writ without exhibits, with translation thereof in the English language, to a licensed bailiff, officer or other authorized person in the State of Michigan (United States of America) to request that service or notification be served on General Motors LLC subject to the forms provided in the laws of the State of Michigan (United States of America)
- 6. The company under foreign law Robert Bosch GmbH, with its registered office and principal place of business at Robert-Bosch-Platz 1 70839 in Gerlingen-Schillerhöhe in Germany to which I, pursuant to Article 56 paragraph 2 of the Code of Civil Procedure and in my capacity as transmitting agency within the meaning of the EC Service Regulation and the EC Service Regulation Implementing Act serve this writ in the following ways:
 - i. <u>First</u>, pursuant to paragraph 2 of the aforementioned Article 56 of the Code of Civil Procedure and in accordance with Article 15 of the EC Regulation on the service of documents, by sending two copies of the present document, with a translation thereof into English, to the receiving agency in Germany at the address:

Amtsgericht Ludwigsburg Schorndofer Strasse 39 71638 Ludwigsburg Germany

This dispatch was effected today by me, the bailiff, by UPS, together with the form referred to in Article 4(3) of the EC Regulation on the service of documents, which was completed by me, the bailiff, in the German language.

I requested the receiving agency to serve this writ with translation into the English language in accordance with the law of the country in which the defendant's address is situated and to return one copy of this writ with the certificate as referred to in Article 4, fifth paragraph in conjunction with Article 10 of the EC Regulation on service of documents;

ii. <u>Secondly</u>, pursuant to paragraph 3 of the aforementioned Article 56 of the Code of Civil Procedure and in accordance with Article 14 of the EC Regulation on the service of documents, by directly sending a copy of the said document, with a translation thereof into the English language, and simultaneously accompanied by the model form referred to in Article 8(1) of the EC Regulation on the service of documents in Annex II.

This dispatch was effected today by me, the bailiff, by UPS and was sent to the aforementioned address of the defendant with the notice that the defendant may refuse to accept these documents sent directly by returning the aforementioned standard form and the documents served to me, the bailiff, within one week of receipt, if they are not drawn up in or accompanied by a translation into one of the following languages:

- a. a language the defendant understands; or
- b. the official language of the Member State addressed or, if there are several official languages in that Member State, the official language or one of the official languages of the place where service is to be effected.

and further, in respect of:

a. defendant 6 by sending a Dutch and English copy by e-mail to Daan Beenders, LLM, who as apparent from his (previous) response to the liability claim of Kennedy Van der Laan dated 22 December 2020 regarding the proceedings already pending by the Emission Claim Foundation against Mercedes and (among others) Bosch (C/13/686493 / HA ZA 20-697) will act as the defendant's attorney via<u>daan.beenders@debrauw.com</u>.

TO:

On Wednesday 27 October two thousand twenty-one in the morning at 10:00 am, not in person but represented by a lawyer, to appear at the hearing of the Amsterdam District Court, which will be held in the courthouse at Parnassusweg 280 (1076 AV) in Amsterdam.

WITH THE EXPRESS NOTICE THAT:

- a. if the defendant fails to provide a lawyer, or pay the court registry fees referred to below in time, and fails to observe the prescribed deadlines and formalities, the court will grant leave to proceed in default of appearance against the defendant and will award the claim, unless the court deems it to be unlawful or unfounded;
- b. if at least one of the defendants appears in court and has paid the court fee in time, a single judgment shall be rendered between all the parties, which shall be regarded as a judgment in a defended action;
- c. if each of the defendants appears in court, a court registry fee will be charged, to be paid within four weeks from the time of appearance;

- d. the amount of the court fees is stated in the most recent annex to the Civil Cases Court Fees Act, which can be found on the website, among other places <u>www.kbvg.nl/griffierechtentabel;</u>
- e. in the case of an indigent person, a court fee established by or on account of indigent law will be imposed, if said person has submitted the following by the time at which the court registry fees are to be levied:
 - a copy of the decision to assign counsel, referred to in Article 29 of the Legal Aid Act [Wet op de Rechtsbijstand] or, if this is not possible due to circumstances reasonably not attributable to him, a copy of the application referred to in Article 24, paragraph 2 of the Legal Aid Act, or
 - 2. a statement from the board of the Dutch Legal Aid Council, as referred to in Article 7, paragraph 3, subsection e of the Legal Aid Act, showing that his income does not exceed the incomes referred to in the order in council pursuant to Article 35, paragraph 2 of that Act;
- f. of defendants who appear before the same attorney at law and draw similar conclusions or put forward similar defences, a joint court fee is levied only once on the basis of Article 15 of the Civil Cases Registrar's Duties Act;
- g. that the Foundation is obliged, on pain of inadmissibility, to register this summons in the central register for collective actions as referred to in art. 3:305a paragraph 7 of the Dutch Civil Code;
- h. that this note means that unless the District Court immediately declares the Foundation inadmissible – the Court adjourns the case until a period of three months after the entry in the central register has expired;
- i. that after the expiry of this period, the handling of the case will be continued in the state in which it is located, unless pursuant to art. 1018d paragraph 2 DCCP this term has been extended or another collective action has been instituted for the same event; that the cause list date referred to in art. 128 paragraph 2 DCCP for taking the statement of defence by the Court will be set at a term of six weeks after the date referred to in art. 1018c paragraph 3 DCCP to has expired.

IN ORDER:

To take cognizance at the hearing of the following claims and grounds of plaintiff, the Emission Claim Foundation, against which defendants may put forward a defence.

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Part I. INTRODUCTION

1. INTRODUCTION

The dispute in a nutshell

- 1.1. This is the writ of summons from the Emission Claim Foundation ("Foundation") to:
 - Stellantis NV, which will be the new owner of (among others) the Peugeot, Citroën and Opel car brands from 17 January 2021 after the merger between Fiat Chrysler Automobiles NV ('FCAO') and Peugeot SA ('PSA') ("Stellantis");
 - its Dutch importers that bring the vehicles of the Peugeot, Citroën and Opel brands onto the Dutch market and are (jointly) responsible for the marketing and advertising in this regard in the Netherlands ("Importers");
 - General Motors LLC ('**GM**') who owned the Opel car brand until July 2017 and then sold that brand to (the French) PSA; and
 - Robert Bosch GmbH which supplies an essential part for Peugeot, Citroën and Opel (diesel) vehicles ("Bosch").
- 1.2. In short, with this summons, the Foundation is claiming collective compensation for the damage suffered by the victims of the diesel fraud committed by the defendants in the Netherlands and a number of declaratory judgments regarding the consequences of this diesel fraud. This is the third summons¹ which the Foundation has issued in the Netherlands in accordance with its aim to represent the interests of victims of diesel fraud, i.e. (legal) persons who have purchased or leased one or more manipulated (diesel) vehicles.
- 1.3. As this summons relates to events prior to the creation of the new Stellantis group, the Foundation will also appoint the former owners of these brands as actors as and when necessary due to the (historical) context. This does not alter the fact that their actions are attributed to Stellantis, or at least that Stellantis (as the successor legal entity) is responsible for these. A reference to Stellantis in this writ of summons can therefore always be read as a reference to the relevant (then) owner. In some cases, for the sake of readability, the Foundation will sometimes only refer to the relevant car make itself.
- 1.4. Diesel engines emit extremely harmful nitrogen oxides ("NOx"). To reduce emissions of this unwanted by-product of diesel combustion, Peugeot, Citroën and Opel diesel vehicles primarily use exhaust gas recirculation (EGR), where the exhaust gases are routed back to the engine's intake and mixed with fresh incoming air. Then after-treatment technologies ensure that the emissions are further reduced. This is done, in addition to a particulate filter for diesel particulates, by either *selective catalytic reduction* ('SCR') whereby NOx is filtered from the emissions with a catalytic converter and converted into less harmful substances by means of a urea solution, or by means of the so-called *Lean NOx Trap* where NOx is 'trapped' and converted into less harmful substances.
- 1.5. When it introduced its own technology (SCR) in 2013, PSA, the then owner of Peugeot and Citroën, proudly announced that this technology should reduce NOx emissions by up to 90%:

¹ The first summons concerns the diesel fraud of Mercedes and was served on Daimler et al and Bosch on 30 December 2020 (role and case number C/13/686493 / HA ZA 20-697). The second summons relates to Renault's diesel fraud and was served on Renault et al and Bosch on 26 May 2021 (role number C/13/702519).

"Blue HDi technology, a major step forward in the reduction of pollutant emissions, reduces the nitrogen oxide (NOx) emissions of diesel engines to levels comparable with those of petrol engines, while safeguarding the intrinsic advantages of diesel engines in terms of driving pleasure, fuel consumption and CO2 emissions."

(...)

A post-treatment system called selective catalytic reduction (SCR), positioned upstream of the additive particulate filter and which eliminates up to 90% of the nitrogen oxide emitted by the engine."²

1.6. GM, the then owner of Opel, also announced in 2014 that its own 'Blue Injection' system (for its top models) met the new (higher) emission standards. Opel's website even stated that this technology would be good for the environment:

"When you drive a vehicle with BlueInjection technology, you reduce toxic nitrogen oxide (NOx) emissions (...), thus significantly cleaner on the road."³

1.7. This message was also sold by PSA to all (potential) buyers in the Netherlands. As of 2013, PSA maintained that NOx emissions from Peugeot diesel vehicles would be reduced by 90%. For example, in 2013 it wrote on its website:

"BlueHDi is the name of Peugeot's Euro6 diesel engines. Thanks to the technology of these engines, NOx (nitrogen oxide) emissions are reduced by more than 90%. The CO2 emissions and fuel consumption are also lower, while 99.9% of the particulate matter is retained by the particulate filter".⁴

1.8. With regard to the Citroen brand, PSA also assured (potential) buyers from the Netherlands from 2013 that the diesel cars it produced were economical and clean. As it writes on its website in March 2018:

"The new BlueHDi 120 S&S, 150 S&S and 180 S&S diesel engines, which meet Euro 6 standards, are notable for their low fuel consumption and low CO2 emissions (from 100 g/km). In addition to the aforementioned engines, there is now also a BlueHDi 100 from 79 g/km.

The SCR (Selective Catalytic Reduction) system installed upstream of the particulate filter, a technology used exclusively by PSA, uses an additive to treat harmful gases faster than competitive systems.

The NOx (nitrogen oxide) is converted into water vapour and nitrogen (inert gas) through a chemical reaction with the additive AdBlue ."⁵

1.9. Even after the first reports about the dieselgate scandal (at VW) appeared in the media, PSA continued to extol the fact that its BlueHDi technology complied with all applicable laws and regulations and is future-proof:

"BlueHDi technology exceeds the Euro 6 standards that will come into effect in September 2014 for new models and in September 2015 for all new cars. This technology will be applied to all diesel models of the brand and offers the best potential for future emissions standards."⁶

1.10. This all turned out to be a huge deception. Actual emissions tests have shown that the NOx emissions from Peugeot, Citroën and Opel diesels are sometimes up to 14 (!) times higher than (i) the maximum emission levels allowed by European emission standards, (ii) what (the predecessors of) Stellantis and its Importers in the Netherlands advertised and (iii) what a consumer can expect from the

² This statement, together with other statements and the source references, will be discussed in section 5.

³ Idem.

⁴ Idem.

⁵ Idem.

⁶ Idem.

emission control systems used in these vehicles. In reality, the aforementioned diesel cars are among the highly polluting diesels that have been tested by various bodies in Europe and the official emissions tests on the roller bench were deliberately manipulated to appear (only) on paper as a 'clean' cars. The diesel cars of Peugeot, Citroën and Opel are therefore also referred to as **Rigged diesels** in this writ of summons.

- 1.11. Stellantis (as the legal successor of the former owners of Peugeot, Citroën and Opel) thus fits in the list of European car manufacturers that have committed fraud on a large scale, and possibly in collaboration, in connection with the emission emissions of their diesel engines. In 2015/16, this diesel scandal (also known as Dieselgate) came to light involving Volkswagen, Audi, Porsche and Fiat Chrysler, among others. Later, brands such as Peugeot, Renault, Citroen, Opel and Mercedes were also found to have cheated with diesel engines. In all cases, the car manufacturers circumvented the legally required emissions standards by using prohibited manipulation devices, developed in part by their supplier Bosch, which (partially) disabled emission control systems when the vehicles were not in a test environment.
- 1.12. It is now an established fact that this manipulation took place on a large scale. This is evident from numerous investigations, rulings and actions by regulators, courts and public prosecutors in (among others) the US and the EU, including Germany as the country where Dieselgate originated. In France, too, an investigation was conducted and is still being conducted at the moment into (among other things) the role of Peugeot and Citroën in the Dieselgate scandal. These government investigations, as well as various tests by independent institutes, show that the rigged diesels used prohibited manipulation devices: devices with the sole purpose of manipulating emissions tests to achieve good test results. The Peugeot, Citroën and Opel cars did this among other things by signalling when the car was tested on the roller bench and when the car was actually in use. Also relevant was whether the car was tested 'cold' or with an already warm diesel engine.
- 1.13. However, this was not the only manipulation applied. The aforementioned investigations also showed that Peugeot and Citroën switched off their emission-limiting systems when the ambient temperature was low (around 7 degrees). With Opel, this would already happen at an outside temperature of 17 degrees Celsius. As a result, all harmful substances are emitted unfiltered and unhindered. According to Peugeot, Citroën and Opel, this was, in short, necessary to protect the engine. This 'declaration' has not only been labelled as inadequate by a judgment of the Court of Justice of the EU of 17 December 2020, but is also inconsistent with the fact that the average monthly temperature in the Netherlands (but also in a significant part of the other EU countries) is never more than 17 degrees Celsius and is below 7 degrees during half of the year, so that when using the vehicles in the Netherlands and other EU countries the emission-limiting systems do not work most of the time with the result being NOx emissions that are far too high.
- 1.14. Stellantis (as the legal successor to the former owners of Peugeot, Citroën and Opel) did not act alone; its supplier Bosch is at the heart of the diesel scandal in Europe and the United States. Bosch supplies an essential part for diesel vehicles to (among others) Volkswagen, General Motors, Mercedes and Fiat Chrysler America, namely the *Electronic Diesel Control* (the "EDC17")⁷ which enabled the car manufacturers to implement the defeat devices. Without Bosch's active cooperation in the development and maintenance of the EDC17 and its software, Stellantis would not have been able to commit the large-scale diesel fraud. Bosch not only develops, produces and supplies the

⁷ The ECD17 is also referred to as ECU (*Electronic Control Unit*).

EDC17 to Stellantis, but also works closely together in testing, calibrating, parameterising and setting up the software in the EDC17 that controls the entire combustion process.

- 1.15. Stellantis, at least its legal predecessors, did not want to disclose the motives for committing this large-scale fraud. However, it is suspected that they committed fraud to limit or prevent the adverse effects of the operation of emission control systems, such as increased fuel consumption and a reduced driving experience, for their customers. They therefore have the best of both worlds: by only (fully) switching on the emission control systems during the official test conditions, Peugeot, Citroën and Opel appear to be clean diesel cars, while customers still have the full ease of use of the vehicles outside the test environment. However, this full ease of use without the knowledge of the customers comes at the cost of NOx emissions, which are up to 14 times higher than legally permitted. In this way, GM and PSA were able to systematically commit fraud and violation of the Emissions Regulation⁸ thus maximizing their profits for years on end, at the expense of their customers, the environment and public health.
- 1.16. The consequences of this balancing of interests are enormous. Experts calculated that around 44,000 healthy years of life were lost in Europe due to the fraud of Volkswagen alone, as a result of excess mortality and diseases caused by the inhalation of the particulate matter formed by the extra emissions of nitrogen oxides. This number would have risen to 116,000 lost years of healthy life years if Volkswagen had not adjusted its rigged software through recalls.
- 1.17. At first glance, this seems like an abstract way of framing the consequences of Rigged diesels. In the meantime, however, it has also become concretely clear how harmful the actions of the car manufacturers have been; In December 2020, a pathologist in London determined for the first time that NOx emissions from road traffic had been the direct cause of death for a nine-year-old girl.⁹
- 1.18. Despite the focus on Volkswagen in 2015, GM and PSA were equally guilty of large-scale fraud using rigged software in their diesel vehicles. However, unlike Volkswagen, they have not taken any responsibility, nor is Stellantis doing so at present.
- 1.19. In addition to the obvious damage to the environment and public health, users of the Rigged diesels from Peugeot, Citroën and Opel have suffered financial damage as a result of the fraudulent actions of GM and PSA, for which Stellantis is now liable. They overpaid for cars that are not the clean diesels that were promised and which instead flouted all applicable emission standards. This is even more objectionable because vehicles of the Peugeot, Citroën and Opel brands belong to the middle segment of the car market and are known, among other things, as "family cars". It is therefore precisely middle-income earners who are affected by this fraud. This effect is not only financial but also material. Some of these diesel cars are already being banned from certain European cities because of the extreme risk they pose to human health. Owners of these Rigged diesels are therefore restricted in their use of the vehicles and it is very likely that further restrictions will be implemented in the future, making these vehicles practically unusable at some point.
- 1.20. With this writ of summons, the Foundation wants to force Stellantis, its Importers, GM and Bosch to compensate for the damage suffered by the victims (in the Netherlands). The Foundation believes that it is the (most) suitable party for this, now that it has already instituted two collective actions in the Netherlands, namely against Daimler (Mercedes) and against Renault, in which proceedings it

⁸ Regulation (EC) No. 715/2007 on type-approval of motor vehicles with regard to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and access to vehicle repair and maintenance information ("Emissions Regulation").

⁹ S. Laville, 'Air pollution a cause in girl's death, coroner rules in landmark case', *The Guardian* 16 December 2020 (**Exhibit 1**).

has also involved Bosch because Bosch is responsible together with these car manufacturers. for the diesel fraud. In that context, the Foundation can also benefit from its close ties to the American law firm Hagens Berman which has initiated similar class-action proceedings in the United States on behalf of the American buyers or users of Rigged diesels against various car manufacturers and Bosch, including Volkswagen, Fiat Chrysler, General Motors and Daimler, which proceedings have successfully resulted in major settlements.

1.21. The Foundation therefore believes that because of these specific experiences and settlement results with various car manufacturers and Bosch in the United States, as well as its access to and experience with its own underlying investigations of rigged diesels and its own expertise built up during the ongoing civil lawsuits, it is the appropriate party to stand up for the interests of the victims of the Rigged diesels in the Netherlands.

Writ of summons format

- 1.22. In Part I of this writ of summons, the Foundation will first consider the parties involved(§2) and its own background(§3).
- 1.23. Part II then deals with the facts. Against the background of the danger posed by diesel engines and the need for strict emission standards to reduce emissions (§4), the promise of the manufacturers of Peugeot, Citroën and Opel that they wanted to realize these standards through different emission control systems will be discussed (§5). The Foundation will explain however that this promise has not been kept and that they instead knowingly chose to allow the Rigged diesels to circumvent the emission standards, as unequivocally follows from various reports and investigations by independent bodies (§6) and (ongoing) investigations by public authorities in France and elsewhere in Europe (§7). The Foundation will also discuss Bosch's role as the producer and supplier of the rigged software (§8).
- 1.24. In part III, the Foundation will present the legal qualification (§9) and discuss the consequences of the defendants' actions. In doing so, it will also consider the damage as shall be further substantiated at a later stage of these proceedings (§10). The Foundation will then demonstrate that all admissibility requirements have been met and request appointment as Exclusive Representative Entity(§11). Finally, the Foundation briefly discusses the (known) defences of the defendants (§12).
- 1.25. In Part IV, the Foundation will conclude with some comments on relevant IPR aspects(§13) and evidence(§14).
- 1.26. For a complete listing of all topics covered, the Foundation refers to the table of contents of this writ of summons following the citations.

2. THE PARTIES INVOLVED I - THE DEFENDANTS

2.1. The defendants have already been introduced in the introduction. The background of all defendants will be briefly discussed below.

Stellantis NV

2.2. As mentioned in the introduction, Stellantis became the new owner of Peugeot, Citroën and Opel from 17 January 2021. This was preceded by a merger between PSA and FCA whereby PSA became part of FCA. This transaction was approved by the EU Commission at the end of 2020 and announced in the press release as follows:

"Today's decision follows an in-depth investigation of the proposed merger by the Commission, which combines FCA and PSA, two large global automotive companies. Both companies are active worldwide, with a strong manufacturing base in the European Economic Area (EEA). The transaction will lead to the creation of the fourth largest automotive group in the world, to be called "Stellantis".¹⁰

2.3. The merger eventually took place on 16 January 2021. FCA then changed its name to Stellantis a day later. In the annual accounts of Stellantis (**Exhibit 2**: Annual Report 2020), this is described as follows:

"On January 16, 2021, Peugeot SA ("PSA") merged with and into Fiat Chrysler Automobiles NV, with Fiat Chrysler Automobiles NV as the surviving company in the merger (the "merger"). On January 17, 2021, the combined company was renamed Stellantis NV, the current members of the board of directors were appointed and the Stellantis articles of association became effective. On this date, the Stellantis management and board of directors collectively obtained the power and ability to control the assets, liabilities and operations of both FCA and PSA. As such, under IFRS 3, Business Combinations, 17 January 2021 is the acquisition date for the business combination."

- 2.4. As already indicated by the EU Commission, this gave rise to what is number 4 on the *worldwide* market of car manufacturers. The car brands that Stellantis acquired from PSA (Peugeot, Citroen and Opel) generated annual sales of EUR 74.7 billion in 2020 and a net profit of EUR 3.6 billion (Exhibit 3: PSA Annual Report 2019). The annual turnover of the (old) FCA in 2020 amounted to EUR 86.8 billion (Exhibit 4: Annual report 2020).
- 2.5. As mentioned in the introduction and which will be discussed in detail, PSA and GM have manipulated the Rigged dissels in various ways, causing them to emit much higher emissions than is allowed and advertised. As the legal successor and current producer, Stellantis is (ultimately) responsible for this and is therefore liable for all damage that has arisen from this.
- 2.6. Stellantis is the parent company of the Stellantis group (of which the Importers became part from January 2021). It is therefore also liable for all marketing, advertisements and other commercial expressions intended for and aimed at the Dutch market that are made by the Importers in addition to GM and PSA. It is therefore responsible for the (specific) deception of the Dutch market.

Peugeot Nederland NV, Citroën Nederland BV and Opel Nederland BV: importers for the Dutch market

- 2.7. Peugeot Netherlands, Citroën Netherlands and Opel Netherlands are the Amsterdam-based importers of the Rigged diesels destined for the Dutch market. (Exhibit 5Articles of Association: Peugeot Nederland NV, Citroën Nederland BV and Opel Nederland BV). They are according to the Chamber of Commerce subsidiaries of Automobiles Peugeot SA, Automobiles Citroën SA and General Motors Europe Holdings, SL and therefore part of the Stellantis group. They sell passenger cars and other vehicles for the commercial market.
- 2.8. The Importers not only imported the Rigged diesels into the Netherlands, but also played a central role in the marketing, advertisements and other commercial expressions regarding the Rigged diesels throughout the Netherlands. For that reason, they are jointly and severally liable (in addition to Stellantis) for the false and misleading marketing expressions that have led, among other things, to the damage incurred by the victims.

¹⁰ <u>https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2506</u> (visited on 1 July 2021).

General Motors LCC

2.9. Until July 2017, GM owned the Opel car brand, which was then sold to PSA (together with Vauxhall, its English 'sister'). This transaction was also first approved by the EU Commission in July 2017.¹¹ Incidentally, this did not result in a merger, but an asset deal, according to the EU Commission:

The "Transaction" consists of the acquisition of all assets and shareholdings related to Opel. As a result, PSA will solely control Opel. The Transaction therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.¹²

2.10. Because it is not clear from the publicly available sources in both the EU and the US (where this transaction was reported to the regulator, the US Securities and Exchange Commission) whether GM transferred all activities and liabilities - including for the past - to PSA, it is conceivable that GM has retained certain liabilities¹³ and could therefore still be (partly) liable for the diesel fraud at Opel. That is why the Foundation has issued a separate letter to GM as part of this procedure, specifically requesting clarification of this matter (Exhibit 6). Since GM has not responded to this, the Foundation is forced to also involve GM in the present proceedings.

Robert Bosch GmbH

- 2.11. Robert Bosch GmbH is a German electronics company with 2018 annual sales of 77.9 billion euros. The head office is located in Gerlingen-Schillerhöhe (near Stuttgart) in Baden-Württemberg.¹⁴ With some 340 affiliated companies, the Bosch Group is divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology.
- 2.12. The Mobility Solutions business sector supplies components to the automotive industry, including the Diesel Systems division. Through this division, Bosch develops, manufactures and supplies the hardware and software (the previously mentioned EDC17) and associated services at issue in these proceedings.
- 2.13. From at least 2005,¹⁵ Bosch was actively involved in the development and implementation of illegal defeat devices specifically designed to allow diesel vehicles sold in the EU (including the Netherlands) and America to evade emission standards. These vehicles also include the Rigged diesels from Peugeot, Citroën and Opel.

3. THE PARTIES CONCERNED II - THE EMISSION CLAIM FOUNDATION

3.1. The Foundation was established to solve the problem described in the introduction, namely to ensure that all victims receive compensation for the damage they have suffered as a result of the wrongful acts of the defendants by, in short, having paid too much for the Rigged diesels of which the victims are or were the owner and/or lessee. This involves finding a solution for the efficient settlement of the claims of those represented by the Foundation which, on the one hand, achieves the greatest possible degree of finality and, on the other, does as much justice as possible to the actual situation and the interests of all parties involved.

¹¹ See the press release at https://ec.europa.eu/commission/presscorner/detail/en/IP 17 1916 (accessed 1 July 2021).

¹² See the report at <u>https://ec.europa.eu/competition/mergers/cases/decisions/m8449_343_3.pdf</u> (under point 3)

¹³ The public agreement dated March 4, 2017 refers to "Other Excluded Liabilities" that were retained by GM but which cannot be clarified without the relevant (missing) appendix to the agreement.

¹⁴ Excerpt Robert Bosch GmbH Commercial Register Ambtsgerichts Stuttgart dated December 14, 2020 (Exhibit

⁷). ¹⁵ Back then with the predecessor of its hardware and software, the EDC16, which was succeeded in 2007 by the EDC17.

- 3.2. The Foundation believes it can achieve this by directing its claims exclusively at the parties *primarily* responsible. These are defendants, who together ensured that software in the Rigged diesels could be adjusted in such a way that it allowed the emission reduction systems to be operational during the official certification tests but switched off in various situations on the road and/or made misleading statements about this to end users. Stellantis and its Importers also misled the entire market by, in short, touting the Rigged diesels as "clean" (and also, in the case of Peugeot and Citroën, by applying an energy label) although in practice they were not and incidentally never will be because rectifying the non-conformity cannot lead to a situation in which the emission standard is always met.
- 3.3. They are also defendants that could have always put a stop to the fraudulent act but consistently failed to do so, even though they were always aware of it, or at least should have been. Although claims against other parties, such as the official dealers of the Rigged diesels in the Netherlands, are also conceivable, the Foundation has chosen not to involve them in this procedure for reasons of efficiency and effectiveness. One reason for this is that the Foundation assumes that the dealers of Rigged diesels in the Netherlands were not aware of the unlawful actions of the car manufacturers and Bosch. In addition, the impact on the market of challenging the dealer purchase agreements in terms of non-conformity (by virtue of their capacity as vendors of the diesel) would, in the Foundation addresses the defendants as the parties primarily responsible for the damage. In this way, the Foundation aims to achieve the greatest possible finality in the most efficient manner possible for the damage caused by the defendants, without unreasonably harming the interests of, in all probability, ignorant third parties.
- 3.4. The Foundation was established on 11 December 2020. According to its articles of association, it has the following objectives:

"The Foundation's purpose is to represent the interests of the Aggrieved Parties who purchased or leased one or more Manipulated Vehicles, including but not limited to:

(a) to determine and investigate the course of events that led to and relate to (i) the development and installation of one or more manipulation devices in Manipulated Vehicles and (ii) the sale and/or delivery of Manipulated Vehicles to the Aggrieved Parties;

(b) To promote the interests of the Aggrieved Parties and to represent the Aggrieved Parties in legal proceedings within the Netherlands and in other jurisdictions, such as civil, criminal and administrative proceedings, as the case may be;

(c) represent the interests of the Aggrieved Parties worldwide;

(d) to obtain and distribute financial compensation for (part of) the loss that the Aggrieved Parties assert they have suffered;

(e) to represent the collective interests of the Aggrieved Parties in environmental cases, in legal proceedings within the Netherlands and in other jurisdictions, such as civil, criminal and administrative proceedings, as the case may be;

(f) anything related to or conducive to the foregoing, all in the broadest sense of the word;"16

3.5. In these proceedings, the Foundation represents the interests of all (initial and subsequent) purchasers and all lessees of Rigged diesels that, in the period between 1 September 2009 and 1 September 2019 (the "**Relevant Period**"),¹⁷ were imported into the Netherlands, registered in the

¹⁶ Articles of Association Emission Claim Foundation dated 11 December 2020 (Exhibit 8).

¹⁷ This period is related to the introduction of the applicable emission standards for diesel cars in Europe, namely the Euro 5 standard in September 2009 and the temporary Euro 6.d TEMP standard in September 2019.

Netherlands (with the RDW) and/or sold or leased in the Netherlands, always with the exception of Defendants. This group consists of both consumers and professional parties (such as rental companies, lease companies, companies with their own vehicle fleet or taxi companies), collectively referred to as "**the Aggrieved Parties**".

- 3.6. Promoting the interests of the Aggrieved Parties is one of the Foundation's objectives under its articles of association. Although the definition of Aggrieved Parties implies that the Foundation also represents the interests of persons or entities located in other jurisdictions, the vast majority of the Aggrieved Parties will be resident or established in the Netherlands and will therefore have suffered loss or damage here. Of course, this does not affect the possibility for foreign Aggrieved Parties to *opt-in* to a settlement or collective settlement of the damage.
- 3.7. The Foundation primarily submits its claims under the Settlement of Large-scale Losses or Damage (Class Actions) Act, which came into effect on 1 January 2020 ("WAMCA"). In section 11 it will discuss that this law applies, that it is admissible in these proceedings, and that it should be designated as an Exclusive Representative Entity. In the alternative insofar as the WAMCA is not applicable the Foundation institutes the declarations it has claimed under the Class Actions (Settlement of Large-scale Losses or Damage), as it applied before the WAMCA came into effect.

Part II. THE FACTS

4. STRICT EMISSION STANDARDS TO COMBAT DANGEROUS DIESEL EMISSIONS

4.1. Diesel engines have been a major challenge for car manufacturers for many years. On the one hand, these engines are very powerful and fuel efficient, but on the other hand, they emit many dangerous and polluting substances during combustion. In a general sense, the greater the power and fuel efficiency of the diesel engine, the dirtier and more harmful the emissions become.

Hazardous by-products from diesel (engine) combustion

- 4.2. Diesel fuel differs from petrol to a significant degree. Due to longer hydrocarbon chains, diesel contains more energy and can also be converted into energy more efficiently. Diesel engines can convert more than 45% of the fuel energy to mechanical energy, while petrol engines only convert 30% of the fuel to mechanical energy. Diesel therefore has a significantly higher efficiency than petrol.¹⁸
- 4.3. The differences between petrol and diesel mean that a diesel engine functions significantly differently from a petrol engine. In a diesel engine, air is forced under high pressure into the combustion chamber, causing the air to heat up and the diesel present in the engine's combustion chamber to combust spontaneously. This is in contrast to spark ignition (through a spark plug) in the typical petrol engine. The more powerful compression of the pistons of a diesel engine produces greater torque, and thus more mechanical power.
- 4.4. This greater energy and fuel efficiency comes with the significant drawback of diesel combustion: diesel produces dirtier and more dangerous emissions, including soot and particulates. However, another harmful by-product of diesel combustion is particularly relevant to this writ of summons; the NOx (i.e., nitrogen oxides), already mentioned in the introduction, which include various nitrogen-and oxygen-containing chemical compounds that are only formed at high temperatures, such as in the combustion of diesel oil.
- 4.5. The hazardous substances emitted by diesel engines are not a new phenomenon. In 2012, the World Health Organization declared emissions from diesel vehicles to be carcinogenic and about as dangerous as asbestos.¹⁹ Particularly in urban areas, diesels cause significant health problems through emissions of soot, particulate matter and nitrogen oxides. Diesel engines are therefore subject to increasingly strict standards in order to reduce harmful emissions as much as possible.
- 4.6. The nitrogen problem is not unknown in the Netherlands and has had a much greater impact than in surrounding countries. Since the Council of State drew a line under the Programme to Combat Nitrogen in 2019, far-reaching measures have been taken in the Netherlands to limit the emission of harmful nitrogen oxides, including the nationwide reduction of the speed limit on motorways to 100 km/h, the halting of more than 18,000 permit procedures and the halting of numerous construction projects. The consequences are enormous and have led to major protests.
- 4.7. The fact that the Netherlands is taking such far-reaching measures to reduce NOx is not without reason, however. NOx pollution contributes to the formation of nitrogen dioxide and particulate matter, and reacts with sunlight in the atmosphere to form the greenhouse gas ozone. Exposure to these pollutants leads to serious health risks, including asthma attacks and other respiratory

¹⁸ US Department of Energy, 'Just the Basics: Diesel Engine' (<u>https://www1.eere.energy.gov/vehiclesandfuels/pdfs/basics/jtb_diesel_engine.pdf</u>) August 2003 (**Exhibit 9**).
¹⁹ WHO, IARC: Diesel Engine Exhaust Carcinogenic, Press Release No. 213, 12 June 2012 (**Exhibit 10**).

diseases. Exposure to ozone and particulate matter can lead to premature deaths from respiratory or cardiovascular diseases. Children, the elderly and people with existing respiratory diseases are at risk of health effects from these pollutants. NOx can also cause respiratory problems, headaches, chronically impaired lung function, eye irritation and corroded teeth. Elevated NOx concentrations are even associated with increased infections and a more severe course of COVID-19.²⁰

- 4.8. In 2018, 16 EU Member States (including the Netherlands) recorded NOx concentrations above the jointly agreed annual limits. The European Environment Agency noted here that the transport sector was responsible for 47% of NOx emissions in the EU in 2018. In particular, road transport had a significantly higher impact on the exposure of the population to dangerous nitrogen dioxide. This is because emissions from road transport are close to the ground and distributed over densely populated areas. For this reason, the European Environment Agency has stated that the reduction of NOx concentrations needs to be focused on traffic and urban locations in order to meet the annual limit value.²¹
- 4.9. A graphical representation of the emission of harmful nitrogen oxides in the Netherlands shows how large the share of traffic (with diesel engines as the largest polluter) in the emission of harmful nitrogen oxides is: road traffic has been the largest source of harmful nitrogen oxides since at least the 1990s, while road traffic emissions are dominated by diesel engines.²²



Uitstoot stikstofoxiden (NOx) in kiloton

Bron: <u>Adviescollege Stikstofproblematiek</u> • * Handel, diensten en overheid

²⁰ S. van Mersbergen, 'Coronavirus appears to strike much harder in areas with intensive livestock farming', Het Parool 30 April 2020 (**Exhibit 11**).

²¹ EMA, Air quality in Europe - 2020 report, ISSN 1977-8449, September 2020 (Exhibit 12).

²² TNO, 'Fact sheet on emissions and deposition of nitrogen in the Netherlands', October 2019 (Exhibit <u>13</u>).



Figuur 1. Herkomst van de emissies van ammoniak (NH₃), stikstofoxiden (NO_x) en totaal reactief stikstof (Nr)¹ naar sector in 2017⁴.

Consequences of pollution by diesel cars: public health and the environment

- 4.10. Diesel engines therefore have an unprecedentedly large share in NOx emissions in the Netherlands. The impact of harmful NOx emissions from diesel cars was calculated specifically in relation to the Volkswagen diesel scandal which exposed the fraudulent practices of car manufacturers. Research by the University of Nijmegen shows that nine million Volkswagen cars, sold in Europe and the United States between 2009 and 2015, emitted as much as 526 kilotons of nitrogen oxide more than was legally allowed. The diesel fraud committed by Volkswagen has had by far the greatest impact on public health in Europe due to the significantly higher number of European diesel vehicles sold and the higher population density. The environmentalists calculated that as a result of the extra emissions of nitrogen oxides caused by Volkswagen's fraud, a total of almost 45,000 (!) healthy years of life were lost, particularly in urban areas, of which over 44,000 in Europe and almost 700 in the United States. This was due to excess mortality and illnesses caused by inhalation of the particulate matter formed by the extra emissions of nitrogen oxides from the diesels that were rigged. In addition, if Volkswagen does not recall these cars, an additional 72,000 healthy years of life will be lost in Europe due to the excess emissions.²³
- 4.11. Researchers at the Massachusetts Institute of Technology came up with a similar calculation, calculating that the excess NOx emissions attributable to Volkswagen's 2.6 million rigged diesels will cause 1,200 premature deaths in Europe. That study did not take into account the impact of the remaining 6 million Volkswagen diesels sold in Europe, let alone the millions of other rigged diesels sold by other manufacturers such as Stellantis.²⁴
- 4.12. A later study also examined the effect of the combined NOx emissions of all the rigged diesels sold in Europe. According to that study, nearly 10,000 premature deaths can be attributed to NOx emissions from diesel cars in the European Union in the year 2013 alone. About 50% of these deaths

²⁴ P.C. Guillaume ea, 'Public health impacts of excess NOx emissions from Volkswagen diesel passenger vehicles in Germany', *Environmental Research Letters* 12 (2017) 034014 dated 3 March 2016 (Exhibit 15).

 ²³ R. Oldenkamp et al, 'Valuing the human health damage caused by the fraud of Volkswagen', *Elsevier* full. 212, p. 121-127 (Exhibit 14).
 ²⁴ P.C. Guillaume ea, 'Public health impacts of excess NOx emissions from Volkswagen diesel passenger vehicles

could have been avoided if the rigged diesels had complied with mandatory emissions legislation and the car manufacturers had not cheated extensively with the emissions tests.²⁵

- 4.13. How concrete the effects of harmful NOx emissions on human health are is shown by a December 2020 ruling by a London court, which found for the first time that the cause of death of a nine-year-old girl in Lewisham in South-East London was NOx emissions from the nearby road. In this groundbreaking statement, NOx is therefore not so much regarded as a cause of a lost year of healthy life or of other respiratory problems, but as *concrete* cause of death of a nine-year-old girl.²⁶ The ruling confirms the consequences of harmful NOx emissions that should not be underestimated, and underlines the seriousness of the years of systematic fraud committed by Rigged diesel manufacturers such as Stellantis.
- 4.14. Followers of the case and experts see the verdict as a milestone for individuals and organizations fighting against NOx pollution, which is particularly severe in urban areas and caused by diesel vehicles.
- 4.15. In addition to the particularly harmful effects on human health, emissions of nitrogen oxides are also particularly damaging to the environment. NOx contributes to climate change through the formation of ozone. Moreover, NOx leads to acid rain and vulnerable Natura 2000 areas are permanently affected by emitted nitrogen oxides due to soil acidification. The U.S. Environmental Protection Agency ("EPA"), charged with protecting public health and the environment, aptly summarizes the environmental and public health hazards of NOx in the illustrations below:

Acid Rain - NO_x and sulfur dioxide react with other substances in the air to form acids which fall to earth as rain, fog, snow, or dry particles. Some may be carried by the wind for hundreds of miles. Acid rain damages forests; causes deterioration of cars, buildings, and historical monuments; and causes lakes and streams to become acidic and unsuitable for many fish.



Water Quality Deterioration - Increased nitrogen loading in water bodies, particularly coastal estuaries, upsets the chemical balance of nutrients used by aquatic plants and animals. Additional nitrogen accelerates "eutrophication," which leads to oxygen depletion and reduces fish and shellfish populations. NO_x emissions in the air are one of the largest sources of nitrogen pollution to the Chesapeake Bay.



²⁵ J.E. Jonson, J. Borken-Kleefeld, D. Simpson, A. Nyiri, M. Posch and C. Heyes 'Impact of excess NOx emissions from diesel cars on air quality, public health and eutrophication in Europe', *Environmental Research Letters* 12 (2017) 094017 dated 24 March 2017 (**Exhibit 16**).

²⁶ S. Laville, 'Air pollution a cause in girl's death, coroner rules in landmark case', *The Guardian* 16 December 2020 (Exhibit 1).



Toxic Chemicals - In the air, NO_x reacts readily with common organic chemicals, and even ozone, to form a wide variety of toxic products, some of which may cause biological mutations. Examples of these chemicals include the nitrate radical, nitroarenes, and nitrosamines.

Ground-level Ozone (Smog) - is formed when NO_x and volatile organic compounds (VOCs) react in the presence of heat and sunlight. Children, the elderly, people with lung diseases such as asthma, and people who work or exercise outside are susceptible to adverse effects such as damage to lung tissue and reduction in lung function. Ozone can be transported by wind currents and cause health impacts far from the original sources. Millions of Americans live in areas that do not meet the health standards for ozone. Other impacts from ozone include damaged vegetation and reduced crop yields.





Particles - NO_x react with ammonia, moisture, and other compounds to form nitric acid vapor and related particles. Human health concerns include effects on breathing and the respiratory system, damage to lung tissue, and premature death. Small particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and aggravate existing heart disease.



Global Warming - One member of the NO_x family, nitrous oxide, is a greenhouse gas. It accumulates in the atmosphere with other greenhouse gases causing a gradual rise in the earth's temperature. This will lead to increased risks to human health, a rise in the sea level, and other adverse changes to plant and animal habitat.

European efforts to reduce harmful emissions from diesel vehicles

4.16. The European Union has long recognised the problematic emissions from diesel cars in various health programmes and legislation. In 2001, the European Commission announced the "Clean Air

For Europe" programme ("**CAFE**") On.²⁷ The aim of this programme was to promote public health by focusing on air quality and reducing harmful (diesel) emissions. In order to meet EU air quality objectives, the CAFE programme set further reductions in harmful vehicle emissions and required car manufacturers selling vehicles in the EU to meet these stringent emission targets.

- 4.17. To reduce NOx and other harmful emissions, EU emission standards have become increasingly stringent over time. When the Emissions Regulation was introduced, the European Commission noted that there had been more than 24 directives on vehicle emissions and fuel consumption in the last 35 years. In particular, the very harmful NOx is subject to increasingly strict maximum emission values. The Emissions Regulation was replaced by Regulation 2019/61 on 1 January 2020. Replacement was necessary, according to recital 10, because of the significant differences between emission values in test situations and emission values in daily use of vehicles.
- 4.18. Because the Rigged Diesels that are the subject of this writ of summons were sold prior to the entry into force of this new 2019 regulation, this writ of summons is based on the various emission standards contained in the Emissions Regulation as it applied prior to 1 January 2020. Relevant here are the following so-called Euro standards for diesels, which lowered the NOx limit values (and thus continuously reduced the permitted emissions):
 - in the Euro 3 standard (in force from January 2000), the NOx limit values were 500 mg/km;
 - in the Euro 4 standard (from January 2005) the NOx limit values were lowered to 250 mg/km;
 - the Euro 5 standard (from September 2009) further lowered the limit value to 180 mg/km;
 - finally, with the Euro 6 standard (from September 2014), the permitted level of NOx was lowered to 80 mg/km.

Note: the Euro 5 and Euro 6 standards are included in the Emissions Regulation.

- 4.19. These strict NOx standards clearly show how seriously the EU takes the NOx problem; in the period 2000 2014, the maximum permitted NOx emissions under the Euro 6 standard were more than six times lower than those still allowed under the Euro 3 standard. Manufacturers were informed well in advance of these strict environmental requirements in order to be able to adapt their production process to these in good time; the Euro 6 standard, which would apply from 2014, was therefore already established in 2007.²⁸
- 4.20. The regulation of vehicle emissions in the EU and the Netherlands is further governed mainly by the EC directive 2007/46/EC ("**Framework Directive**"), EC regulation 692/2008 ("**Test Regulation**") and in article 22 (4) of the Dutch Road Traffic Act [Wegenverkeerswet] 1994 ("**WVW**"). The main provisions are summarised in the following paragraphs.

Summary of relevant legal provisions in the EU and the Netherlands

4.21. A car manufacturer who wants to market his car in the EU must, in accordance with Article 22 paragraph 4 of the Dutch Road Traffic Act, guarantee that the car complies with the relevant emission standards and other requirements. Every car has to undergo a type approval before it can be put on the market. Article 4 of the Framework Directive requires each EU Member State to designate or establish an approval authority to deal with matters relating to EC type approval. Each Member State

²⁷ EC, 'The Clean Air for Europe (CAFE) Program - Towards a Thematic Strategy for Air Quality, COM(2001) 245 final dated 4 May 2001 (**Exhibit 17**).

²⁸ Within the Euro 6 standard, a distinction is still made between Euro 6b, 6c, 6d-TEMP and 6d. The emission limits are the same for all these variants, but it is the way of testing that makes the difference.

is then competent to grant type approval to vehicles submitted to its approval authority. After successful type approval in a Member State, the car is deemed suitable for delivery throughout the EU.

EC type approval process and emissions tests

- 4.22. EC type approval is granted by the issuing of an EC type approval certificate in accordance with Chapter IV of the Framework Directive. In the Netherlands the approval authority is the RDW, in Germany the KBA and in France the CNRV. An EC type approval can only be granted by an approval authority when the vehicle complies with all applicable regulatory acts listed in Annex IV of the Framework Directive. The Emissions Regulation also forms part of this. The starting point, according to Article 5 of the Framework Directive, is that the manufacturer is responsible for all aspects of the approval process and for ensuring conformity of the production, whether or not the manufacturer is directly involved in all stages of vehicle construction.
- 4.23. In the development of the Emissions Regulation, the EU has already been wary of manufacturers showing different results during approval procedures than in normal use. It is therefore explicitly stated in Article 4 paragraph 2 of the Emission Regulation that manufacturers must comply with the type-approval procedures for checking the conformity of production and the durability of the emission conversion system. And even more relevant: emissions must be limited and in compliance with the Emissions Regulation "throughout the normal life of the vehicles under normal conditions of use".

"Art 4 paragraph 2: "Manufacturers shall ensure that the type-approval procedures for checking the conformity of production, the durability of the emission control system and the conformity of vehicles in service are complied with.

In addition, the technical measures taken by the manufacturer should be such as to ensure that the exhaust and evaporative emissions are effectively limited, in accordance with this Regulation, throughout the normal life of the vehicles under normal conditions of use. For that purpose, in-service conformity measures shall be checked until the vehicle reaches the age of 5 years or 100,000 km, whichever is the sooner. Durability testing of the emission control systems for type approval covers 160,000 km. To comply with this durability test, manufacturers shall have the possibility to use bench ageing tests, provided that they are in conformity with the implementing measures referred to in paragraph 4.

Conformity of in-service vehicles shall be checked in particular against the emission limit values set out in Annex I. In order to improve the control of evaporative emissions and of emissions at low ambient temperatures, the Commission shall revise the test procedures."

4.24. Article 5(1) of the Emissions Regulation reiterates that emission control systems must comply with the Emissions Regulation not only during testing but also under normal conditions of use:

Art. 5(1): "Manufacturers shall equip their vehicles in such a way that the components likely to affect emissions are designed, constructed and installed in such a way that the vehicle can comply with this Regulation and its implementing measures under normal conditions of use."

4.25. A similar provision can be found in the Test Regulation. All vehicles for which EC type approval is required in the European Union must be tested in accordance with the test requirements laid down in the Test Regulation. Article 3(5) then requires vehicle manufacturers to take technical measures to ensure that the exhaust and evaporative emissions are effectively limited throughout the normal life of a vehicle and under normal conditions of use.

Art. 3 paragraph 5: "The manufacturer shall take technical measures to ensure that the exhaust and evaporative emissions are effectively limited in accordance with this Regulation during the normal life of the vehicle and under normal conditions of use.

These measures include ensuring that the hoses, gaskets and fittings used in emission control systems are constructed so as to conform to the original design intent."

- 4.26. Paragraph 6 of the same Article adds that manufacturers must ensure that the results of emissions tests comply with the applicable limit values under the test conditions laid down in the Test Regulation. This test procedure was until recently the *New European Driving Cycle* ('NEDC'), which in accordance with Annexes III and VIIII of the Test Regulation takes place on a roller bench and not on a real road. The roller bench is a kind of 'treadmill' on which the wheels of the tested car are placed. Because the roller bench is driven by (the wheels of) the test vehicle, it simulates the car driving on a real road. On the roller bench, four driving cycles in the city and one driving cycle outside the city are simulated. A characteristic of the roller bench is that the steering is not used. The standardized NEDC test enabled the manufacturers of rigged diesels to develop software that recognized when the car was on a roller bench and when it was actually being used for its intended purpose: driving on the road.
- 4.27. The NEDC test was intended to measure fuel consumption and emissions, including the emission of soot, particulates and NOx, as objectively as possible. However, the standardised parameters of this test have led to car manufacturers cheating on the NEDC test to achieve clean test results, when in reality they were not clean. Volkswagen, (the predecessors of) Stellantis and other manufacturers were able to calibrate the software in the emission control systems in such a way that the cars achieved clean test results, while in reality they emitted up to tens of times the permitted NOx maximums. New emissions testing protocols in response to Dieselgate
- 4.28. As a result of the diesel emissions scandals, the EU has introduced new emissions testing protocols in the hope of ending emissions distortions. For example, with the introduction of the Euro 6c standard in 2018, the NEDC test was replaced by the *Worldwide harmonized Light vehicles Test Procedure* ("WLTP"), which has much more realistic test conditions and should therefore be able to more accurately determine whether the vehicle actually meets emissions regulations. However, the WLTP is also a test that takes place on a roller bench in a laboratory with a constant temperature, and therefore remains susceptible to cheating by car manufacturers.
- 4.29. To avoid a repeat of the diesel scandal in question, Euro 6d-TEMP vehicles²⁹ from September 2019 are therefore also tested with a *Real Driving Emissions* ("RDE") test. Crucially, this is a test conducted on the road for two hours under normal operating conditions using a *Portable Emissions Measurement System* ("PEMS"). Such a portable emissions measurement system captures the emissions from the car during normal operation, and measures the harmful pollutants present in them, as shown in the image below.

²⁹ Euro 6d-TEMP is the emission standard that all newly registered diesels must comply with from 1 September 2019.



4.30. The RDE test is intended to rule out emissions fraud, as occurred on a large scale with Peugeot, Citroën and Opel diesel cars during the NEDC roller bench tests. Because there is no illusion that the same emission values are achieved during normal driving as during the NEDC test on the roller bench, the RDE test of Euro 6d-TEMP temporarily increased NOx emissions to 168 mg/km, 2.1 times 80 mg/km (the Euro 6 standard in NEDC testing). From 1 January 2021, NOx emissions from diesel vehicles in the RDE test may only be 1.43 times the Euro 6 standard in the NEDC test, which amounts to 114 mg/km.

Certificate of conformity for each vehicle sold in the EU

- 4.31. If the car passes the type approval test for the model in question, and thus complies with all the prescribed emission standards and other requirements, the manufacturer receives what is referred to as a certificate of conformity. In concrete terms, the certificate shows that the vehicle in question complies with the emission standards laid down. The certificate therefore contains information regarding the identification and specifications of the type of vehicle and the corresponding determined emission values and fuel consumption. Every vehicle sold in the EU must have such a certificate of conformity before it can be sold. In addition, the certificate obliges all other EU Member States to register the vehicle covered by the declaration of conformity and to permit its sale in accordance with Article 26(1) of the Framework Directive.
- 4.32. All cars sold in the Netherlands are therefore provided with a certificate of conformity showing that the vehicle has been manufactured in accordance with the applicable EC type approval for the model in question. Without this certificate, the rigged diesels could not have been sold and registered in the Netherlands (or the rest of the EU). However, because the Rigged diesels were wrongly typeapproved, the certificate of conformity was also wrongly issued.

Additional emission standards for the use of (diesel) vehicles

- 4.33. In practice, moreover, it can be seen that even meeting European emission standards is nowhere near enough to achieve acceptable air quality, particularly in urban areas. In order to protect the health of its citizens, the Netherlands (and other EU countries) have established what are called environmental zones, including in Amsterdam, Arnhem, Rotterdam and Utrecht. Under this regime, certain vehicles are not allowed in certain areas. For example, from November 2020 onwards, Amsterdam will only allow diesels of Euro 4 and later. These Dutch standards will be further tightened from 2025.³⁰
- 4.34. Restrictions on harmful diesel emissions are even stricter in Germany and also apply in France, where some cities allow only Euro 5 type and later diesels under certain circumstances. It is relevant in this regard as will be shown later in this writ of summons that diesel cars from Peugeot, Citroën and Opel, which on paper meet the Euro 6 standard of 80 mg/km, do not even comply in practice with the Euro 5 standard of 180 mg/km, as a result of which these rigged diesels should be banned from the environmental zones.
- 4.35. Not only have the Aggrieved Parties paid for a car that violates emission standards and is therefore not clean at all, but they are also faced with the risk that their Rigged Diesels will be partially or totally banned from driving, as is already apparent in European inner cities.

The EU legal ban on manipulation devices

- 4.36. Despite the fact that there is broad scientific consensus on the harmfulness of NOx emissions, car manufacturers regularly try to push the limits. The manipulation of type approvals by car manufacturers has been a well-known phenomenon for years. Cars have been produced since the 1990s that were able to detect when a vehicle was being tested in order to circumvent emissions standards. The EPA already discovered at the time that trucks built between 1993 and 1998 by Renault, Volvo and Caterpillar activated a special mode to make the vehicle meet emission standards at the time they were tested, and to disable these emission control systems during daily use, inter alia for fuel-saving purposes.³¹
- 4.37. The international community has recognised the need for effective regulation of emissions and, in doing so, has explicitly recognised the great danger posed by the circumvention of emission standards by car manufacturers. To this end, the United Nations Economic Commission for Europe ('UN/ECE', which includes all European countries, the United States, Canada and Russia) has explicitly stipulated that car manufacturers must not install 'manipulation devices' in their cars. These manipulation devices are defined as components of the vehicle that retard or disable the operation of the emission control system under conditions encountered during normal vehicle use.
- 4.38. Regulation No 83 of the UN/ECE on "Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements" ("**UN Regulation**") states the following on this matter:

"Art. 2.16: 'defeat device' means any structural component that measures temperature, vehicle speed, engine speed, acceleration, suction vacuum or other parameter to activate, modulate, retard or disable the operation of any part of the emission control system so as to reduce the effectiveness of the emission

³⁰ Information about Environmental Zones in the Netherlands – Passenger and delivery vans, <u>https://www.milieuzones.nl/mensen-en-bestelautos</u> (**Exhibit 18**).

³¹ M. Hijink & C. Houtekamer, 'Not only Volkswagen tries to appear clean and economical', *NRC* 22 Sep 2015 (Exhibit 19).

control system under conditions that may reasonably occur during normal vehicle use. Such a structural component is not considered a manipulation device if:

2.16.1. it is necessary to protect the engine against damage or accident and to ensure the safe operation of the vehicle, or

2.16.2. it functions only when the engine is started; or

2.16.3. its use is substantially included in the Type I or Type VI test procedures;'

- 4.39. The UN Regulation then prohibits such defeat devices in Article 5.1 and further provides (in Article 3.1.1) that the car manufacturer must itself provide information in the context of the approval application with regard to measures taken to prevent manipulation and modification of the emission control computer.
- 4.40. The Emissions Regulation codifies these provisions in the UN Regulation and uses almost the same definition for 'manipulation devices' as for 'manipulation facilities'.

Art. 3(10): "defeat device" means a structural component that measures temperature, vehicle speed, engine speed, acceleration, intake depression or other parameters to enable, modulate, slow down or disable a component of the emission control system. so that the efficiency of the emission control system is reduced under conditions that can be expected during normal use of the vehicle;"

4.41. The Emissions Regulation prohibits the use of manipulation devices that reduce the effectiveness of emission control systems except under strictly prescribed conditions, including when the device is "necessary to protect the engine against damage or accident and to ensure safe operation of the vehicle". Article 5(2) of the Emissions Regulation provides as follows:

"The use of manipulation devices that reduce the effectiveness of emission control systems is prohibited. This prohibition shall not apply if:

- i. the device is necessary to protect the engine against damage or accident and to ensure safe operation of the vehicle;
- ii. the device functions only when the engine is started, or
- iii. the conditions were substantially included in the test procedures for verifying evaporative emissions and average exhaust emissions."
- 4.42. Thus, car manufacturers that place vehicles on the market that contain such defeat devices are in violation of their obligations under Articles 5.1 and 5.2 of the Emissions Regulation. Crucially, both the UN Regulation and the Emissions Regulation consider all devices to be prohibited manipulation devices if they disable emission control systems at times that *are to be expected during normal vehicle operation*. This addition is an exact attempt to make clear that car manufacturers should not present emissions more favourably during emissions testing than they actually are, as Stellantis (in close collaboration with Bosch) has done on a large scale.
- 4.43. As will be discussed in detail later, the emission control systems of Peugeot, Citroën and Opel (among others) are switched off when the outside temperature is below a certain temperature. The fact that emission control systems are switched off for a large part of the year on diesels from Peugeot, Citroën and Opel just because of the outside temperature alone shows that the use of the prohibited defeat devices as defined by the UN regulations and the Emissions Regulation exists.

5. PEUGEOT, CITROËN AND OPEL EMISSIONS TECHNOLOGY AND PROMISES

Introduction: different systems for limiting emissions

- 5.1. Due to the international tightening of diesel emission regulations and rising petrol prices, almost all major car manufacturers have developed "clean diesel" engines. They then unanimously claimed that modern diesel cars were no longer highly polluting, as they had always previously been. On the contrary, the new diesel vehicles were promoted as environmentally friendly and "clean" and, in many cases, would even be cleaner than petrol cars. Volkswagen, (the predecessors of) Stellantis, Renault, Mercedes, General Motors, Fiat Chrysler America and other manufacturers therefore started to sell diesel cars and trucks as a more powerful but also more environmentally friendly alternative to petrol vehicles. And the marketing worked, as millions of diesel vehicles were purchased across Europe and around the world between 2009 and 2019.
- 5.2. In order to reduce emissions from diesel engines, car manufacturers have to think of different ways to achieve emission standards. As described earlier in this writ of summons, diesel engines are more efficient, but also considerably more harmful due to emissions of NOx, particulate matter and soot particles. One way to reduce NOx emissions is to lower the pressure and temperature of the air fed into the combustion chamber of the diesel engine, but this in turn produces additional particulate matter and/or soot, which is equally undesirable.

Exhaust gas recirculation method

5.3. Another way to reduce NOx emissions is through exhaust gas recirculation using an *Exhaust Gas Recirculation* system ("EGR"). As explained in Figure 1 below, the exhaust gases are routed back to the engine inlet and mixed with fresh incoming air. Exhaust gas recirculation returns a portion of the exhaust gases to the engine intake using a controllable valve that directs exhaust gases from the exhaust manifold, through an EGR cooler, to the engine intake. The mixture of exhaust gas and fresh incoming air reduces the NOx generated in the cylinder during engine operation. Exhaust gas recirculation reduces the amount of NOx produced by reducing the available oxygen and lowering the maximum combustion temperature; however, EGR also leads to an increase in harmful particulate matter emissions, so this solution does not solve the problem of harmful emissions.

Exhaust Gas Recirculation through Cold Loop





5.4. Both Stellantis and other car manufacturers used EGR in all their Euro 5 and Euro 6 diesel engines. All Peugeot, Citroën and Opel Rigged diesels therefore have an EGR. However, the application of EGR alone is not sufficient to meet the strict European and North American emission standards. In order to further limit NOx emissions, in addition to the EGR systems, various expensive aftertreatment methods for exhaust gases were developed in the automotive industry. All Rigged diesels that qualify as Euro 6 diesels therefore have such a second after-treatment system (in addition to EGR). The two most commonly used after-treatment systems are known as selective catalytic reduction and the *Lean NOx Trap*, and these will be briefly described below.

Selective catalytic reduction method

- 5.5. A relatively costly after-treatment method for diesel vehicles to meet the Euro 6 standards is selective catalytic reduction ("SCR"). NOx is filtered from the emissions with a catalyst and converted into nitrogen gas (N₂) and water. The obvious disadvantage of such an after-treatment method is in addition to the cost an additional tank required in the car to store the urea solution and to be able to use it for NOx reduction. In addition, users must refill this tank on a regular basis.
- 5.6. For the diesels from Peugeot and Citroën at Euro 6, as well as GM with (part of its) Euro 6 diesels from Opel, PSA made use of an SCR system (more on this below).

Lean NOx Trap method

5.7. Instead of using the SCR system in all its diesels, GM chose to implement a less expensive and more user-friendly system in some of the Euro 6 models; a NOx storage catalyst referred to as the *Lean NOx Trap* ("LNT"). When this technique is used, NOx is captured in the catalyst and - when the temperature of the LNT falls within a certain combustion range - reduced to harmless substances such as NO2. When the catalyst is full, the NOx is converted to nitrogen (N2) through a catalytic reaction. However, the catalytic converter can only capture a limited amount of NOx. If too much NOx is emitted before the catalytic reaction takes place, then the catalyst is over-saturated and no longer works until a successful reduction takes place.

A closer look at the emission control systems used at Peugeot, Citroën and Opel

- 5.8. For the treatment of the emissions in the diesel engine, therefore, the diesels from Peugeot, Citroën and Opel primarily use exhaust gas recirculation (EGR), whereby the exhaust gases are returned to the inlet of the engine and mixed with fresh incoming air. The after-treatment technologies include the already mentioned LNT system or the SCR system and a diesel particulate filter. The latter filter captures and removes soot emissions.
- 5.9. From 2013, PSA introduced a so-called 'Blue HDi exhaust line' (which uses an SCR system) in the diesels from Peugeot and Citroën. From that moment on, all Euro 6 diesels from PSA (and now Stellantis) were equipped with this system. The diagram below explains how the Blue HDi system works:



5.10. When introducing the Blue HDi system, PSA stated that the system would significantly reduce NOx emissions:

"Blue HDi technology, a major step forward in the reduction of pollutant emissions, reduces the nitrogen oxide (NOx) emissions of diesel engines to levels comparable with those of petrol engines,

while safeguarding the intrinsic advantages of diesel engines in terms of driving pleasure, fuel consumption and CO2 emissions."32

5.11. For example, the after-treatment method would eliminate up to 90% of the NOx emitted by the diesel engines:

"A post-treatment system called selective catalytic reduction (SCR), positioned upstream of the additive particulate filter and which eliminates up to 90% of the nitrogen oxide emitted by the engine."33

5.12. In 2014, GM introduced the so-called CTDTi diesel engine in the 'top models' of its Euro 6 diesels from Opel, such as the Insignia and the Zafira Tourer.³⁴ The engines in guestion were equipped with 'Blue Injection', which qualified as an SCR system and was included to meet the Euro 6 emission standards. For example, in 2016 GM stated the following about Blue Injection:

"2016 has not been a very good year for diesel. In the wake of Volkswagen's disastrous diesel scandal, automakers have been hit hard with regulations and scrutiny over emissions. That includes General Motors' Opel division.

Part of Opel's offensive against diesel emissions is Blue Injection, which takes an artificial mixture of urea and water, and helps break down the exhaust gases. What's left is water and nitrogen.³⁵

5.13. Opel's website even stated that the technology referred to as Blue Injection would be good for the environment:

"When you drive a vehicle with BlueInjection technology, you reduce toxic nitrogen oxide (NOx) emissions (...), thus significantly cleaner on the road."36

- 5.14. In the years 2017, 2018 and 2019, Opel subsequently introduced its Blue Injection technology in other models, such as the Cascade (from 2017), the Astra (from 2018), the Mokka (from 2018), the Corsa (from 2019), the Movano (from 2018) and the Isignia (from 2017).³⁷
- 5.15. Rigged diesels meet the applicable emission standards during a test on the roller bench (such as the NEDC test), as a result of the EGR, SCR and/or LNT systems working optimally. However, this is different when the after-treatment systems are (partially) switched off, as is the case when the Rigged diesels drive in 'normal' driving conditions (not on a roller bench). In that case, the Rigged diesels emit considerably more NOx than is permitted under the applicable emission standards.

The manipulation of emissions in Peugeot, Citroën and Opel Rigged diesels

- 5.16. All Peugeot, Citroën and Opel Rigged diesels controlled emissions as follows: after the combustion by-products have left the engine, part of the exhaust is cooled and returned to the combustion chamber using exhaust gas recirculation (EGR). This is the first step in reducing the engine's NOx emissions, which was used by Peugeot, Citroën and Opel on all Euro 5 and Euro 6 diesels.
- 5.17. In addition to the EGR, the Euro 6 diesels also have a (second) after-treatment system: either an SCR system for Peugeot and Citroën diesels and some Opel diesels, or an LNT system (as explained above) for the other diesels from Opel. In both the SCR system and the LNT system, in this second

³² https://www.groupe-psa.com/en/newsroom/automotive-innovation/blue-hdi-diesel-engine/ (Exhibit 20).

³³ Idem.

³⁴ https://www.car-engineer.com/new-opel-2-0l-cdti-diesel-engine/ (Exhibit 21).

https://gmauthority.com/blog/2016/07/feature-spotlight-opel-blue-injection-technology-helps-keep-diesel-acleaner-word/ (Exhibit 22). ³⁶ <u>https://www.opel.de/tools/adblue/passenger car.html</u> (Exhibit 23)

³⁷ Introduction of Blue Injection in Opel Cascade, Astra, Mokka, Corsa, Movano and Isignia (Exhibit 24).

step, after the exhaust gases have passed through a particulate filter, they are then converted into less harmful substances.

- 5.18. When this entire emission control system is fully activated, such as when a diesel car from Peugeot, Citroën and Opel is tested via a classic NEDC test (i.e. on a roller bench), this results in cleaner emissions that comply with the Emissions Regulation. However, when this emission control system is switched off, as is apparently the case with the everyday use of the car under 'normal driving conditions', Peugeot, Citroën and Opel Rigged Diesels produce extremely high NOx levels that are well above the maximum permitted emission values.
- 5.19. The exhaust gas recirculation (EGR) system can be shut down by car manufacturers by completely closing the valve that allows the exhaust gases to enter the intake opening. The extent to which EGR is active can be controlled by opening this valve to a greater or lesser extent. A lower percentage of EGR indicates that the valve is more closed, limiting the amount of exhaust gas that passes through the EGR system. Conversely, a high percentage indicates a large amount of exhaust gas passing through the EGR system. A high EGR percentage results in a more significant reduction of NOx emissions. The EGR percentage is controlled by an engine management system, which is generically referred to as an Electronic Control Unit ("ECU") and at Bosch, as already mentioned in the introduction, has the name "EDC" plus the model number (and will be referred to in this writ as its last version, the EDC17, which also comprises previous versions of the EDC used in the Rigged Vehicles). This part determines under what circumstances the EGR system can be partially switched on or off and is thus programmed and set by the technicians of Peugeot, Citroën and Opel in collaboration with the supplier Bosch.
- 5.20. Bosch's EDC17 also determines the amount of urea-rich AdBlue injected into the exhaust gases to limit the NOx emissions of the diesels. In general, the greater the amount of AdBlue introduced into the exhaust stream, the lower the amount of NOx emitted by the vehicle. In the event that the EDC limits or even disables the addition of AdBlue to the exhaust gases, substantially more NOx is emitted, as a result of which the diesel car does not (any longer) comply with the emission standards.
- 5.21. When the Bosch EDC17 limits or even completely disables the operation of the EGR system and/or the secondary systems (*i.e.*, either the SCR or the LNT), the amount of NOx emitted will increase and the vehicle will no longer meet the applicable emission standards.
- 5.22. Despite the fact that Peugeot, Citroën and Opel did have the means to limit harmful NOx emissions with their emission-limiting systems, they nevertheless chose not to do so. The independent *International Council on Clean Transportation* ("ICCT") has published that the reason Rigged diesel manufacturers resorted to emissions fraud, when clean diesel combustion technology was basically in place, was to reduce fuel consumption, lower engine noise and generally improve the 'feeling of performance'.³⁸
- 5.23. In particular, the ICCT explained:
 - The SCR system uses ammonia as a reagent to reduce NOx, and it requires the storage of urea-rich AdBlue in an additionally required tank in the vehicle. By disabling the SCR system, the urea tank refilling intervals are extended, and the urea tank can become smaller and thus take up less space:

³⁸ Y. Bernard et al, 'White Paper: Catching defeat devices – How systematic vehicle testing can determine the presence of suspicious emissions control strategies', *ICCT* June 2019 (**Exhibit 25**).

"Turning off the SCR system extends urea tank refill intervals for improved consumer acceptance," and leads to a smaller "urea tank size if the vehicle cannot accommodate a larger tank."⁵⁰

• When the EGR is turned off, more oxygen is available, allowing more fuel to be burned immediately - if needed - and greatly improving the car's responsiveness. In short, disabling the EGR improves the overall driving performance of the Rigged diesel:

"more excess oxygen is available, more fuel can be burned immediately if necessary"39

• Reducing the operation of the LNT system can save fuel:

"LNT-equipped vehicles have to periodically inject extra fuel into the exhaust to reduce the NOx stored on the LNT. Turning off or modulating this LNT regeneration process can . . . improve fuel economy by 2%-5%."⁴⁰

• A diesel particulate filter is expensive. Calibrating the engine for high NOx emissions can reduce soot particle emissions, meaning the filter will need to be changed less often, a less expensive filter can be used, and fuel consumption could be reduced:

"Calibrating the engine for high NOx emissions can reduce particulate emissions. Lower particulate emissions mean the particulate filter would require fewer periodic regenerations, which in turn would allow for the use of a cheaper, less durable filter and could reduce fuel consumption";"⁴¹

 Given the interaction between fuel efficiency and NOx emissions, opting for higher NOx engine emissions can improve fuel economy by 2%-5%.

"calibrating for higher engine-out NOx emissions can improve fuel economy by 2%-5%"42

 Proper calibration of the ECU is difficult and time consuming. The use of defeat devices makes it possible to save time and focus on other priorities that seem noticeable to the user, such as improving fuel efficiency, while the user is unaware that the Rigged diesel is exceeding emission values:

"Proper calibration is difficult and time-consuming. The use of defeat devices allows calibration engineers to save time and focus on other priorities, such as fuel economy improvement which—unlike air pollutant emissions performance—can be perceived by the user of a vehicle."⁴³

5.24. For Peugeot, Citroën and Opel, therefore, switching off the emission control systems outside of emissions tests had the advantage of slightly lower fuel consumption, lower maintenance and development costs and optimum ease of use. Peugeot, Citroën and Opel were therefore able to maximize their profits for years, at the expense of the environment and public health, due to their systematic fraud and violation of the Emissions Regulation.

The market positioning of Peugeot, Citroën and Opel; clean diesel manufacturers

Advertising and Publicity by Peugeot and Citroën

5.25. From various press releases and old cache files from the Peugeot website that can still be found, it clearly follows that Peugeot is wrongly telling potential buyers from 2013 that with the BlueHDi technology the NOx emissions can be reduced by 90%:

³⁹ *Ibid*, p. 4.

⁴⁰ *Ibid,* p. 4.

⁴¹ *Ibid*, p. 4.

⁴² *Ibid*, p. 4.

⁴³ *Ibid*, p. 5.

"BlueHDi is the name of Peugeot's Euro6 diesel engines. Thanks to the technology of these engines, NOx (nitrogen oxide) emissions are reduced by more than 90%. The CO2 emissions and fuel consumption are also lower, while 99.9% of the particulate matter is retained by the particulate filter".

5.26. Peugeot also makes similar statements in promotional videos that Peugeot places on its Youtube channel:

"BlueHDi technology enables new generation diesel engines to reduce NOx – nitrogen oxides – by up to 90% and to optimize consumption and CO2 emissions while continuing to eliminate 99.9% of particulates'.⁴⁴

5.27. Peugeot tells potential buyers that Peugeot produces the cleanest diesels available on the market:

'Peugeot continues to maintain its lead in offering ever-cleaner diesel engines with BlueHDi, the most efficient system on the market when it comes to reducing pollutant emissions'.⁴⁵

5.28. Peugeot even declares in its advertising that the NOx emissions of diesel cars with BlueHDi remain well below the Euro 6 standards:

"BlueHDi more than meets Euro-6 diesel standards. It has the best potential for future emissions standards".⁴⁶

- 5.29. The then applicable (and future, already announced well in advance) emission standards were strongly in Peugeot's mind when rolling out the SCR system in Europe (and therefore also in the Netherlands). With the introduction of the SCR technology, Peugeot therefore promised buyers vehicles that met all legal requirements and were even well ahead of the legal requirements, while knowing that this was not true.
- 5.30. In the years that follow, Peugeot unabashedly maintains this deception. For example, Peugeot continues to promote that its cars save the environment:

"Since the end of 2013, PEUGEOT has been using BlueHDi technology, the most effective emission control technology on the market, on its new 1.6 I and 2.0 I diesel engines, once again ahead of the new emission standards. The 1.6 BlueHDi engine, previously available in a 100 hp and a 120 hp version, is now also available in a 75 hp version. This engine is characterized by driving pleasure and unprecedentedly low consumption figures. The 2.0 BlueHDi engines, available in 150 hp and 180 hp versions, combine high performance with low fuel consumption."⁴⁷

5.31. Peugeot thereby pretends to be using the most efficient method for the reduction of NOx:

"The SCR (Selective Catalytic Reduction) technology is <u>the most efficient NOx aftertreatment</u> <u>technology available on the market</u>. And thanks to the PEUGEOT-exclusive placement in front of the particulate filter with additive system, the SCR catalytic converter works faster than comparable systems, reducing NOx (nitrogen oxides) emissions by up to 90% while eliminating 99.9% of particulate matter, including even the smallest particles.

Due to the system's efficiency in reducing NOx emissions, a combustion chamber and engine tuning specially configured for low CO2 emissions can simultaneously reduce the engine's CO2 emissions and fuel consumption by up to 4% compared to a Euro 5 engine.".

5.32. Peugeot also places the energy labels on its website that would apply to the diesel cars. Peugeot does not hesitate to provide a large number of diesel engines with energy labels A or B, which gives

⁴⁴ Print screen film (<u>https://www.youtube.com/watch?v=yQq6ch1pY2</u>) on Peugeot's official Youtube channel dated 19 February 2015 (**Exhibit 26**).

⁴⁵ Printscreen Youtube video dated 19 February 2015 (Exhibit 27).

⁴⁶ Printscreen Youtube video dated 19 February 2015 (Exhibit 28).

⁴⁷ WayBack Machine print screen from 24 March 2015 (Exhibit 29)

the impression that the engines are 'clean'. However, no statement is made about the amount of NOx emitted by the models concerned.⁴⁸ The reason why Peugeot has not done this can be guessed: after reporting the NOx emitted by the diesels, considerably different (read: lower) energy labels should be applied to the diesels.

5.33. Even after the first reports of the 'dieselgate scandal' appeared in the media, Peugeot continued to extol the fact that the BlueHDi technology complied with all applicable laws and regulations:

"BlueHDi technology exceeds the Euro 6 standards that will come into effect in September 2014 for new models and in September 2015 for all new cars. This technology will be applied to all diesel models of the brand and offers the best potential for future emission standards."⁴⁹

5.34. Also in 2017:

"PEUGEOT is one of the first car manufacturers to anticipate the introduction of the Euro 6.c emissions standard, in line with the PSA Group's commitment to ensure that customers have access to independent, certified information related to fuel consumption under practical conditions. As of September 2018, Real Driving Emissions (RDE) must not exceed 2.1 times the certified figures.

The new PEUGEOT 308 is powered by a range of particularly economical petrol and diesel engines that offer an optimal compromise between good performance and low fuel consumption.

The new PEUGEOT 308 is the first model of the PSA group to be delivered with the 1.5 BlueHDi 130 S&S; a 4-cylinder diesel engine that has emission control at the source and at the exhaust".⁵⁰

- 5.35. The fact that these claims by Peugeot are not true is already apparent from the fact that Peugeot stated on its website in 2018 that the new generation of diesel engines '*[ask for] more AdBlue than the previous generation to achieve the required emission level*'.⁵¹ With this, Peugeot implicitly acknowledges after all that the diesel engines with the technology of the 'previous generation' did not meet the required emission level because apparently too little AdBlue was used.
- 5.36. Various press releases and old cache files from the Citroën website also show that Citroën told potential buyers from the Netherlands from 2013 that the diesel cars it produced were economical and clean:

"The new BlueHDi 120 S&S, 150 S&S and 180 S&S diesel engines, which meet Euro 6 standards, are notable for their low fuel consumption and low CO2 emissions (from 100 g/km). In addition to the aforementioned engines, there is now also a BlueHDi 100 from 79 g/km.

The SCR (Selective Catalytic Reduction) system installed upstream of the particulate filter, a technology used exclusively by PSA, uses an additive to treat harmful gases faster than competitive systems.

The NOx (nitrogen oxide) is converted into water vapour and nitrogen (inert gas) through a chemical reaction with the additive AdBlue[®].⁷⁵²

5.37. This claim for this 'clean and economical diesel' was continued unabatedly by Citroën and can be found on the Citroën website in full to this day.⁵³ Citroën also placed energy labels on its website that apply to the various diesel cars suggesting that the cars were clean and economical, while in reality the cars were and are many times more polluting.⁵⁴ Citroën thus promised buyers, from the

⁴⁸ Print screen Wayback Machine dated 1 July 2014 (Exhibit 30]).

⁴⁹ Printscreen Wayback Machine from 28 July 2016 (Exhibit 31).

⁵⁰ Printscreen Wayback Machine from 15 June 2017 (Exhibit 32).

⁵¹ Printscreen Wayback Machine from 30 March 2018 (Exhibit 33).

⁵² Printscreen Wayback Machine from 13 July 2014 (Exhibit 34)

⁵³ Printscreen Wayback Machine from 29 June 201 (Exhibit 35).

⁵⁴ Printscreen Wayback Machine from 1 March 2015 (Exhibit 36)

introduction of the BlueHDi technology, vehicles that met all legal requirements and were even well ahead of the legal requirements, while *knowing* that this was not true.

Advertising and Publicity by Opel

5.38. Opel also suggested to Dutch potential buyers from (at least) 2014 that its diesels were 'environmentally aware' and met the emission standards, according to old cache files from the Opel website (<u>www.opel.nl</u>). For example, Opel writes the following advertising text on its website for promoting the Opel Insignia:

"An alternative, environmentally conscious powertrain option is offered by the Insignia 1.4 Bi-Fuel with 103 kW/140 hp. This engine also meets the strict future Euro 6 emissions standards."⁵⁵

- 5.39. Also in 2015, Opel purports to its customers that the new Opel Mokka '*complies with the Euro 6 emission standard*',⁵⁶ while this was emphatically not the case and Opel *knew* that this was not the case as evidenced by the figures of various reports.
- 5.40. During this period, Opel continues to take the position in its sales brochures that all engines meet the 'strict Euro 6 emission standard'.⁵⁷ However, that Opel is indeed aware of the fact that this is by no means reality is apparent from the fact that Opel a few months earlier on 22 April 2016, the day on which the KBA ordered Opel to recall a large number of diesel engines (more about which below).) also indicates that it will start using improved SCR technology for diesel engines from August, in order to further reduce NOx emissions. It states the following in its press release:

"We are convinced that the automotive industry can regain trust through greater transparency for customers and governments. With the measures announced in the run-up to RDE, Opel is showing that it is possible," says Dr. Karl-Thomas Neumann, CEO at Opel. "I ask the European Union, the EU Member States and other European countries to swiftly introduce test setups and test interpretations of field-based measurements, so as to end the uncertainty caused by test results that are hardly comparable."

An important measure in the run-up to RDE is the application of improved SCR technology for Euro 6 diesel engines. Opel expects to integrate the technology for more effective exhaust gas treatment into the production process from August. Dr. Neumann emphasizes: "I am convinced that diesel technology will continue to play an important role in Europe as long as the industry continues to follow the path of continuous improvement. Partly for this reason, we have decided to equip all Opel diesel engines with the latest SCR technology from 2018."⁵⁸

5.41. Therefore, instead of offering openness, Opel (again) failed to inform its customers that its diesel engines emitted significant NOx and thus did not meet the emission standards.

6. DIESELGATE AND THE ACTUAL EMISSIONS OF THE RIGGED DIESELS FROM OPEL, PEUGEOT AND CITROEN

Introduction to Dieselgate

6.1. The European diesel scandal came to light primarily because of the role of Volkswagen. In 2014, the ICCT found that the exhaust fumes from diesel cars contained considerably more pollutants in daily use than the European and American standards allowed.⁵⁹ The ICCT, along with West Virginia

⁵⁵ Printscreen WayBack Machine from 26 March 2014 (Exhibit 37).

⁵⁶ Printscreen Wayback Machine from 2 July 2015 (Exhibit 38).

⁵⁷ Printscreen Wayback Machine from 5 July 2016 (Exhibit 39).

⁵⁸ Printscreen Wayback Machine from 22 April 2016 (Exhibit 40).

⁵⁹ V. Franco et al 'Real-world exhaust emissions from modern diesel cars (Part 1 - Aggregated results)', ICCT 11 October 2014 (**Exhibit 41**).

University, conducted additional testing targeting the suspected type of diesels. This was done with three rented diesel cars, two from the VW group and a third from BMW.

- 6.2. After the U.S. *Environmental Protection Agency* (EPA) and the *California Air Resources Board* sought clarification from Volkswagen, Volkswagen initially claimed that the issue was technical defects in the cars tested. Volkswagen organized a large-scale recall in December 2014, but tests showed that adjustments made during that procedure brought only partial improvements.
- 6.3. After consistently denying fraud, Volkswagen admitted to the EPA in 2015 that it used banned defeat devices to cheat emissions tests.⁶⁰ This led to a formal charge two weeks later by EPA that the software (provided by Bosch) ⁶¹ of diesel engines from Volkswagen was fraudulent and produced more favourable emissions on the test bench than on the road.
- 6.4. On 22 September 2015, Volkswagen also publicly admitted that diesel engine software, found in some 11 million cars worldwide, was fraudulent. Information from sensors allowed the software to know when the vehicle was on the test bench, thus activating emission control systems at that time. On the road, the reduction mechanism was switched off and the engine emitted 10 to 40 times more NOx than allowed by European standards. According to an estimate by *The Guardian*, as a result, 237,161 to 948,691 tons of additional harmful NOx would have been discharged in the United States alone.⁶²
- 6.5. The scandal spread like an oil slick across the United States and Europe when it emerged that virtually all European diesel car manufacturers were defrauding emissions tests, choosing to protect their own profitability at the expense of public health and the environment. The scandal involving rigged software was subsequently also referred to as 'Dieselgate' in the media.

The actual emission values of the Rigged diesels from Opel, Peugeot and Citroën are up to 14 (!) times too high

- 6.6. PSA and GM also were manufacturers of Rigged diesels. It is incontrovertible from (scientific) literature, tests carried out and confessions by PSA and GM in response to (among other things) research by the French government that the so-called clean (and green) diesel vehicles from Opel, Peugeot and Citroën caused much more emission pollution than appeared from tests and that the Rigged diesels other than as portrayed by PSA and GM did not meet the emission standards.
- 6.7. Following investigations by the French government, PSA has confirmed that Peugeot and Citroën's Rigged diesels contained software that limited the effectiveness of the EGR system when the ambient temperature was low (**Exhibit 45**: Final report Royale Commission).⁶³ PSA stated that it had adjusted this in this way to protect the engine against wear or blockages, according to the relevant report. GM also made a similar statement regarding Opel's diesel cars.⁶⁴ As will be explained below, the Court of Justice of the EU dismissed this 'excuse' on 17 December 2020 and established that it concerns the use of (illegal) defeat devices under the Emissions Regulation.

⁶⁰ T. Gardner, P. Lienert, D. Morgan, 'After year of stonewalling, Volkswagen stunned US regulators with confession' *Reuters* 24 September 2015 (**Exhibit 42**).

⁶¹ C. Houtekamer, 'Everything you want to know about the Volkswagen scandal', *NRC* 23 September 2015 (**Exhibit** 43).

⁶² K. Mathiesen & A. Neslen, 'VW scandal caused nearly 1m tonnes of extra pollution, analysis shows', *The Guardian* 23 September 2015 (**Exhibit 44**).

⁶³ See p. 47 of the final report of the Royale Commission (more on that later): Ministère de l'Environnement, de l'Energie et de la Mer, Rapport final de la commission indépendante mise en place par la Ministre Ségolène Royal après la révélation de l' Volkswagen affair', 29 July 2016.

⁶⁴ *Idem*, p. 45.

6.8. For the record: the Opel, Peugeot and Citroën Rigged diesels produce much higher NOx emissions than permitted: various independent tests show that the Rigged diesels under normal driving conditions can emit up to 14 (!) times more NOx than was allowed under the applicable emission standards. As will be explained in more detail in this section, numerous independent tests from respected sources show that both Euro 5 and Euro 6 diesels from Opel, Peugeot and Citroën bear no relationship to applicable emission standards outside the test environment.

TNO study May 2015

- 6.9. A study in May 2015 carried out by TNO on behalf of the Dutch Ministry of Infrastructure and the Environment confirms that the Peugeot 5008 and the Peugeot 308 emit at least three times as much NOx during daily use than as tested on the roller bench (**Exhibit 46:** TNO Report 2015).⁶⁵ The report also states that the Opel Zafira emits at least *11.7* times more NOx emissions than is allowed. Although the report did not mention the brands of the tested diesel vehicles in its report, these brands have nevertheless become public on the basis of an investigation by de Volkskrant.⁶⁶
- 6.10. Moreover, the actual values tested by TNO are considerably higher than the Euro 6 standard allows. More specifically, the TNO report of May 2015 established that the NOx emissions of the tested diesel cars after the selective catalytic reduction (SCR) range from 250 to 2000 mg/km, where the maximum value is 80 mg/km. The actual measured NOx emissions of the Peugeot 5008 and the Peugeot 308 were therefore 7.4 and 3.1 times greater than the permitted value, respectively. The actual measured NOx emissions of the Opel Zafira were thus even 8.2 times greater than the permitted value.
- 6.11. Peugeot has merely stated as an explanation for the differences that 'a test on a roller bench differs from actual use on the road' and that they 'are in favour of introducing tests that better represent actual consumption as soon as possible'. Opel came up with a similar response to the relevant results, adding that the image that had been painted that Euro 6 diesels were not clean or economical was unjustified. After all, these diesels are 'many times cleaner than a lot of old diesels that are still driving around', says Opel.⁶⁷

⁶⁵ TNO report 2015 R10702 dated 18 May 2015.

⁶⁶ Bard van de Weijer, 'The cleanest diesels are also well above the emission standard', *de Volkskrant,* 10 May 2016 (<u>Exhibit 47</u>).

⁶⁷ https://nos.nl/ artikel/2081650-mercedes-kou-veroorzaakte-grote-stikstofschijn (Exhibit 48).
6.12. The report clearly shows the effect of Peugeot's SCR technology on NOx emissions. In the top picture, SCR is disabled when testing the Peugeot 308, and NOx reduction therefore only takes place through other techniques such as EGR. In the image under that, SCR is enabled.⁶⁸



Figure 19: Pre-SCR NOx emissions of vehicle L1 of on-road trips.

6.13. Also when testing the Peugeot 5008, it is clearly visible that it performs better when the SCR is on⁶⁹.



Figure 20: Post-SCR NOx emissions of vehicle L1 of on-road trips.



⁶⁸ TNO report 2015 R10702 dated 18 May 2015, p. 36 (Exhibit 46).

⁶⁹ TNO report 2015 R10702 dated 18 May 2015, p. 33 (Exhibit 46).



Figure 24: Post-SCR NOx emissions of vehicle N1 of on-road trips and chassis dynamometer tests.

6.14. The TNO report also clearly shows that the Peugeot 5008 scores significantly better on the roller bench, both with and without SCR. In the images above, this is clearly visible in the blue dots, which indicate much lower NOx values. The Rigged diesels therefore emitted considerably more NOx during real road journeys than during a type approval test in the laboratory. It thus appears highly likely that the vehicle signals when it is being tested on the roller bench. At that point, it is obvious that other settings will apply to the emission control systems so that optimal test results can be achieved, without actually doing anything to limit harmful NOx emissions. TNO therefore states that the EGR system of the Peugeot 5008 is effective on the roller bench, but less effective on the road:

"In chassis dynamometer tests the engine out NOx emissions are 200 to 1100 mg/km, see Figure 23. In cold NEDC tests the NOx emissions are relatively low. This seems to indicate an active but selective use of the EGR system. In real world tests on the road this system is less effective; NOx emissions vary between approximately 400 and 1400 mg/km".

TNO study October 2016

In October 2016, TNO again carried out a study on behalf of the Dutch Ministry of Infrastructure into various (other) diesel cars (**Exhibit 49:** TNO Report 2016).⁷⁰ The October 2016 study confirms that the Citroën Cactus - a Euro 6 diesel - emits approximately 6.7 (!) times more NOx in daily use than the Euro 6 standard of 80 mg/km allows, while the Peugeot 308 and the Peugeot Partner - also Euro 6 diesels - emit between 6 and 7 times as much NOx in daily use than the Euro 6 standard allows. The Opel Zafira - a Euro 6 diesel - also emits more than fourteen (!) times as much NOx during daily use than is allowed. Thus, none of the tested Rigged diesels from Opel, Peugeot and Citroën remained within the prescribed emission limits in daily use.



Emission tests of the Deutsche Umwelthilfe

6.15. Other European organizations have also investigated and reported on diesel fraud by various manufacturers. For example, the German environmental organization *Deutsche Umwelthilfe* subjected several Euro 6 diesels from Opel and Peugeot to emissions tests in 2016 and in 2017 in collaboration with the University of Bern (**Exhibit 50**).⁷¹

⁷⁰ TNO report 2016 R11177 dated 10 October 2016.

⁷¹ <u>https://www.duh.de/fileadmin/user_upload/download/Projektinformation/Verkehr/dieselgate/EKI/2020-09-</u> 07_Tabelle_PEMS-Messungen_bis_Sept_2020.pdf.

6.16. This showed that the Peugeot 2008 1.6 BlueHDi 100 emitted 3.7 times more NOx than the permitted Euro 6 standard of 80 mg/km, while the Peugeot 208 BlueHDi FAP 100 emitted 9.7 times more NOx.

HERSTELLER/MODELL	CO2- EMISSIONEN	NOX- EMISSIONEN	NOX- FAKTOR*
Peugeot 2008 1.6 BlueHDi 100	109 g/km	299 mg/km	3,7
Peugeot 2008 1.6 BlueHDi 120	112 g/km	220 mg/km	2,8
Peugeot 208 BlueHDi FAP 100	104 g/km	773 mg/km	9,7
Peugeot 308 BlueHDi 130	136 g/km	25 mg/km	0,3

6.17. The aforementioned tests by the Deutsche Umwelthilfe also showed that the Opel Astra Sports Tourer emitted 6.9 times as much NOx as the permitted Euro 6 standard of 80 mg/km, while the Opel Zafira Tourer 1.6 CDTi emitted 18.4 (!) times more NOx than was allowed.

HERSTELLER/MODELL	CO2- EMISSIONEN	NOX- EMISSIONEN	NOX- FAKTOR*	ERST- ZULASSUNG	LEISTUNG	HUBRAUM
Opel Astra Sports Tourer 1.6 CDTi	133 g/km	546 mg/km	6,8	06.2017	100 kW	1598 ccm
Opel Astra Sports Tourer 1.6 CDTi	134 g/km	554 mg/km	6,9	03.2015	81 kW	1598 ccm
Opel Insignia Sports Tourer 2.0 CDTi	144 g/km	127 mg/km	1,6	09.2017	125 kW	1956 ccm
Opel Insignia Sports Tourer 2.0 CDTi, nach Software Update	191 g/km	365 mg/km	4,6	05.2016	125 kW	1956 ccm
Opel Zafira Tourer 1.6 CDTi	155 g/km	404 mg/km	5,1	2015	100 kW	1598 ccm
Opel Zafira Tourer 1.6 CDTi	151 g/km	995 mg/km	12,4	03.2015	100 kW	1598 ccm
Opel Zafira Tourer 1.6 CDTi	128 g/km	1474 mg/km	18,4	03.2015	100 kW	1598 ccm

British Department for Transport

6.18. Also the British *Department for Transport*, published in April 2016 results of a study of several diesel engines, including the Euro 5 Citroën C4 (**Exhibit 51**). The diesel in question apparently emitted approximately 500 mg/km during the tests, which is more than 2.5 times higher than the Euro 5 standard allowed (180 mg/km).

- 6.19. The same report shows that the Euro 6 Peugeot 3008 has also been subjected to various tests. This test once again shows that Peugeot's Euro 6 diesel emits almost fourteen (!) times as much NOx than is permitted under the Euro 6 standard (80 mg/km) in force at that time. During the *Department for Transport* performed tests, the Euro 5 Peugeot 208 emitted about 600 mg/km NOx, which is more than three times the Euro 5 standard applicable at the time (180 mg/km).
- 6.20. The Euro 5 Vauxhall Insignia (known in the Netherlands as the Opel Insignia) also emitted approximately 1900 mg/km NOx, according to the report, which is more than 10 times as much as allowed under the Euro 5 standard. The Euro 5 Vauxhall Astra (known in the Netherlands as the Opel Astra) was also found to emit 1200 mg/km NOx, more than six times the permitted amount. The Euro 5 Vauxhall Corsa (known in the Netherlands as the Opel Corsa) emitted approximately 1100 mg/km NOx, more than five times more than is allowed under the Euro 5 standard.



6.21. In the report, the *Department for Transport* also indicated that the cars investigated used software that switches the EGR system on or off at a certain temperature:

"We have learned through this investigation that manufacturers are using a temperature dependent strategy to regulate the amount of Exhaust Gas Recirculation (EGR) as part of their emissions control. These temperature-based systems are used in both the older Euro 5 designs and the very latest Euro 6 engines. Manufacturers argue that temperature-based control of the EGR system is essential to ensure the emissions control works reliably during normal vehicle use and over the extended conditions of 100,000 miles."

ICCT report September 2017

- 6.22. In a report from September 2017, the (already mentioned) ICCT (*International Council on Clean Transportation*) also concluded that the Euro 5 and Euro 6 diesels from Opel, Peugeot and Citroën emitted much more NOx than was allowed under the current Euro standards (**Exhibit 52**)⁷². The ICCT has compiled the data from various studies on the NOx emissions of 541 Euro 5 and Euro 6 diesels from various government agencies from different countries in the report. The ICCT then mapped the difference between the NOx emissions of a certain type of diesel car on a roller bench and the NOx emissions under normal driving conditions.
- 6.23. In its report, the ICCT concludes that the Euro 5 diesels from Opel, Peugeot and Citroën score well above the permitted Euro standards. For example, the NOx emissions from Peugeot's Euro 5 diesels of all types were more than *three* times higher than the Euro 5 standard of 180 mg/km, while Citroën's Euro 5 diesels also emitted almost three times more NOx than the permitted 180 mg/km standard. The NOx emissions of Opel's Euro 5 diesels are also far above the permitted standards: all types emitted in excess of *five* times as much NOx as is permitted under the Euro 5 standard of 180 mg/km.



Figure ES-2: Euro 5 diesel passenger car gap between real-world and type-approval CO₂ emission values vs. on-road NO₂ emissions conformity factors by manufacturer.³

6.24. According to the report, the situation is even worse with the Euro 6 diesels of Opel, Peugeot and Citroën: the NOx emissions of the Euro 6 diesels from both Peugeot and Citroën are, according to the ICCT, on average *four* times higher than the Euro 6 standard. In addition, Opel's Euro 6 diesels also emitted more than *seven* times more NOx than the permitted standard of 180 mg/km. The Foundation notes that although an exceedance of 4 times the permitted standard may be worse from a legal perspective than an exceedance of 3 times the standard, the euro 6 diesels were (slightly) less polluting in absolute numbers than the euro 5 diesels. After all, exceeding a standard of 180

⁷² The International Council on Clean Transportation, 'Road Tested: Comparative Overview of Real-World Versus Type-Approval NOx and CO₂ Emissions from Diesel Cars in Europe', September 2017.

mg/km by a factor of 3 leads to higher total emissions (720 mg/km) than exceeding a standard of 80 mg/km by a factor of 4 (320 mg/km).



Figure ES-3: Euro 6 diesel passenger car gap between real-world and type-approval CO_2 emission values vs. on-road NO_x emissions conformity factors by manufacturer.⁴

6.25. Incidentally, the report again shows that not a single car manufacturer met the emission standards:



Figure 1: Boxplots of on-road NO_x conformity factors of individual vehicle tests by manufacturer group and emissions standard.¹²

Transportation and Environment Organisation

6.26. In a report from September 2015, the *Transportation and Environment Organization* ("**T&E**"), a European group focused on promoting sustainable transport, collected data from "*respected testing*

bodies across Europe" showing that diesels from different manufacturers produce high emission levels (**Exhibit 53**).⁷³

- 6.27. T&E stated that testing of actual emissions revealed drastic differences from laboratory tests, such that the models tested emitted significantly more pollutants such as_{CO2} and NOx on the road than in their laboratory tests. *"Testing conducted by the independent International Council on Clean Transportation (ICCT)1 found a typical modern Euro 6 diesel emits 7-10 times more nitrogen dioxides (NOx) on the road than the Euro 6 limit achieved in tests (80mg/km) ", the report said.*
- 6.28. In summary, T&E graphically depicted the widespread deception by the manufacturers of Rigged diesels to meet Euro emissions standards as follows:

The problem is endemic across the car industry – but the performance of individual models and manufacturers varies widely

In tests by the ICCT¹ 12 out of 13 modern diesel cars failed to achieve the Euro 6 limit in on the road. The worst vehicle, an Audi, emitted 22 times the allowed limit. Emissions are highest in urban areas where most people are exposed to the pollution. On average a new diesel car emits **over** 800mg/km of nitrogen oxides driving in town compared to the limit of 80mg/km. Data obtained on around 20 modern diesel cars by T&E shows every major manufacturer is selling cars that fail to meet Euro 6 limits on the road. A minority of vehicles do meet the limits – but most don't. This is because the industry uses cheaper less effective exhaust treatment systems or fails to configure the best systems in a way that minimizes emissions. The cost of a modern diesel after treatment system is just €300.



6.29. The T&E report also found that the system then in place for testing cars in a laboratory with the NEDC test gave 'meaningless results', as actual emissions are a multiple of the test results. While the September 2015 report did not yet provide specific data for diesel engines from Opel, Peugeot and/or Citroën, T&E published a new report in September 2016 in which various models from Opel, Peugeot and Citroën were also subjected to emission tests. T&E again collected data from mainly national

⁷³ Five facts about diesel the car industry would rather not tell you, *Transport & Environment* September 2015.

surveys showing that Opel, Peugeot and Citroën diesels produce unduly high levels of emissions (**Exhibit 54**).⁷⁴ T&E states that the tests showed that the NOx emissions of Peugeot's Euro 5 diesels averaged 3.8 times the emission standard during the tests and that of the Euro 5 diesels from Citroën around 3.9 times. This while the NOx emissions of the Euro 6 diesels from Peugeot averaged 5.3 times the emission standard, those of the Euro 6 diesels from Citroën 4.6 times and those of Opel even an average of 10 times. Opel thus produces the most polluting diesel cars, after Renault and Fiat & Suzuki, according to the T&E report.



6.30. T&E states in its (second) report that Peugeot's rigged software ensures that the emission-limiting systems are switched off at a temperature below 5 °C in all tested models. According to the report, Opel's rigged software would even ensure that the emission-limiting systems are already switched off at a temperature of 17°C.

⁷⁴ Dieselgate: Who? What? How?, *Transport & Environment*, September 2016.



6.31. Finally, the T&E report also shows that Peugeot – after Volkswagen and Renault – has sold and allowed onto the road the most polluting diesels. In close succession comes Citroën also as a car brand that has sold relatively many polluting diesels



Dirty Euro 5 & 6 combined

Der Spiegel

6.32. On 12 May 2016, the German daily newspaper *Der Spiegel* published an extensive article about the fraud committed by Opel with its diesel cars. From research for the magazine 'Monitor' and *Der Spiegel* it appeared that the Opel Zafira contained rigged software that would ensure that the emission control systems would only work at an ambient temperature between 20 and 30 degrees Celsius⁷⁵. It also appeared from the research that the EGR system also only works to a limited extent in this temperature range. This is because the emission control systems would also be less effective if the speed rose above 2,400 rpm, or if the air pressure was lower than 915 millibars (which is the case in an environment of 850 meters or more above sea level).⁷⁶

7. THE (CRIMINAL) INVESTIGATIONS OF VARIOUS GOVERNMENTS INTO PEUGEOT, CITROEN AND OPEL

7.1. Following the announcement of the Volkswagen diesel fraud scandal in 2015, the French government launched various investigations into the NOx emissions of various diesel vehicles from Peugeot, Citroën and Opel. As will be explained below, in line with the studies and reports cited above, investigations by, among others, the French and German governments have shown that PSA and GM cheated to bring NOx emissions below the applicable emission standards when diesel vehicles from Peugeot, Citroën and Opel were subjected to a type-approval test.

Royal Commission

- 7.2. The first investigations by the French government into the diesels of various car manufacturers were carried out at the request of the (then) French Minister for Ecology, Sustainable Development and Energy, Ségolène Royal. An independent investigation committee was appointed (the 'Royal Commission'), consisting of parliamentarians, consumer organisations, NGOs and various ministries. The Royale Commission was set up in October 2015 and started examining 86 of the best-selling diesel vehicles in France, including a number of Peugeot, Citroën and Opel models.
- 7.3. In February 2016, two NGOs that are part of the Royale Commission in collaboration with T&E announced the first test results of 22 diesels⁷⁷. They do so in anticipation of the first official findings of the Royal Commission. These first results show that there is a large discrepancy between the emission values measured during the type approval test of the diesels concerned and those measured when the diesels are actually driven on the road. Opel comes out of the test with its tested diesels as one of the largest polluters, but the diesels from Citroën and Peugeot also appear to emit too much NOx.

⁷⁵ Marcel Rosenbach and Gerald Traufette, 'Experts weisen Opel weitere Abgasmanipulationen nach', *of the mirror*, 12 May 2016 (<u>Exhibit 55</u>).

⁷⁶ https://www.thetruthaboutcars.com/2016/05/gm-europe-swallowed-dieselgate-maelstrom/ (Exhibit 56).

⁷⁷ Eoin Bannon, 'French probe uncovers more misleading emissions data', *T&E*, 29 February 2016, (Exhibit 57).



Résultats NOx des 22 premiers véhicules testés par l'UTAC

Research by L'union technique de l'automobile'

- 7.4. On 28 April 2016, the Royale Commission publishes its first report showing the test results of the first 52 diesels (Exhibit 58: First Report Royale Commission). To this end, the Royal Commission contracted the *L'union technique de l'automobile'* ('UTAC'), to test diesels from different car manufacturers. UTAC designed three different tests for the Royal Commission's examination, all of which would have to be conducted under different conditions that differ somewhat from the type approval tests on a roller bench. The purpose of this is to detect any possibly present rigged software. The Royal Commission approved these various tests.
 - The first test is called 'D1'. In this test a roller bench is used and in principle the NEDC test is performed as it is mandatory under the Test Regulation, except that the various parameters are slightly modified (e.g. the position of the bonnet, the position of the wheels, etc.).
 - The second test is called 'D2' and also takes place on the roller bench. This time the NEDC test is taken as a starting point again, but the first part of the test cycle (in which driving in the city is simulated) is slightly adjusted. The second part of the test is exactly the same as the second part of the official NEDC test, in which driving conditions outside the city are simulated. If no rigged software is present, the emission values for the suburban part of D1 should be virtually the same as the emission values observed for the suburban part of D2 if no rigged software is present there either, the Commission states in its report. The Commission has assumed that a difference of 1.5 times the emission value between D1 and D2 is considered acceptable.

- In the third test ('D3') UTAC wanted to reproduce a NEDC test on the road (i.e. without the use of a roller bench). The NOx emissions of the vehicles are measured during this third test using a PEMS (see para. 4.29 above).
- 7.5. UTAC subsequently subjected 52 diesels from various car manufacturers including Volkswagen, Mercedes, Opel, Citroën and Renault – to the three different tests. The report shows that one of the tested Opels (the Mokka) in the first test (D1) emitted approximately 140 mg/km NOx, far above the current Euro 6 standard of 80 mg/km.



Résultats pour les véhicules relevant de la norme Euro 6

7.6. Subsequently, the report shows that the Opel Zafira and the Peugeot 508 emitted almost 1.5 times as much NOx during the D2 test than during the D1 test.



Résultats pour les véhicules relevant de la norme Euro 6

7.7. The results of the D3 test also show that the various diesels from Opel, Peugeot and Citroën tested by the UTAC emitted much more NOx than allowed. For example, it appears that different versions of the Opel Zafira emit between 800 and 1000 mg/km NOx (more than 10 times more than allowed). The Citroën C4 Picasso, the Opel Mokka, the Peugeot 5008 and the Peugeot 3008 also score far above the permitted emission standards.



(*) Inférieur à 40 mg

Final report of the Royal Commission

- 7.8. In July 2016, the already mentioned final report of the Royale Commission was published (Exhibit 45), in which the test results of all 86 diesels were included. Pages 7 and 8 of the report show that the Royale Commission included the following vehicles in its investigation: five Euro 5 diesels from Citroën, two Euro 6 diesels from Citroën, five Euro 5 diesels from Peugeot, six Euro 6 diesels from Peugeot and four Euro 6 diesels from Opel. All tested models were equipped with an EGR system, the Euro 6 models were also equipped with an SCR and/or an LNT system.
- 7.9. The results of the final report of July 2016 build on the results of the report of April 2016: the tested diesels from Opel, Peugeot and Citroën emitted far more NOx than allowed under the emission standards and are even among the most polluting diesels of those tested. The results show that especially during the D3 test significantly higher NOx emissions are measured than allowed. For example, it appears that several tested Euro 5 diesels from Opel, Peugeot and Citroën emitted the following amounts of NOx during the D3 test:
 - Peugeot 208 (1.6L): 312mg/km;
 - Peugeot 208 (1.4L): 317.8mg/km;
 - Citroen C5 (2L): 318.4mg/km;
 - Citroen C3: 438mg/km;
 - Citroen C5 (1.6 L): 333.9 mg/km;
 - Citroen C4 Picasso (1.6L): 369.2 mg/km;
 - Citroen C5 (2L): 868.4mg/km;
- 7.10. The D3 tests of the Euro 6 diesels from Opel, Peugeot and Citroën show that various models emitted (far) too high amounts of NOx:
 - Opel Zafira (1.6 L): 938.9 mg/km;
 - Opel Zafira (1.6 L): 865.7 mg/km;
 - Opel Mokka (1.6L): 558.8mg/km;
 - Opel Astra (1.6L): 283mg/km;
 - Citroen C4 Picasso (2L): 208.9mg/km;
 - Citroen C4 Picasso (1.6L): 459.6mg/km;
 - Peugeot 5008 (1.6L): 588.7mg/km.
- 7.11. The Royale Commission then concludes in the final report that the tested Euro 5 and Euro 6 diesels from Opel, Peugeot and Citroën exceed the NOx values. The report shows that PSA and GM were given the opportunity to respond to the findings of the Royale Commission and that they provided an explanation for the deviating values. For example, PSA indicated that the effectiveness of the EGR system is indeed reduced at a lower temperature to protect the engine. However, PSA disputed at that time that a temperature threshold had been set below which the EGR system would be inactive.

In addition, PSA takes the position that the measuring equipment used was inadequate, as a result of which higher NOx values would have been measured.

- 7.12. GM came up with a similar statement regarding the Opel Zafira. The partial shutdown of the EGR system at lower temperatures was justified, as otherwise engine blockage could occur. This could lead to safety risks, GM said. Now that the tests of the diesel cars in question have been carried out by the Royale Commission at a temperature of 5 and 7 °C, the Opel Zafira emits more NOx than is allowed under the emission standards.
- 7.13. The Royale Commission concludes its report with recommendations to Opel, Peugeot and Citroën. Part of the recommendations is that the car manufacturers further extend the temperature range for the operation of the EGR system.

Additional research by IFP Energie Nouvelles'

- 7.14. After the (final) report of the Commission in July 2016, additional research was carried out by the organization '*IFP Energy Nouvelles*' ("**IFPEN**"), an organization that conducts extensive research in the fields of energy, transport and the environment. In the process, the D1 and D2 tests are being redone, this time with "additional instrumentation" with the aim of seeking an explanation for the high NOx levels documented in the Commission's July 2016 report, IFPEN said. Therefore, the D3 tests were *not* performed again in this additional study. A total of 10 vehicles were tested in this additional study, one of which was from Peugeot and one from Opel
- 7.15. The 'additional instruments' used by IFPEN in this research included sensors and actuators that read certain signals from the ECD17 that connects the various 'computers' present in the vehicles. This set of instruments provided IFPEN with some insight into the operation of the EGR system in the Euro 5 Peugeot 5008 and the Euro 6 Opel Astra and the LNT system in the Opel Astra.
- 7.16. IFPEN's May 2017 report (**Exhibit 59**), shows that the Euro 5 Peugeot 5008 emits too much NOx under different conditions and that the values shown from the D1 and D2 tests are not in accordance with the NOx emitted during official test conditions. In the part of the D2 test where extra-urban areas are simulated, the emission values were 2 times higher than the Euro 5 standard allowed at the time (180 mg/km).
- 7.17. The IFPEN test shows that the Euro 6 Opel Astra shows no (at least limited) higher NOx values during the test on the roller bench. From this it can be concluded that the Opel Astra emits more NOx when tested under 'normal' operating conditions (not on the roller bench), as the diesel car scored significantly worse on the D3 test.

Research by the DGCCRF in France on Peugeot and Citroën

- 7.18. In the meantime, the Direction Générale de la Concurrence, de la Consommation et de la Repression des Fraudes' ("DGCCRF"), part of the French Ministry of Finance (which carries out activities similar to the Dutch Authority for Consumers and Markets), launched its own investigation in 2016 into Peugeot and Citroën's Rigged diesels.
- 7.19. According to the French daily newspaper *Le Monde* the DGCCRF had apparently obtained an internal document from PSA that talked about placing the Rigged software 'less clearly and visibly' in the diesel cars from Peugeot and Citroën⁷⁸. The DGCCRF also allegedly stated in its report that PSA

⁷⁸ Stephane Mandard, 'Dieselgate: PSA et sa, stratégie global visant à fabriquer des moteurs frauduleux, *Le Monde*, 8 September 2017 (**Exhibit 60**).

had implemented a global strategy aimed at producing and selling fraudulent diesel cars.⁷⁹ In view of the violations found, the DGCCRF estimated the maximum fine for PSA at 5 billion euros.⁸⁰

7.20. In response to the article by *Le Monde*, PSA denied the fraud allegations by stating that PSA "*favours low nitrogen oxide (NOx) emissions in cities while ensuring the best NOx/ CO2 balance on open roads*."⁸¹

Criminal investigation in France into Peugeot and Citroën

- 7.21. In April 2017, following the DGCCRF report, the French Public Prosecutor launched a criminal investigation into emissions from Peugeot and Citroën diesels, focusing on the public health implications of PSA's actions.⁸²
- 7.22. On 9 June 2021, Stellantis announced in a statement that Automobiles Peugeot SA has been officially charged by the French Public Prosecutor in connection with fraud committed in relation to the sale of 1.9 million Euro 5 diesels in Europe between 2009 and 2015 (Exhibit 65). Automobiles Peugeot SA was to pay a deposit of 10 million euros and provide a bank guarantee of 30 million euros to compensate for possible damage. In the statement, Stellantis also states that Automobiles Citroën SA had been summoned by the French public prosecutor to be questioned at the court in Paris on 10 June 2021.

Actions taken against Opel in other countries

Germany

- 7.23. Following the announcement of the Volkswagen diesel fraud scandal in 2015, the German traffic authority KBA also tested the NOx emissions of various vehicles from other manufacturers.
- 7.24. From the report published by the KBA (Exhibit 66)⁸³ it appears that, in a test conducted under the same conditions as the official type-approval test, the Euro 6 Opel Insignia 2.0 L NOx emissions remained well below the emission standard of 80 mg/km. However, when the test was performed at an ambient temperature of 10 degrees Celsius, or under 'normal driving conditions' (i.e. not on a roller bench), the NOx emissions were sometimes up to 5 times more than the emission standard. Also, the tested Euro 6 Opel Zafira 1.6 L, during a test conducted under the same conditions as the official approval test, showed NOx values that were below the applicable emission standards, while the NOx emissions during the test carried out at a ambient temperature below 10 degrees Celsius were as much as 6.5 times the emission standard.
- 7.25. The KBA states in its report that GM had confirmed in response to the report that they used a temperature sensor, whereby the exhaust gas recirculation control equipment (EGR) was (partially) switched off at temperatures below 20 degrees Celsius. Less AdBlue would also be added at an ambient temperature of less than 17 degrees Celsius. This was to protect the engine, according to GM.⁸⁴

⁷⁹ Joel Saget, "Peugeot to be prosecuted in France over 'dieselgate', france24.com (<u>Exhibit 61</u>).

⁸⁰ AFP, 'Dieselgate: Peugeot mis en examen à son tour en France, *Le Monde*, 10 June 2021 (**Exhibit 62**).

https://www.autoexpress.co.uk/car-news/consumer-news-vw-emissions/100844/peugeot-citroen-emissionsprobe-reveals-19m-cars-could; see also https://www.thesun.co.uk/motors/3407516/peugeot-citroen-under-formalinvestigation-after-allegations-of-cheating-in-diesel-emissions-tests/ (Exhibit 63).

⁸² ANP, 'French justice is investigating Peugeot in diesel scandal' *nu.nl* (**Exhibit 64**).

⁸³ Bundesministerium für Verkehr und Digitale Infrastruktur, 'Bericht der Untersuchungskommission "Volkswagen", April 2016, p. 98.

- 7.26. This was the reason for the KBA to enter into talks in April 2016 with GM, among others, about initiating recall actions for Opel's Rigged diesels.⁸⁵According to the media, GM had agreed with other manufacturers to 'voluntarily' recall a number of vehicles as a result of the KBA tests. However, it is unclear whether and to what extent Opel has fulfilled this promise. In that regard, the Foundation remarks that a (complete) 'rectification' of the Rigged diesels is not possible, or at least does not result in a car that meets the expectations of the buyers. After all, always switching the emission-limiting systems "on" leads to a higher consumption of fuel and AdBlue and a different (reduced) driving experience.
- 7.27. In July 2018, the German newspaper *Bild on Sonntag* reported then that the KBA had carried out additional tests with Opel's diesel cars and that they found that there were indications that Opel had manipulated the emission tests, and that the NOx emissions of the diesel cars were often more than 10 times the permitted values .⁸⁶
- 7.28. This was not without consequences. In October 2018, German prosecutors in Ruesselsheim and Kaiserslautern searched Opel's offices. It concerned a raid in search of evidence for the (new) diesel scandal. German prosecutors confirmed to the media that the investigation focused on whether rigged software was used to manipulate emissions tests. The public prosecutors indicated that it would involve the Opel Insignia, the Opel Zafira and the Opel Cascada.⁸⁷ The German Ministry of Transport subsequently ordered Opel to recall 100,000 diesel cars. In addition, the KBA indicated that it had found five illegal defeat devices at Opel.⁸⁸

United Kingdom

7.29. At the beginning of 2021, based on the above-mentioned investigations, a mass damage claim has been filed against Vauxhall in the UK on behalf of duped owners of rigged diesels. In this class action 25% to 75% of the purchase price is to be recovered from Vauxhall.

PSA and GM Confession of Low Temperature Defeat Devices

- 7.30. As explained above, in 2016 PSA admitted to the Royale Commission that the EGR system in Peugeot and Citroën Euro 5 and Euro 6 diesels was deactivated when the ambient temperature was low (around 5 7 degrees Celsius). GM has also admitted to the German KBA that the EGR system in Opel's Euro 5 and Euro 6 diesels was deactivated when the ambient temperature was below 17 degrees Celsius. However, both PSA and GM argued that this was justified because the shutdown of the emission control systems was necessary to protect the engine.
- 7.31. With this explanation, PSA and GM apparently tried to invoke the exception of Article 5 paragraph 2 Emission Regulation, which states that parts that disable emission-limiting systems are not considered a defeat device if *"the instrument is necessary to protect the engine from damage or accidents and to ensure the safe operation of the vehicle"*.
- 7.32. PSA and GM forget that defeat devices are correctly defined as those that reduce the efficiency of the emission control system under conditions that can be expected during normal use of the vehicle. Reaching 17 degrees Celsius (or higher), certainly in the Netherlands, is not a normal temperature

⁸⁵ M. Panait, '630,000 Diesel Cars of German Origin to Be Recalled in Europe, More to Follow', AutoEvolution, 22 April 2016 **(Exhibit 67**).

⁸⁶ AFP, 'Opel reported to have manipulated diesel car exhaust emissions', Deutsche Welle, 14 July 2018 (**Exhibit 68**).

 ⁸⁷ Reuters, 'German prosecutors raid Opel offices in diesel probe', Deutsche Welle, 15 October 2018 (Exhibit 69).
 ⁸⁸ Reuters, 'Around 100,000 Opel vehicles to be recalled in diesel probe: ministry, Reuters, 15 October 2018 (Exhibit 70).

to be expected. The driver of an Opel can therefore expect that the emission control will work normally during normal use of the vehicle - so just below 17 degrees. This also applies to Peugeot and Citroën drivers who can expect emissions control to work below 7 degrees Celsius.

7.33. For the record: figures from the KNMI show that the average monthly temperature in De Bilt does not exceed 17 degrees Celsius throughout the year and is below 7 degrees Celsius for five months. This means that the emission-limiting systems at Opel were generally switched off when used in the Netherlands, and thus the emissions were uninhibited. For Peugeot and Citroën diesels, the emission-limiting systems are out of action for around half of the year.

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Year
Max.	7.1	7.6	8.8	13.1	16.0	18.8	22.3	20.5	17.9	14.2	10.2	7.3	11.7
Average	1.4	2.5	4.7	8.2	12.3	15.2	16.9	16.7	14.2	10.0	5.5	2.7	9.2
Min.	-7.0	-6.7	-2.3	4.3	7.5	11.2	13.9	13.5	10.7	6.0	0.6	-5.7	6.5

Average temperature in De Bilt by month

7.34. The position of PSA and GM is therefore untenable and was also dismissed by the Court of Justice of the EU in December 2020.

CJEU: the Emissions Regulation contains manipulative devices

7.35. The case concerned a preliminary referral at the request of the French investigating judge to the interpretation of the Emissions Regulation and prohibited manipulation devices. AG Sharpston's conclusion⁸⁹ makes no bones about the argument of PSA and GM and states unequivocally that the exceptions to the EU ban on defeat devices in Article 5 paragraph 2 Emissions Regulation "*must be read strictly so as not to invalidate the general rules*".

132. "I would point out that according to settled case law, exceptions should be interpreted narrowly in order not to erode general regulations.(45) In this regard, the interpretation of exceptions cannot go beyond the cases expressly established by the provision in question. (46)"

7.36. According to AG Sharpston, the exception for devices necessary to protect the engine from damage or accidents relate to an unforeseen, sudden event that results in damage or danger, such as injury or death, and not to "wear and tear, loss of efficiency, depreciation of the vehicle due to ageing and gradual clogging of the engine." Following the logic of AG Sharpston's opinion, the limit at which the emission technology is switched off when the temperature falls below 17 degrees Celsius is a manipulation device that is not permitted under the Emissions Regulation.

135. "As far as the literal reading is concerned, I note that it is generally accepted that the term
'accident' refers to an unforeseen, sudden event leading to damage or danger, such as injury or death.
(48) The term "damage" in turn refers to a harm which usually has a severe or sudden cause. (49) That meaning is not contradicted in my view by the terms 'accident' and 'damage' used in the English language version of Regulation No 715/2007. (50)"

[...]

137. "A defeat device can therefore only be justified, under Article 5(2)(a) of that Regulation, if that device is necessary to protect the engine against sudden damage."

138. "The Italian Government's broad interpretation according to which the concept of 'damage' must be stretched to include wear and tear, loss of efficiency and loss of value of the vehicle due to the ageing and gradual fouling of its engine must therefore, in my view, be rejected."

⁸⁹ Conclusion AG Sharpston 30 April 2020, ECLI:EU:C:2020:323 (C-693/18) (Exhibit 71).

7.37. AG Sharpston continues that it is the responsibility of the vehicle manufacturers to ensure that vehicles comply and continue to comply with the limits set by the emissions legislation throughout their normal operation. While it cannot be excluded that the functioning of an emission control system can have a negative effect on the desirability or reliability (in the long term) of the engine, this circumstance does not justify that the emission control system is deactivated during the normal use of the vehicle under normal conditions of use for the sole purpose of protecting the engine against ageing or normal wear and tear.

139. "As the Commission and the French Government have rightly argued, the ageing and fouling of the engine or of an engine component are the inevitable result of normal use of the vehicle. These are the normal and foreseeable consequences of the progressive accumulation of dirt in the engine throughout the normal life of the vehicle under normal conditions of use, which can be counteracted by regular maintenance scheduled over a long period. So it does not include accidents, damage and risks that affect the safe operation of the vehicle."

7.38. AG Sharpston then concludes that the Italian Government's explanation should be rejected, the important consideration being that a broad interpretation of the exception to manipulation devices would result in the effectiveness of emission values being negated. After all, manufacturers can then always easily argue that emission control systems lead to additional wear and tear, which effectively leaves the manufacturers at liberty to be permitted manipulation devices.

140. "Then I come now to the teleological aspect of this question. Having regard to the objectives of Regulation No 715/2007 and, in particular, the objective of protecting the environment and improving air quality in the European Union,(52) the broad interpretation advocated by the Italian Government is, in my view, in no way justified.

141. With that interpretation, the general rule (that manipulation devices that reduce the effectiveness of emission control systems are prohibited) would no longer have any effect.

142. Indeed, vehicle manufacturers have to ensure that throughout their normal lifetime (53), vehicles comply with the limit values laid down in the regulatory framework on emissions and that they operate safely without exceeding them. Even if it cannot be ruled out that the operation of an emission control system may adversely affect (in the long term) the life and reliability of the engine, that finding in no way justifies the deactivation of that system during the normal operation of the vehicle and under normal conditions of use for the sole purpose of retarding the ageing process or fouling of the engine."

7.39. The European Court of Justice has fully affirmed AG Sharpston's reading in its landmark ruling of 17 December 2020, debunking FCA's contrived claim that the defeat devices were necessary for engine protection.⁹⁰ According to the European Court of Justice, permissible engine protection devices can only be used in exceptional situations and not in situations which can be expected to occur in normal operation:

"109 A defeat device which reduces the efficiency of the emission control system is therefore justified in so far as it ensures, in accordance with Article 5(2)(a) of Regulation No 715/2007, that the engine is protected against sudden and exceptional damage.

110 In that regard, it should be noted that the pollution and ageing of the engine cannot be regarded as an 'accident' or 'damage' within the meaning of that provision, since, as the Commission observes, those events are, in principle, foreseeable and inherent to the normal operation of the vehicle.

[...]

⁹⁰ ECJ 17 December 2020, ECLI:NL:EU:C:2020:1040 (C-693/18) (Exhibit 72).

115 In the light of the foregoing considerations, the answer to Question 3(a) and Question 4 is that Article 5(2)(a) of Regulation No 715/2007 must be interpreted as meaning that a defeat device as at issue in the main proceedings, the systematic improvement of the performance of the vehicle emission control system during the approval procedures in order to comply with the emission limit values laid down in this Regulation and thus to obtain approval for those vehicles cannot fall within the scope of the exception to the prohibition of such instruments laid down in this provision relating to the protection of the engine against damage or accidents and to the safe operation of the vehicle, even if the instrument helps to prevent ageing or contamination of the engine.

- 7.40. According to the Court of Justice, the manipulation devices used 'to protect the engine' are therefore illegal. The Court of Justice has, on 6 May 2021, confirmed this line of reasoning in the context of the role of control mechanisms (*inter alia*, by means of software) in systems for reducing emissions.
- 7.41. Although the ruling concerns a different car manufacturer, PSA and GM used exactly the same argument to justify its systematic use of defeat devices. Due to the clear position of the European Court as the highest court that can rule on the interpretation of the Emissions Regulation, it is clear that the defence of PSA and GM is untenable, and that PSA and GM have therefore also used illegal defeat devices in their Rigged diesels.

8. UNLAWFUL CONDUCT BY BOSCH

- 8.1. As mentioned above, Bosch developed and supplied the hardware and software (namely the EDC17) used to control the emission reduction systems of the Rigged diesels. It supplied this EDC17 not only to PSA and GM, but also to other major car manufacturers, including Volkswagen, Audi, Daimler, Porsche and Fiat Chrysler. It is now known that the diesel vehicles they produce have in practice much higher NOx emissions than those produced in the official certification tests and that the EDC17 supplied by Bosch was used to circumvent the emission standards.
- 8.2. Bosch is no 'innocent bystander' in this matter that only supplied a part for the engine control. On the contrary, the Foundation will demonstrate in these proceedings that Bosch was not only aware of the fact that the EDC17 it developed facilitated defeat devices, but that it also knew that its firmware was used in practice by car manufacturers to evade emissions regulations. If it did not actively collude with PSA and GM and other car manufacturers to that end, it has in any case done nothing to put an end to this use, even though as manufacturer and copyright owner of the software it had the means to do so. Bosch thus breached at least one duty of care in failing to prevent its software from being used to circumvent emissions regulations.

Bosch's role in Dieselgate

- 8.3. First of all, it is relevant to note that a large part of the business activities of Bosch (which is perhaps more familiar to the wider public in the Netherlands for household appliances) is focused on the diesel technology sector. This concerns the business sector (already mentioned when the parties were introduced) *Mobility Solutions*, which runs its own Diesel Systems division that competes with other major car suppliers.⁹¹ An article dated 27 January 2016 on the website autonews.com states that approximately 50,000 of Bosch's approximately 375,000 employees work in this sector.⁹² The sector is thus responsible for a large proportion of Bosch's annual sales.
- 8.4. The control systems that Bosch develops for this sector are complex and very valuable. So it's no wonder that Bosch keeps a tight rein on the development and use of its hardware and software. An

⁹¹ Bosch Group Annual Report 2016 (Exhibit 73).

⁹² 'Bosch probes whether its staff helped VW's emissions rigging', Automotive News 27 January 2016 (Exhibit 74)

engineer for a car manufacturer stated in 2015 about the extent to which Bosch oversees the use of its software as follows:

"I've had many arguments with Bosch, and they certainly own the dataset software and let their customers tune the curves. Before each dataset is released it goes back to Bosch for its own validation.

Bosch is involved in all the development we ever do. They insist on being present at all our physical tests and they log all their own data, so someone somewhere at Bosch will have known what was going on.

All software routines have to go through the software verification of Bosch, and they have hundreds of milestones of verification, that's the structure

the car company is never authorised by Bosch to do something on their own."93 [underlining by lawyer]

8.5. On 28 February 2006, Bosch published a press release in which it presented its new EDC – the Bosch EDC17.⁹⁴ In it Bosch states that the EDC17 is "*the brain of diesel injection*" "*that controls every parameter that is important for effective, low-emission combustion*". Bosch further presented the EDC17 as an important contribution to meeting future emissions standards:

"EDC17: Ready for future demands

Because the computing power and functional scope of the new EDC17 can be adapted to match particular requirements, it can be used very flexibly in any vehicle segment on all the world's markets. In addition to controlling the precise timing and quantity of injection, exhaust gas recirculation, and manifold pressure regulation, it also offers a large number of options such as the control of particulate filters or systems for reducing nitrogen oxides. The Bosch EDC17 determines the injection parameters for each cylinder, making specific adaptations if necessary. This improves the precision of injection throughout the vehicle's entire service life. The system therefore makes an important contribution to observing future exhaust gas emission limits."⁹⁵ [underlining by lawyer]

- 8.6. The EDC17 has been implemented since 2007 in vehicles from, among others, Volkswagen, Audi, Porsche, Daimler, BMW, Ford, Fiat Chrysler and in the diesels of PSA and GM. However, the EDC17 was anything but a "major contributor to compliance with future emissions standards." On the contrary, the software of the EDC17 was designed to make it very easy for car manufacturers to circumvent future emissions standards. Because EDC17 controlled all systems of the diesel vehicle, including the emission reduction systems, it was the means by which car manufacturers were able to commit the extensive diesel fraud.
- 8.7. The exact functioning of the hardware and software is still unknown today, because Bosch refuses to give access to it. However, the firmware or software programmed into the ECU of modern cars is very complex and consists of millions of lines of code. Without access to the source code, it is virtually impossible to determine the exact operation of an EDC17.
- 8.8. Nevertheless, in 2017 researchers from the Rohr-Universität in Bochum, Germany and the University of California, San Diego, tried to understand how the EDC17's software works, using various technical documents obtained from tuning websites, in diesel vehicles from Volkswagen and Fiat Chrysler.⁹⁶ It concerned the same EDC17 as was also implemented in the Rigged diesels from Peugeot, Citroën and Opel. In this research, which has a high technical content, the researchers

⁹³ M. Taylor, 'EPA Investigating Bosch on VW Diesel Cheater Software', Car and Driver, 23 November 2015 (**Exhibit 75**).

⁹⁴ Press release 'The brain of diesel injection: New Bosch EDC17 engine management system' Bosch, 28 February 2006 (**Exhibit 76**)

⁹⁵ Ibid.

⁹⁶ M. Contag et al., 'How They Did It: An Analysis of Emission Defeat Devices in Modern Automobiles', *Ruhr University Bochum & University of California* (**Exhibit 77**).

have been able to put almost beyond any doubt on the basis of this documentation that Bosch developed the EDC17, in short, in such a way that it recognizes when the external conditions in which the vehicle is found (outdoor temperature, air pressure, speed and driving time) were equal to, or at least within pre-programmed parameters of the conditions used in official certification tests and that the EDC17 as such therefore qualified as a defeat device.

"Both the Volkswagen and Fiat vehicles use the EDC17 diesel ECU manufactured by Bosch. Using a combination of manual reverse engineering of binary software images and insights obtained from manufacturer technical documentation traded in the performance tuner community (i.e., car enthusiasts who modify their software systems to improve performance), we identify the defeat devices used, how they inferred when the vehicle was under test, and how that inference was used to change engine behaviour. Notably, we find strong evidence that both defeat devices were created by Bosch and then enabled by Volkswagen and Fiat for their respective vehicles"⁹⁷

and specifically with regard to the EDC17 in Volkswagen, which was, however, identical to that in the Fiat 500 under investigation:

"The Volkswagen defeat device is a continually evolving family of devices. All instances are organized around a single condition monitoring block that determines if the vehicle is undergoing testing and points throughout emission-related ECU modules where the result of this determination can affect the behaviour of the module."⁹⁸

- 8.9. The functionality that triggers the activation or deactivation of the emission reduction systems upon detection of conditions indicative of an emissions test situation is referred to in Bosch's technical documentation as the "acoustic condition" of the EDC17, a neutral term that obscures the fact that it is a manipulation device. After all, as explained at length above, the Emissions Regulation prohibits devices which can (partially) switch off emission reduction systems or devices which detect when the vehicle is in a test situation. Bosch knew this very well. From a writ of summons issued against Bosch in the United States ("Third Amended Complaint") it appears that internal emails exist including between Bosch managers and employees discussing the fact that the EDC17 software in diesel vehicles recognizes Volkswagen vehicles when the vehicle is subjected to an emissions test and at that time (partially) switches on the emission reduction systems, a process that is described by employees using the vague term 'cycle-beating'.⁹⁹ The Foundation discusses these e-mails in more detail below.
- 8.10. The investigators further found that the software of the EDC17 was written by Bosch, but that manufacturers could calibrate the software using so-called '*software constants*' included in the '*function sheets*' so that the EDC17 applies specifically to their vehicle:

"The EDC17 ECU is manufactured by Bosch and bought by automakers, including Volkswagen and Fiat, to control their diesel engines. The exact details of the business relationship between Bosch and its customers is not public; however, media reports, court filings [15], and the documentation we have obtained indicates the following basic structure: Bosch builds the ECU hardware and develops the software running on the ECU. Manufacturers then specialize an ECU for each vehicle model by calibrating characteristic software constants whose semantics are explained in the ECU documentation. We have found no evidence that automobile manufacturers write any of the code running on the ECU.

⁹⁷ *Ibid,* p. 2.

⁹⁸ *Ibid*, p. 6.

⁹⁹ *Volkswagen v. Robert Bosch, LLC*, MDL no. 2672 CRB (JSC) (N.D. Cal) (Third amended Volkswagen-branded franchise dealer amended and consolidated class action complaint) (**Exhibit 78**). NB: The Foundation hereby submits a version of the *Third Amended Complaint* in which the e-mails in question are blacked out because US confidentiality rules don't allow you to submit an unedited version.

All code we analysed in this work was documented in documents copyrighted by Bosch and identified automakers as the intended customers"¹⁰⁰

- 8.11. This allowed car manufacturers to determine, for example, which emission reduction systems the EDC 17 would activate or deactivate if the programmed parameters were exceeded. The investigation showed that the EDC17 in the Volkswagen took different measures than the EDC17 in the Fiat 500. Although car manufacturers were thus able to tailor EDC17 to their own vehicles, it is important to note that the parameters which allow EDC17 to verify that the vehicle is in a test situation are (permanently) programmed into the EDC17 software by Bosch and cannot be removed by car manufacturers. It is therefore not the case that Bosch supplied a "neutral" product to the car manufacturers then fraudulently deployed. The EDC17 was developed from the outset with the intention of being able to recognise when the vehicle was in a test situation.
- 8.12. The German/American study is not an isolated case. After the discovery of the Volkswagen scandal, various government agencies launched investigations into Bosch's involvement in the fraud. In 2015, the EPA launched an investigation into Bosch's involvement in Volkswagen's diesel fraud in America. In 2017, German authorities also launched two separate investigations into Bosch's involvement in diesel fraud by Volkswagen and Daimler:

"Three Bosch Managers Targeted as German Diesel Probe Expands

A German probe into whether Robert Bosch GmbH helped Volkswagen AG cheat on emissions tests intensified as Stuttgart prosecutors said they were focusing on three managers at the car-parts maker.

While Stuttgart prosecutors didn't identify the employees, the step indicates that investigators may have found specific evidence in the probe. Previously, prosecutors have said they were looking into the role "unidentified" Bosch employees may have played in providing software that was used to cheat on emission tests.

"We have opened a probe against all three on suspicions they aided fraud in connection to possible manipulation in emissions treatments in VW cars," Jan Holzner, a spokesman for the agency, said in an emailed statement. "All of them are managers with the highest in middle management."

Bosch, which is also being investigated by the U.S. Department of Justice, has been caught up in the VW diesel scandal that emerged in 2015 over allegations its employees may have helped rig software that helped the car maker to cheat emission tests. Earlier this year, Stuttgart prosecutors opened a similar probe into Bosch's role in connection with emission tests of Daimler cars.

A spokesman for Bosch said that while he can't comment on individual employees, the company "takes the overall allegations in diesel cases seriously and has been cooperating fully from the beginning of the probes."

The Stuttgart probe is running parallel to the central criminal investigation in Braunschweig, closer to VW's headquarters. That investigation is targeting nearly 40 people on fraud allegations related to dieselemission software, including former VW Chief Executive Officer, Martin Winterkorn.

Prosecutors' interest extends to multiple units in the VW family -- including luxury brands Audi and Porsche. In addition, Stuttgart prosecutors are also reviewing a third case related to Bosch's cooperation with Fiat Chrysler Automobiles NV on software for diesel engines."¹⁰¹

8.13. The results of these investigations have not been made public, but have led to a substantial fine from the German Public Prosecutor's Office of over 100 million euros. This in any case makes it clear that

¹⁰⁰ Exhibit 67.

¹⁰¹ K. Matussek, 'Three Bosch Managers Targeted as German Diesel Probe Expands', Bloomberg, 29 June 2017 (**Exhibit 79**).

Bosch's role was highly dubious, to say the least, and that various parties at least doubted that Bosch had done everything possible to prevent the fraud.

- 8.14. Bosch obviously realises this too. On 24 April 2018, Bosch issued a press release announcing new policies.¹⁰² In it, Bosch CEO Volkmar Denner refers to the (new) rule that "*the incorporation of functions that automatically detect cycle tests is strictly forbidden*." Further, Denner announced a new policy requirement that "*Bosch products must not be optimized for test situations*."
- 8.15. In doing so, Bosch is effectively acknowledging that its existing hardware and software (i.e. the EDC17) are not compliant. By stating that the incorporation of software which detects when a vehicle is in a test situation is strictly forbidden and that Bosch products must in future no longer be optimised specifically for test situations, Bosch is implying that its then existing products contained prohibited functionalities and were in fact tailored to test situations.
- 8.16. To the best of the Foundation's knowledge, however, Bosch did not go any further than the implicit admission of liability contained in this press release. It continues to officially deny its involvement in and liability for the diesel fraud(s). It is worth noting in this context that Bosch has already reached comprehensive settlements in the USA in three separate cases concerning the presence of EDC17 in diesel vehicles manufactured by Volkswagen, Fiat Chrysler and Daimler. The amounts involved are respectively USD 327.5 million (Volkswagen), USD 27.5 million (Fiat Chrysler) and USD 63 million (Daimler).¹⁰³ In addition, Bosch is currently a co-defendant in three further cases related to the implementation of the EDC17 in diesel vehicles from BMW, General Motors and Ford.¹⁰⁴ In Germany, Bosch has paid fines to the German Public Prosecution Service for its role in the Volkswagen diesel scandal.¹⁰⁵
- 8.17. These circumstances do not square with Bosch's apparent assertion that it was not involved in the diesel fraud, or at least that it cannot be held liable for the damage caused by it.

Concrete indications for cooperation between Bosch and the automobile manufacturers

8.18. These are the general connecting factors for the Foundation's assertion that Bosch can be held liable for the damage suffered by the Aggrieved Parties as a result of the presence of EDC17 in the rigged diesels. In view of (i) the results of the investigation into the functioning of Bosch's software, (ii) the governmental investigations into Bosch's involvement in the diesel fraud, (iii) its apparent willingness to settle civil lawsuits, possibly in order to prevent incriminating information from becoming public, and (iv) the content of its press release in 2018; it can, however, already be safely assumed on the basis of this that it knew that the EDC17 was a manipulation device and that it knowingly participated in its implementation, or at least did nothing to prevent its use by manufacturers to circumvent emissions standards.

¹⁰² Press release Bosch PI10617 BBM FF/KB dated 25 April 2018 (Exhibit 80).

¹⁰³ Volkswagen v. Robert Bosch, LLC, MDL no. 2672 CRB (JSC) (N.D. Cal) (Class Action Settlement Agreement and Release (Amended)); In Re Chrysler-Dodge-Jeep Ecodiesel Marketing Sales Practices, and Products Liability Litigation Case No. 3:17-md-02-777-EMC, art. 4.10 and 10.1 (Amended Consumer and Reseller Dealership Class Action Settlement Agreement and Release); In Re Mercedes-Benz Emissions Litigation) Civil Action No. 2:16-CV-881 (KM) (ESK), par. 11, exhibit A, art. 4.3 and 11.1 (Declaration of Steve W. Berman in support of motion for preliminary approval) (Exhibit 81).

¹⁰⁴ Rickman v. BMW or N. Am., civ. No. 18-4363 (KM) (JBC) (D.N.J.); In re Duramax Diesel Litig., Case No. 17-11661 (E.D. Mich.); Counts v. General Motors, LLV, No. 1:16-CV-12541-TLL (ED. Mich.); Gamboa et al. v. Ford Motor Co., Case No. 18-10106 (E.D. Mich.) (Exhibit 82).

¹⁰⁵ A. Krok, 'Germany slaps Bosch with \$100 million fine for role in Dieselgate', *CNET* 23 May 2019 (**Exhibit 83**).

- 8.19. Below, the Foundation will explain why it is convinced that Bosch was *fully* aware that the EDC17 was being used to implement a defeat device and that it was also aware that it was being used in practice by PSA and GM to circumvent emission standards.
- 8.20. For this, the Foundation is reliant on the emails cited in the Third Amended Complaint. The Foundation submits as **Exhibit 68** a partially blacked-out version of the Third Amended Complaint that quotes the various emails relevant to these proceedings. Although they mainly concern Volkswagen's use of EDC17, these documents are highly relevant to the present proceedings. This is because the EDC17 implemented in the rigged diesels is not fundamentally different from the EDC17 implemented in Volkswagen's diesel vehicles. It is of course completely implausible that the EDC17 in general was developed by Bosch to recognize when the vehicle in which it was implemented was subjected to an emissions test, but that the EDC17 modules produced for PSA and GM did not have that functionality. It is also highly implausible that if Bosch was fully aware that the EDC17 was also used in practice by Volkswagen to circumvent emission standards, Bosch would not have been aware of this in the case of Peugeot, Citroën and Opel.
- 8.21. In an email exchanged between Bosch executives, one executive stated that Bosch would have a potential defence if the "*cycle-beating*" that occurred at Volkswagen became public knowledge:

"PLEASE DO NOT FORWARD

In my view this discussion does not get us anywhere. Customized, we set requirements usually without much thought" around and do not even notice that it may be a cycle beater. So we do not break the law; after all we are not acting grossly negligent."¹⁰⁶

- 8.22. Regardless of what this director thinks about the legal consequences of Bosch's involvement, it is clear from this e-mail that the fact that the EDC17 was a manipulation device was known and discussed at the highest level.
- 8.23. In March 2007, a Bosch engineer asked her colleagues in an email if the EDC17 was a "cycle-beater" and complained that "*how bad does it have to be, that we even fake the documentation?*" In an e-mail in 2008, another Bosch associate acknowledges that the "acoustic function," as the EDC17 is called in VW's technical documentation, was in fact "cycle recognition," since it was essentially a program that recognized when the vehicle was subjected to emissions tests and adjusted the systems accordingly (marginal number 129 of the Third Amended Complaint). Here, too, the Foundation finds evidence that it was generally known within Bosch that EDC17 was, or at least contained, a manipulation device.
- 8.24. Further evidence appears to be provided in a 2008 letter from Bosch to Volkswagen expressly demanding that Volkswagen indemnify it against any foreseeable liability resulting from the use of the defeat device developed by Bosch Bosch explicitly designates the software as 'defeat device', the term used in the English translation of the Emissions Regulation for a manipulation device which Bosch knew was prohibited "*prohibited pursuant to US Law*" (marginal number 102 of the Third Amended Complaint).
- 8.25. In another email between Bosch employees, which has the telling title "*Extending the CycleBeater with D5240*. The 'D5240' in the title refers to a specific task in the software development spreadsheet shared between Volkswagen and Bosch (margin number 138-139 Third Amended Complaint).

¹⁰⁶ Exhibit 68, par. 99.

8.26. Other documents discuss the adjustment of the 'urea dose' in an SCR emission control system and show that Bosch knew that this bypass technique was used for 'cycle-beating':

"Different Applications at Emissions cycle/normal operation?

- 1. By distinguishing between precontrol and alternative precontrol, the urea dosing in the same vehicle can be designed differently.
- 2. The switching conditions are another function linked to the 'acoustic function', which can distinguish between normal operation and operation in an emissions measuring cycle.
- 3. By combining these two functions and corresponding parameters, the system can be designed so that the SCR function in the emissions measuring cycle meets the legal requirements. In all normal driving conditions, significantly less urea is injected, thereby extending service intervals for refilling urea and avoiding the risk of odour from dosing slightly excessive urea."¹⁰⁷
- 8.27. In a reply to this document, another Bosch executive explained the following:

"Short answer to your questions:

The function is the so-called "online dosage", developed in 2006/7.

This was jointly designed by the 4 German OEMs and implemented "interface conformance" with the help of DS / EAS and DS-ET, without System development contribution by RB.

The background for the function is to influence the metering quantity in certain operating points (for example also ammonia slip, ...) with the additional effect of saving metering, which is advantageous due to the limited AdBlue tank volume.

All 4 OEMs use the Fkt, but in slightly customized variants.

Since the function contains a lot of degrees of freedom, it was agreed with the 4 OEM that the application responsibility lies with the OEMs and that also the "justification" of the function in the case of the Authorities through the OEMs. This was also documented in a protocol.

Suggestion for further action.

We provide (....) with information about the function and our agreements with the OEM, and then jointly determine if and what further action is necessary."¹⁰⁸

- 8.28. PSA and GM were one of the 'OEMs' (Original Equipment Manufacturers). This e-mail again makes it clear that Bosch was familiar with the operation and use of the EDC17 up to the highest level. The fact that it may have been agreed with the car manufacturers that responsibility for use rests with them does not, of course, release Bosch from its duty of care towards third parties, such as the Aggrieved Parties.
- 8.29. Due to confidentiality obligations imposed in the United States, the Foundation does not have access to the emails themselves. Insofar as the Court in these proceedings will not order Bosch ex officio to dispute these documents and correspondence specifically conducted with regard to PSA and GM, the Foundation will file incidental claims for this purpose pursuant to Article 843a DCCP. This will, of course, include requests for additional emails and documentation specifically relating to Bosch's knowledge of the use of the EDC17 in the Rigged diesels. In the opinion of the Foundation, however, on the basis of the foregoing, it has already sufficiently demonstrated Bosch's knowledge of the use of the section and that this knowledge and the resulting liability should be assumed as established unless there is evidence to the contrary.

¹⁰⁷ *Ibid*, para. 156.

¹⁰⁸ *Ibid*, para. 157.

Conclusion

- 8.30. It follows from the above that the EDC17 developed by Bosch, to which it can claim copyright, was capable of recognising when the vehicle in which it was implemented was subject to an emissions test. This clearly qualifies the EDC17, or at least that functionality, as a manipulation device within the meaning of the Emissions Regulation. There is no doubt that Bosch was aware that this process, which it refers to internally as "cycle-beating," was in breach of the applicable emissions regulations.
- 8.31. It is also clear from the cited e-mails that Bosch was aware that the EDC17 was also used by Volkswagen to circumvent emissions standards. Bosch, however, has failed to shoulder its responsibility in this regard by prohibiting the use of the software for illegal purposes. On the contrary, it has apparently out of commercial interest justified internally the use of the manipulation device by pointing out the possibility of downplaying its role and invoking possible indemnity should the nature of the software become publicly known.
- 8.32. The EDC17 found in the Volkswagen and Fiat Chrysler diesel vehicles under investigation are essentially the same as the EDC17 implemented in the Rigged diesel vehicles. While car manufacturers were able to choose how EDC17 used the vehicle-specific emission control systems to meet the applicable emission standards during detected test conditions, only Bosch had the ability to modify the underlying software that detected the test conditions. In other words, car manufacturers could not tune EDC17 so that it would no longer detect that the car was subject to an emissions test.
- 8.33. From the investigations discussed in chapter 6 and 7, as well as GM's admission to the 17-degree Celsius limit and PSA's admission to the 7-degree Celsius limit, it is clear that the EDC17 in the diesel vehicles examined turned the emission reduction systems on and off under certain conditions. The fact that the way in which EDC17 disguised the excessive NOx emissions in the case of the Rigged diesels may have been different from that in the case of diesel vehicles of other makes is, as mentioned above, irrelevant for Bosch's liability. In view of Bosch's knowledge of the actual use of the EDC17 to circumvent emission standards at Volkswagen and its intensive monitoring of the use of its software, it is highly implausible that it was not also aware that its software had been used by PSA and GM to circumvent emission standards. Bosch thus failed to exercise the due care that could have been expected of it as the manufacturer of this essential operating system, and is directly liable in tort for the damage caused by it.

Part III. LEGAL ARGUMENTATION

9. UNLAWFUL ACT OF DEFENDANTS

Starting point: unlawful acts of (the predecessors of) Stellantis (statement of facts)

- 9.1. All studies into the Peugeot, Citroën and Opel Rigged diesels show that the test results in actual use deviate significantly from the results obtained during the official tests (on the roller bench), resulting in the emission of up to 14 times as much harmful NOx as is legally permitted. PSA and GM did this by calibrating the software in the vehicles in such a way that it only fully switched on the emission control systems under conditions equal to official test conditions, and (partially) switched them off when conditions outside the parameters of official test conditions, which was very often the case in actual use of the vehicle. PSA and GM have admitted that their emission control systems were turned off when the outside temperature was either 17 degrees Celsius (Opel) or 7 degrees Celsius (Peugeot and Citroën).
- 9.2. Under Article 5(2) of the Emissions Regulation, it is not permitted to use manipulation devices that reduce the effectiveness of the emission control system. However, this is exactly what PSA and GM have done. In any event, they deployed the following defeat devices:
 - one or more sensors that detect that the vehicle is on a roller bench and allows the reduction systems (at a 'cold' start) to function optimally for as long as possible.
 - one or more temperature sensors that switch off the reduction systems at ambient temperatures below 17 or 7 degrees Celsius.
- 9.3. In addition, according to Article 4 paragraph 2 Emission Regulation PSA and GM were obliged to ensure that "exhaust and evaporative emissions are effectively limited in accordance with this Regulation throughout the normal life of the vehicles under normal conditions of use". That this is not the case is clear now that every investigation shows that they have violated the applicable emission standards.
- 9.4. It is clear that PSA and GM have used prohibited defeat devices to test their Rigged diesels. After all, all studies into diesels from Peugeot, Citroën and Opel have shown that there are major differences between the official measurements on the roller bench and the measurements during actual driving conditions. In addition, PSA and GM have admitted to turning off their emission control systems under certain temperatures. It is therefore obvious that the fraud has been committed with all Rigged diesels that had to meet the Euro 5 and Euro 6 emission standards, and that all these Rigged diesels therefore contain prohibited defeat devices.
- 9.5. The statement made by PSA and GM that while they use instruments that disable their emission control systems, they do not qualify as defeat devices because they are necessary to 'protect the engine' is untenable and implausible in this state of affairs. In its judgment of 17 December 2020, the European Court of Justice made it clear that car manufacturers can only invoke such a protection defence in exceptional cases. This is in any event not the case if these systems do not work below an outside temperature of 17 degrees Celsius (Opel) or 7 degrees Celsius (Peugeot and Citroën) (which is a situation that occurs almost daily in the Netherlands and many other countries in the EU, but in any event occurs at night.). Such a justification for defeat devices cannot therefore be invoked, because honouring this appeal would de facto render the obligations under the Emissions Regulation and national regulations a dead letter.

Liability of Stellantis (Article 6:162 of the Dutch Civil Code)

- 9.6. As detailed in this writ of summons, Stellantis' predecessors in law have acted unlawfully in various ways. This includes at least the following actions:
 - PSA and GM have extensively cheated on the emissions of their diesel engines by evading legal emissions standards using prohibited defeat devices that (partially) disable the emission control systems when the vehicles were not within test conditions.
 - By using these defeat devices, PSA and GM have violated the prohibition in Article 5 of the Emissions Regulation. With the judgment of the Court of Justice of 17 December 2020, it is established that these violations are not an exception to the obligations under the Emissions Regulation.
 - The Peugeot, Citroën and Opel Rigged diesels also fail to meet applicable emissions standards as a result of the fraud, producing up to 14 times more emissions during daily use than measured in official tests. This also makes the Rigged diesels non-compliant within the meaning of Article 7:17 of the Dutch Civil Code.
 - PSA and GM had applied for and obtained a European type approval for each model, knowing that the Rigged diesels fell far short of the applicable emission standards under normal driving conditions. As a result, all certificates of conformity issued in the Netherlands (by PSA and GM and/or their Importers) were also incorrectly issued. Despite their knowledge of the nonconformity of the Rigged diesels and the great danger this entails for the environment and public health, PSA and GM marketed the Rigged diesels in the Netherlands and thereby acted contrary to their due care.
 - The danger to public health has also materialized. This already follows (among other things) from the consequences of the nitrogen crisis in the Netherlands (to which the Rigged diesels of Peugeot, Citroën and Opel as popular cars have made a greater contribution than they should have on the basis of the applicable regulations) and the recent ruling in England which, for the first time, has identified car pollution as the cause of death of a young girl.
 - Finally, PSA and GM have widely misled the market by touting and selling the Rigged diesels as "clean". As corporate leaders, they had the say and control over all aspects of the Rigged diesels distributed in the Netherlands. This concerns (among other things) marketing, advertisements and other commercial statements intended for and aimed at the Dutch market. PSA and GM, in addition to their role as manufacturers of the Rigged diesels, were (ultimately) responsible for the large-scale deception of the Dutch market. This deception stimulated the sale of Rigged diesels and thus increased the damage.
- 9.7. These acts each individually but certainly in conjunction with each other constitute an unlawful act for which Stellantis (as the legal successor of PSA and GM) is liable under Article 6:162 et seq. of the Dutch Civil Code.

Liability of Importers (Article 6:162 of the Dutch Civil Code)

- 9.8. The Peugeot, Citroën and Opel Importers had a central role in the import, marketing, advertising and other commercial expressions regarding the Rigged diesels.
- 9.9. To begin with, the Importers are responsible for, or at least have been involved in, the (licence) registration with the RDW of all Rigged diesels in the Netherlands. The Foundation infers this, among other things, from the fact that it appears from the RDW's recall register that all recalls relating to

Peugeot, Citroën and Opel vehicles are reported by the Importers. The Foundation assumes that the various certificates of conformity issued for the Rigged diesels were sent to the RDW by the Importers. The Importers are then responsible for the sale of the imported cars to the Dutch dealer network.

- 9.10. As a party involved in the import and distribution of the Rigged diesels, the Importers have a separate obligation to verify that the Rigged diesels complied with the applicable emission standards. In view of this position and the associated responsibility, they cannot hide behind the fact that the EU type-approval (as the basis of the certificates of conformity) was obtained outside the Netherlands. Insofar as they state that they were not aware of the fraud which the Foundation disputes since the Importers are part of the group that was then led by PSA or GM (and now Stellantis) they are liable for risk and the fact that the Rigged imported into the Netherlands did not meet the emission standards (also) comes for their account and risk.
- 9.11. The Importers are also the owners or administrators of the Dutch websites of Peugeot, Citroën and Opel that are operated under the domain names <peugeot.nl>, <citroen.nl> and <opel.nl>.nl. This follows, among other things, from the general user conditions that can be consulted at the bottom of the website under the link 'disclaimer'.¹⁰⁹ The contact details of the Importer are clearly stated at the top of the conditions and it follows that it is responsible for the website (art. 3:15d DCC).
- 9.12. On the websites of Peugeot, Citroën and Opel, in the Relevant Period, many misleading advertisements and other marketing expressions were made with regard to the Rigged diesels. The Foundation has given various examples of these in this writ of summons. In addition, it is undoubtedly plausible that the Importers are (jointly) responsible for advertising or marketing expressions and/or press releases that relate to the Dutch market and that have taken place outside the website of the Importers.
- 9.13. All these marketing expressions boil down to the suggestion that the Rigged diesels are 'green' or 'clean', or at least meet the strict emission standards, while that was clearly not the case. In addition to various unfair commercial practices vis-à-vis consumers (both buyers and lessees), this constitutes a tort pursuant to Section 6:162 of the Dutch Civil Code because the Importers misled the Dutch market even though they knew as part of the relevant group (or should in any case have known and/or should have ascertained the correctness of the statements) that the information provided was incorrect.

Liability of GM (Article 6:162 of the Dutch Civil Code)

9.14. As already explained above (paragraphs 2.9 ff), GM sold Opel to PSA in July 2017. However, it is unclear whether this transaction affected all assets, particularly GM's past operations, and whether *all* liability has passed to PSA. To the extent that GM is still liable - for which Stellantis (as PSA's legal successor) cannot be held liable because PSA did not acquire it from GM at the time - GM remains liable for its share of the said actions mentioned above in paragraph 9.6.

Liability of Bosch (Article 6:162 of the Dutch Civil Code)

9.15. The large-scale fraud in the diesels of Peugeot, Citroën and Opel would not have been possible without Bosch. As explained in detail in this writ of summons, Bosch acted unlawfully in several ways:

¹⁰⁹ <u>https://www.peugeot.nl/tools/disclaimer.html;</u> <u>https://www.citroen.nl/disclaimer.html;</u> <u>https://www.opel.nl/tools/legal-notice.html.</u>

- Bosch is at the heart of Dieselgate in Europe and the US as it supplied a vital part for diesel vehicles to several car manufacturers (including PSA and GM) (namely the EDC17) that enabled the car manufacturers to evade emissions regulations.
- Without Bosch's active cooperation in the development of the EDC17 and the associated software, PSA and GM would not have been able to commit the large-scale diesel fraud. In addition to developing, manufacturing and supplying the EDC17 to PSA and GM, Bosch also worked closely with them to test, calibrate and parameterise the software in the EDC17 that controls the entire combustion process.
- Bosch *knew* that the EDC17 it developed was a defeat device and the Foundation assumes from the very beginning, but in any case after this emerged from investigations - that its hardware and software was used in practice by car manufacturers, and specifically also by PSA and GM, to evade emission regulations. If there was no collusion, Bosch certainly did nothing to stop this fraud (although, as the owner of the software, it could have done so).
- 9.16. By these acts, Bosch, together with PSA and GM, committed an unlawful act and is directly (jointly and severally) liable for the damage caused by this pursuant to Article 6:162 of the Dutch Civil Code. In addition, Bosch did not exercise the due care that could be expected of it as manufacturer of this essential operating system, which constitutes an independent wrongful act.

10. DAMAGE

- 10.1. As already discussed, the Aggrieved Parties have suffered damage as a result of the wrongful acts of PSA and GM (the legal predecessors of Stellantis), their Importers and Bosch. This damage consists of the amount by which the Victims paid too much for their Rigged diesels, referred to as the *overcharge*. It concerns the difference between the price that the buyers paid for the Rigged diesel and the price they would have paid if the defendants had not misled them and had supplied them with a legally compliant vehicle. For lessees, the *overcharge* pertains to the overcharged lease fee for the Rigged diesel in question.
- 10.2. The overcharge referred to above is made up of among other things the following elements:
 - The non-compliance of the Rigged diesels as a result of the fact that they emitted much more nitrogen oxides than legally permitted, with all the consequences for the environment and public health, including of course the health of the user and his family.
 - The restrictions on use that are increasingly being introduced with regard to the non-conformity of the Rigged diesels. This concerns the risk of partial or total bans on driving Rigged diesels, as is already the case in several Dutch inner cities. As a result, the Rigged diesels can no longer be used there. This would have been a reasonably foreseeable consequence at the time of purchase/lease of any Rigged Diesel if the Aggrieved Parties had been properly informed about the dramatic performance of the Rigged diesels.
 - The limitation in the user experience that replacement or adaptation of the existing defeat devices would entail, in order to make the emission control systems continuously operable. In that case, there is a much higher consumption (of both diesel and the various filters and additives in the emission-limiting systems) and the user experience is considerably less (as far as noise and the 'feeling of performance' is concerned).
- 10.3. This damage is causally related to the unlawful acts of PSA and GM, their Importers and Bosch. After all, without the large-scale fraud with defeat devices in diesels from Peugeot, Citroën and Opel –

which would not have been possible without Bosch as not only supplier of the EDC17 but also as actively involved in the (software) implementation of the defeat devices - these do not arise. In addition, there would have been no *overcharge*, at least it would have been considerably less if PSA and GM and their Importers had correctly informed the market about the existence of the defeat devices, or at least the actual properties of the Rigged diesels, or if Bosch - insofar as it was not already actively involved beforehand - had closed the door by prohibiting the use of its software for such illegal purposes.

- 10.4. In these proceedings, the Foundation will first request a declaratory decision that Stellantis, its Importers and Bosch are liable for this damage. It will then substantiate this damage in more detail at a later stage of the procedure. The starting point for this is the claim settlement as set out by the Foundation in marginal number 10.1, which, in brief, boils down to the following:
 - the overcharge is calculated on the list price determined for each Peugeot, Citroën and Opel model. This is the new price that was determined per country when a model was put on the market by PSA and GM or their Importers. Insofar as this information is no longer available, the Foundation will keep to the registered value of every Rigged diesel, as stated in the vehicle registration register of the RDW.
 - thus establishing the damage suffered by the first purchaser. The same *overcharge* applies to (possible) successive buyers; after all, they also paid too much for their second-hand Rigged diesel. However, because the first buyer made a higher profit on the sale than on actual knowledge due to the actual passing-on of the *overcharge*, their *overcharge* is reduced proportionally. The result is that the overcharge has to be divided between all successive buyers of a Rigged diesel according to whether the overcharge remained in situ with them.
 - in a lease structure, the lessor, as purchaser, is also entitled to the *overcharge*. After all, the (residual) value of the Rigged diesel is lower than it would have been if the facts had been correctly presented. In doing so, he must allow the higher lease income to be deducted. After all, the lessee has also paid too much for the lease of the Rigged diesel and is therefore entitled to the related *overcharge* (i.e. the value of the car that determines the basis of the periodic lease fee), in the form of overpaid lease instalments.
- 10.5. Based on these principles, the damage suffered by Aggrieved Parties can be determined per Rigged diesel and distributed among the Aggrieved Parties by means of an allocation formula to be determined. The Foundation will provide the exact number (at this time estimated at approx. 94,000 for Opel and 300,000 for Peugeot and Citroën) and give concrete form to the precise *overcharge* at a later stage of the procedure.
- 10.6. Insofar as it turns out that a concrete damage calculation is not possible, the Foundation will request the Court to determine the damage per Rigged diesel by means of profit transfer (Article 6:104 of the Dutch Civil Code). After all, the situation in the present case is exactly what the legislator had in mind here:

"The idea behind this provision is that it was considered unreasonable to leave unauthorized profits obtained at the expense of another to the acquirer, whereby the other party probably suffered damage which by its nature cannot be properly determined".¹¹⁰

10.7 Finally, if, in the opinion of the Court, the surrender of profits cannot form a good basis for a damage calculation and the damage cannot be determined with sufficient accuracy, the

¹¹⁰ T&C Property law, note 1 to art. 6:104 BW (with reference to PG).

Foundation will request the Court to estimate the damage per Rigged diesel (Article 6:97 of the Dutch Civil Code).

11. APPLICABILITY OF WAMCA

11.1. In the opinion of the Foundation, the claims it makes on behalf of the Aggrieved Parties should primarily be assessed on the basis of the WAMCA.

Temporal application

11.2. The acceptance of the Amendment of the Member of the House of Representatives, Van Gent¹¹¹ has resulted in the WAMCA not only applying to class actions that relate to events that took place after 15 November 2016 (the date on which the initial WAMCA bill was presented to the House of Representatives), but also to events that occurred before this date, provided that they continued after that date.

"In the theoretical case of a series of events occurring both before and after November 15, 2016, the law will apply as it stands at the time the last event to which the claim relates occurred. The amendment assumes that in that case, the WAMCA also applies to events prior to 15 November 2016."¹¹²

- 11.3. The present case demonstrates that an unlawful act committed before November 15, 2016, but continuing thereafter, is far from theoretical.
- 11.4. The Foundation charges Stellantis et al¹¹³ firstly, that it deliberately tuned the EDC17 developed by Bosch in its diesel vehicles in such a way that in practice the diesel vehicles were significantly more polluting than allowed under the applicable Euro 5 and 6 emission standards. Secondly, the Foundation charges Stellantis et al with having certified the diesel vehicles on the occasion of their importation into the Netherlands, or at least having given an order to do so, whereby it among other things deliberately created the justified expectation that the vehicles complied with the applicable emission standards. And finally, the Foundation charges Stellantis et al that, despite the aforementioned knowledge, they did not remove the defects but deliberately allowed them to exist and disputed their existence, or at least tried to cover them up.
- 11.5. Any software updates (whether or not in the context of possible recall actions) do not alter this because even if these updates had already been implemented (which the Foundation disputes) this only occurred after 15 November 2016, and therefore too late to remove the acts committed before 15 November 2016 from the scope of the WAMCA. Moreover, these updates cannot remove the non-conformity. Even if the software in the Rigged diesels were tuned so that the emission reduction systems were always fully operational, the engines' NOx emissions would not remain below the limit under all circumstances. In addition, this would create other shortcomings (e.g. increased fuel consumption, earlier wear and tear or "full" filters and an overall reduction in the user experience of the diesels). This would therefore still not have resulted in a car on the market that met the current emissions regulations and the created expectations (i.e., fuel-efficient and clean). This has been explained in detail above under the facts.
- 11.6. The Foundation also blames Bosch for the fraud. First, Bosch developed the hardware and softwarethe EDC17 that allowed the manufacturer to circumvent emissions standards. The Foundation

¹¹¹ Parliamentary papers II 2018-2019, 34 608, no. 13 (Van Gent Amendment) (Exhibit 84).

¹¹² *Ibid*, p. 2.

¹¹³ By which in this section is meant: (i) Stellantis NV which as legal successor is responsible for the acts of PSA and GM as manufacturers of Peugeot, Citroën and Opel in the Relevant Period, (ii) GM in the event that it has not transferred all assets in respect of Opel to PSA, (iii) the importers of Peugeot, Citroën and Opel and (iv) Bosch.

does not rule out the possibility that this was explicitly agreed with the car manufacturers, which would make Bosch one of the fraudsters. But even if this is not the case, Bosch knew at a very early stage that the EDC17 was actually used by Stellantis to evade the emission standards, as Bosch was actively involved in the implementation and parameterisation of these control or management systems for the engine of every diesel vehicle and, moreover, during periodic maintenance when updates were made to the software. Although it had *in any* event observed, when updating the software or when (introducing) a new model, that the software had been adjusted in such a way that the emission reduction systems of the vehicle in question were only activated under certain circumstances, it did not draw attention to this and did not do anything to prevent or further inhibit it, although it was in its power to do so as the party entitled to the software. This makes Bosch *at least* an accessory to the perpetuation of the fraud.

- 11.7. Under the applicable Dutch law, Stellantis et al. have a general duty of care to only place diesel vehicles on the Dutch market that comply with the applicable emission regulations. Knowingly breaching this obligation is fraudulent and constitutes an unlawful act This fraud and the damage caused by it continues to this day.
- 11.8. In the Foundation's view, this fraud should be viewed as a single event for purposes of the applicability of the WAMCA, whereby the events on which the Foundation bases its collective claims to the extent that they occurred prior to November 15, 2016 continue after November 15, 2016. In the unlikely event that the unlawful act would have to be established per imported diesel vehicle, the WAMCA would still apply to all claims brought by the Foundation because the defendants' obligation to report the fraud in respect of any diesel vehicle that was introduced to the Dutch market before 15 November 2016 continues to this day. This means that there is a series of events that took place both before and after 15 November 2016.
- 11.9. Only to the extent that the court should unexpectedly find that the WAMCA does not apply to the Foundation's claims to the extent that they relate to diesel vehicles sold/leased or registered in the Netherlands prior to 15 November 2016, the Foundation requests your court to adjudicate that portion of the claimed declaratory decisions under the then applicable WCAM (Class Actions (Settlement of Large-scale Losses or Damage)), and only adjudicate the portion of the claims relating to the diesel vehicles sold/leased or registered in the Netherlands after 15 November 2016 under the WAMCA. In that case, the Foundation requests the Court to give it the opportunity to adjust its claims.

Writ of summons requirements under the WAMCA (overview)

- 11.10. Section 1018c (1) under a through e of the Dutch Code of Civil Procedure, which was implemented by the WAMCA in the Dutch Code of Civil Procedure, sets a number of further requirements to which this summons must conform. An explanation of the events relevant to the collective claims (Section 1018c subsection 1 paragraph a of the Dutch Code of Civil Procedure) has already been discussed at length in the factual section above.
- 11.11. The Foundation will now address in turn:
 - the description of the persons whose interests it is seeking to protect (Section 1018c(1)(b) of the Dutch Code of Civil Procedure);
 - the commonality of the questions of fact and law to be answered, their bundling ability and the extent to which the claims instituted promote effective and efficient legal protection of the represented group (article 1018c paragraph 1 sub c DCCP in conjunction with 1018c sub 5 sub b DCCP in conjunction with article 3 :305a paragraph 1 of the Dutch Civil Code);

- the admissibility of the Foundation (Article 1018c paragraph 1 sub d DCCP in conjunction with 3:305a of the Dutch Civil Code); and
- the suitability of the Foundation to be appointed as Exclusive Representative Entity (Article 1018c (1)(e) of the Dutch Code of Civil Procedure).

Description of narrowly defined group (Section 1018c (1) (b) of the Dutch Code of Civil Procedure)

- 11.12. In these proceedings, the Foundation represents the interests of the Aggrieved Parties (as stated above in par. 3.5 defined). This concerns all (first and successive) buyers and all lessees of the Rigged Diesels (always with the exception of the Defendants themselves) that were sold, leased and/or registered in the Netherlands during the Relevant Period.
- 11.13. The group on whose behalf the Foundation acts in these proceedings is therefore limited, on the one hand, to buyers and lessees of Rigged diesels that were sold/leased and/or registered in the Netherlands after the Euro 5 standard came into effect (1 September 2009) and, on the other hand (as a result of the admissibility requirement set out in Article 3:305a paragraph 3(b) of the Dutch Civil Code that the claims must have a sufficient connection with the legal sphere of the Netherlands) is limited to the territory of the Netherlands by choosing to act only for (former) owners and (former) lessees of Rigged diesels that were sold, leased and/or registered in the Netherlands during the Relevant Period. Of course, it is possible that such Rigged diesels were exported abroad after the purchase or lease, but this will only apply to a minority of them and is insufficient to break the link between the Foundation's claims and the Dutch legal sphere, which is a relevant factor for its admissibility.
- 11.14. The Foundation is requesting a declaratory judgment that Stellantis et al and Bosch acted unlawfully towards the Aggrieved Parties and as such are liable for the damage suffered by them. The Foundation also claims damages on behalf of the Aggrieved Parties.

Official dealers are not involved in these proceedings

- 11.15. The Foundation is aware that in some comparable proceedings against other car manufacturers, claims have also been lodged against the official dealers of the car brand in question in the Netherlands. In these proceedings, other claimant foundations are primarily seeking to have the contracts of sale concluded by the dealers annulled on the grounds of non-conformity. Although the Foundation agrees that the Peugeot, Citroën and Opel vehicles sold by the dealers were indeed non-compliant as a result of the presence of the defeat devices, the Foundation has deliberately chosen not to involve the dealers in these proceedings. Not only does this involve a large number of dealers, which does not benefit the clarity of the procedure or the efficient and effective handling of the collective claims of the Aggrieved Parties, but the Foundation also believes that by primarily targeting the dealers, the true perpetrators remain out of range.
- 11.16. The Foundation does not consider it plausible, at least it has no indications that the dealers of Peugeot, Citroën and Opel were actively involved in the unlawful acts of Stellantis et al and Bosch, in the sense that they were aware of the defects. It is possible that they became aware of this in due course through media reports, but even if that were the case, the Foundation considers it wrong to place the consequences of the liability for the diesel fraud predominantly on them by seeking to rescind the purchase agreements primarily on the grounds of non-conformity. In the opinion of the Foundation, this would lead to chaos on the market because such a judgment would not only have consequences for the Rigged diesels sold by the dealers, but potentially for all subsequent purchase
or lease agreements – including between private individuals – that have come to pass in relation to the Rigged diesels. These undesirable effects, together with the advantages for efficient legislation of omitting the dealers and the wish of the Foundation to hold the actual perpetrators to account for the extensive damage caused by them, led the Foundation to decide that Peugeot, Citroën and Opel dealers should not be involved in these proceedings.

Claims settlement

- 11.17. As discussed in Section 10, the damages suffered by the Aggrieved Parties consist of the amount they overpaid for the Rigged diesels (the *overcharge*). The Foundation will specify the number of Rigged diesels and the exact overcharge at a later stage in the proceedings. However, in view of the seriousness of the defect, it is to be expected that the overcharge per vehicle will run into thousands of euros in any case. SEC estimates that the amount of Rigged Diesels in the Relevant Period in the Netherlands is 94,000 for Opel and around 300.000 for Peugeot and Citroën. On that basis, the Foundation expects the total damage to run into the hundreds of millions of euros.
- 11.18. The amount of damage per Rigged diesel will be divided pro rata among the number of users of the vehicle concerned, depending on the nature of their use. After all, every owner of a Rigged diesel has paid too much whether it involves the purchase price or lease instalments. However, this damage has gradually been passed down through the chain and at the moment rests primarily with the current owner of the vehicle. The basic assumption is that previous owners may have bought the Rigged diesel for too much, but also sold it for too much. In the case of several owners, the amount to be determined for each type of Rigged diesel involved will therefore have to be apportioned in accordance with an allocation formula to be determined, although the current owner will have to receive the largest percentage share of the damage. In the case of leased vehicles, the loss is apportioned between the lessor and the lessee(s) of that vehicle. If necessary, this will be explained at a later stage in the procedure.
- 11.19. What is important in this calculation or settlement of damages is (as will also be explained below when discussing the admissibility requirements pursuant to Section 3:305a of the Dutch Civil Code) that the choice to always take each and every Rigged diesel as a starting point when calculating the damages means that an assessment of the personal circumstances of each and every Aggrieved Party harmed is not necessary when determining the extent of the damage. Nor is that necessary for the judgment that Stellantis et al. and Bosch acted unlawfully towards the Aggrieved Parties by developing defeat devices, producing Rigged diesels and/or importing them into the Netherlands and misleading the market. The claims therefore lend themselves without further ado to joint processing. Another advantage of the choice to calculate the damage on the basis of the Rigged diesels that were sold, leased and/or registered in the Netherlands is that there can be no doubt about the close relationship with the Dutch legal sphere (Article 305a(3)(b) DCC) or about the jurisdiction of the Dutch court.

Joint claims (Section 1018c subsection 1 under c and subsection 5 DCCP in conjunction with Section 3:305a subsection 1 DCC)

11.20. An important question in class actions is whether the claims brought are suitable for joint processing. This is the case here. The Supreme Court already ruled in 2010 that in the context of a claim under Article 3:305a of the Dutch Civil Code (old) the interests to be protected are similar if *"they lend* themselves to bundling, so as to promote efficient and effective legal protection for the benefit of the stakeholders."¹¹⁴

- 11.21. It is undeniable that in this case similar interests are at stake. After all, all Aggrieved Parties own or have owned a Rigged diesel which contains a manipulation device as a result of which they have suffered damage.
- 11.22. In addition, the Foundation is standing up for a group of victims who will almost all live in the Netherlands. This is not only relevant for the required link with the Dutch legal sphere (see below in the discussion of Article 3:305a paragraph 3 of the Dutch Civil Code), but also for the assessment of the similarity of interests. Although Stellantis et al has marketed its Rigged diesels worldwide and every citizen and entity obviously has an interest in the sale of a vehicle that complies with the laws and regulations, different emission standards apply worldwide and the intensity with which the environment is exposed to emitted harmful NOx also varies from area to area. This may have relevance for the (calculation of the) damage (the overcharge) they have suffered as a result of the wrongful acts of the defendants and therefore for the similarity of their interest in these proceedings. The Foundation does not rule out the possibility that someone in Poland, where NOx pollution is less significant and the environment and public health are less on the political agenda, will find the fact that a Rigged diesel is much more polluting than permitted and advertised less concerning than someone in the Netherlands, where these topics are more in the social spotlight.
- 11.23. In the opinion of the Foundation, the interests of consumers or professional parties who have purchased or leased their vehicles in the Netherlands, or at least registered them and who will therefore all live in the Netherlands or close by, are sufficiently similar to lend themselves to bundling. The Foundation is supported in this by the recent decision in the Shell case, in which the court considered¹¹⁵:

"The court is of the opinion that the primary interest served by the collective actions of current and future generations of the entire world population does not lend itself to bundling. While the entire world population would benefit from combating dangerous climate change, there are major differences in when and how the world's population will be affected in one place or another by climate change due to CO2 emissions. This primary interest therefore does not meet the requirement of 'similar interest' of Section 3:305a of the Dutch Civil Code.

The subsidiary interests of the current and future generation of Dutch residents and (for the Wadden Association) (the inhabitants of) the Wadden area partly located in the Netherlands lends itself to bundling, even though there are differences within the Netherlands and the Wadden area as regards the point in time, the degree and the intensity to which inhabitants will be affected by climate change due to CO2 emissions. These differences are much smaller and of a different nature than the mutual differences when it comes to the entire world population and do not stand in the way of bundling in a collective action."

11.24. The nature of the claims brought does not affect the suitability of the Aggrieved Parties' claims for bundling, as will be explained below.

Declaratory judgment

11.25. On behalf of the Aggrieved Parties, the Foundation firstly requests a declaratory judgment that Stellantis et al. and Bosch have acted unlawfully towards them by developing or using hardware and software, or at least implementing defeat devices, at least for non-compliant Rigged diesel

¹¹⁴ Supreme Court, 26 February 2010, ECLI:NL:HR:2010:BK5756, legal ground 4.2 (Exhibit 85).

¹¹⁵ Court of The Hague, 26 May 2021, ECLI:NL:RBDHA:2021:5337, legal ground 4.2.3. and 4.2.4 (**Exhibit 86**).

certificates. and made misleading statements about them. This type of claim was also already possible under the WCAM (art. 3:305a BW old); there is no doubt that the interests of the victims in this respect can be combined. After all, this decree requires a judgment that Stellantis et al (whether or not in collaboration with Bosch) acted unlawfully due to violation of the emission standards applicable during the Relevant Period. This does not require an individual assessment of the personal circumstances of each of the Aggrieved Parties on whose behalf the claim is made, which makes the claim eminently suitable for bundling.

11.26. In a similar matter about claims filed by the claims foundation Stichting Volkswagen Car Claim in 2017 under the WCAM against (among others) Volkswagen, the Amsterdam District Court in an interlocutory judgment dated 20 November 2019 regarding the implementation of defeat devices in cars produced by that manufacturer¹¹⁶ ruled that the declaratory judgment that Volkswagen has acted unlawfully lends itself to joint treatment and dismissed Volkswagen's appeal that, in view of the differences between the interests of the car owners, this claim did not lead to efficient and effective legal protection (legal ground 6.34):

"The District Court is of the opinion that the starting point is that Volkswagen et al. intentionally applied a Manipulation Device in all the Vehicles Concerned put on the market in the Netherlands. This means that the interests of all the Car Owners who claim to have been disadvantaged by this are similar and can therefore be combined. The alleged differences do not detract from this because they have in no way led to the buyer's knowledge of the Defeat Device."¹¹⁷

11.27. In the present proceedings, too, there may be differences between the interests of the Aggrieved Parties, although the Foundation believes that these - where they exist - are very limited, but this does not preclude a joint assessment of the question of whether the defendants acted unlawfully by marketing Rigged diesels equipped with manipulation devices, or at least by performing acts conducive to that purpose.

Claim for damages

11.28. The Foundation is also claiming collective damages. This claim, too, in light of the new rules and safeguards provided by the WAMCA, must be considered to promote the effective and efficient legal protection of the Aggrieved Parties. The Minister notes in the explanatory memorandum to the WAMCA:

"Finally, the procedure itself has been designed in such a way that the fact that certain questions involved in a mass claim can only be answered individually does not have to stand in the way of an efficient and effective settlement. (...). The proposed procedure can be used for the settlement of all types of damage. Nor is the procedure limited to certain potential claimants.

[...]

The proposed procedure does not distinguish between the causes of the damage. (...) If the court has ruled that the other party has acted unlawfully, the mass damage caused thereby can be settled in the proposed proceedings."¹¹⁸

11.29. When introducing the WAMCA, the Minister explicitly acknowledged the objection (raised in the past) to a collective action for damages, namely that causation and damages can only be determined individually, by incorporating various procedural safeguards that promote the efficient and effective settlement of a collective compensation claim. Those safeguards include the centralization of

¹¹⁶ District Court of Amsterdam 20 November 2019, ECLI:NL:RBAMS:2019:8741, legal ground 6.11 (Exhibit 87).

¹¹⁷ Ibid, legal ground 6.34

¹¹⁸ Parliamentary papers II 2016-2017, 34 608, no. 3 (Explanatory Memorandum), p. 7 (Exhibit 88).

collective actions for damages before the Amsterdam District Court, the additional requirements imposed on the professionalism of the representative, and the appointment of an Exclusive Representative to create clarity with the party(ies) addressed about the party with whom a settlement may be negotiated and the different powers of judges to encourage parties to reach a settlement.¹¹⁹

- 11.30. The foregoing makes it clear that the legislator has structured the procedure under the WAMCA in such a way that possible individual factors that may play a role in determining the extent of the damage in the event of unlawful acts do not have to stand in the way of a collective action for damages, because the built-in procedural safeguards must be deemed to promote the efficient and effective settlement of mass claims. This means that, unlike in the past, the starting point must now be that collective damages lend themselves to aggregation, and defendants cannot successfully defend against this merely by pointing out the individual factors (such as causation, own fault, etc.) that may be relevant to the assessment of damages in general.
- 11.31. As already discussed, the Foundation has also opted to use the list (new) price of each model of a Rigged diesel as the basis for its claim for damages. Damages are thus in a sense abstracted from the individual circumstances of the Aggrieved Parties. This promotes the effective and efficient legal protection of the Aggrieved Parties because it removes the discussion of the extent of each Aggrieved Party's loss and shifts it to how the total loss should be calculated. The manner in which that damage is to be apportioned may, at the most, be relevant in the context of assessing the reasonableness of a settlement to be reached that will have to be assessed at a later stage but it cannot , *a priori,* play a role in the assessment of the Foundation's admissibility.
- 11.32. The conclusion from the foregoing is that all claims filed can be bundled, on the one hand, and that they promote effective and efficient legal protection of the Aggrieved Parties, on the other hand, and are therefore suitable for joint processing. This requirement is therefore fulfilled.

Admissibility of the Foundation (Section 1018c (1) under d of the Dutch Code of Civil Procedure in conjunction with Section 3:305a of the Dutch Civil Code)

- 11.33. The Foundation has submitted claims based on Article 3:305a of the Dutch Civil Code. With the introduction of the WAMCA on 1 January 2020, the legislator has also made it possible to bring a collective action for damages. In order to prevent such a claim from being used wrongly or frivolously and to promote the effective and efficient legal protection of the Aggrieved Parties, the legislator has complied with the admissibility requirements laid down in Section 3:305a of the Dutch Civil Code in Section 3:305a(1) to (3) DCC (new) supplemented with a number of further admissibility requirements that a collective representative must meet. These new requirements partly concern a legal embedding of (parts of) the Claim Code that was introduced in 2011 and revised in 2019.¹²⁰ It serves the promotion of quality and transparency of interest groups through self-regulation.
- 11.34. The Foundation will explain below that it meets all of the requirements for admissibility under the WAMCA. Subsequently, the Foundation will briefly discuss the principles of the Claims Code which, although not legally enshrined, it has nonetheless, in its desire to be as transparent as possible, conformed to as far as possible.

Similar interests, articles of association and safeguarding of interests (Article 3:305a paragraph 1 of the Dutch Civil Code)

¹¹⁹ *Ibid*.

¹²⁰ Claim code 2019 (**Exhibit 89**).

- 11.35. Article 3:305a paragraph 1 of the Dutch Civil Code prescribes that a Foundation may institute legal proceedings to protect the similar interests of other persons, in so far as it promotes these interests pursuant to its Articles of Association and these interests are sufficiently safeguarded.
- 11.36. It has already been explained above that the interests of the Aggrieved Parties in these proceedings are similar and promote efficient and effective legal protection of these interests, and that the Foundation promotes these interests according to its Articles of Association. This requirement is therefore fulfilled.
- 11.37. However, the Foundation wishes to point out that it limits its activities in these proceedings to the territory of the Netherlands as much as possible, but that it does not necessarily intend to continue to do so. After all, it intends to do more to protect the interests of victims of vehicle emission manipulation (see its mission statement in Article 3.3 of its Articles of Association), and it is certainly conceivable that this will take on a more international character in the future. As mentioned in the introduction, these proceedings concern the third proceedings instituted by the Foundation in the Netherlands against a large car manufacturer. It also works closely with the English law firm Hagens Berman UK LLP in its group litigation against (among others) Mercedes in England and Wales (see also para. 11.100 below). Although the Foundation was initially set up to hold the perpetrators of the diesel fraud to account, it has since broadened its field of activity and is therefore not an 'ad hoc organisation' (typed by the Minister in the explanatory memorandum to the WAMCA) that has been established specifically for conducting one set of proceedings, or at least it does not intend to be.¹²¹ Nor is it a commercial organisation which makes litigation of this kind its business model. As a nonprofit foundation, it operates independently from its financiers, in the sense that control over strategy and litigation rests entirely with the Foundation. The interests of the people it represents are therefore expressly paramount, although it will of course have to take into account the remuneration requested by the financier for the risk it is taking.
- 11.38. The last criterion, namely that the Foundation must offer sufficient guarantees for adequate representation of interests, has been further elaborated in the new Article 3:305a (2) of the Dutch Civil Code with the introduction of the WAMCA. Briefly, this paragraph stipulates that the requirement of adequate safeguards is met if the representative entity is sufficiently representative. The Foundation addresses the relevant requirements below.

The Foundation is sufficiently representative (Article 3:305a paragraph 2 preamble DCC)

- 11.39. With the first sentence of this paragraph, the legislator intended to give the court the opportunity to test whether an interest group is sufficiently representative, in view of its members and the scope of the interests represented. It must be clear in advance that the representative entity represents a sufficiently large proportion of the group of victims. What constitutes a sufficient proportion may vary from case to case, but in any event must be assessed in relation to the total number of aggrieved parties represented. The explanatory memorandum expressly mentions the number of victims who have actively registered for the claim submitted by the Foundation as the way in which this criterion can be tested.¹²²
- 11.40. The scrutiny referred to in the previous paragraph must take place at the time when the admissibility of the Foundation will be assessed by the court *(ex nunc)*.

¹²¹ Incidentally, being an 'ad hoc' organization or commercial organization does not preclude filing a claim pursuant to Section 3:305a of the Dutch Civil Code.

¹²² Parliamentary papers II 2016-2017, 34 608, no. 3 (Explanatory Memorandum), p. 22 (Exhibit 88).

11.41. Although there are of course many more victims worldwide of the diesel scandal caused by Stellantis, the Foundation represents the Aggrieved Parties as defined above. In the opinion of the Foundation, this is the only relevant group because other victims have little or no connection with the Dutch legal system. The Foundation will use its considerable resources to bring the existence of the Foundation to the attention of all Aggrieved Parties and will ensure that it can demonstrate (prior to the hearing at which this admissibility requirement will be discussed) that it has sufficient support from an actual constituency in order to be admissible in these proceedings as a representative of the interests of all Aggrieved Parties.

The Foundation has a supervisory body (Article 3:305a, paragraph 2, sub a of the Dutch Civil Code)

11.42. The Foundation has a Management Board, which now consists of five people, and a supervisory body, comprising three members, in the form of a Supervisory Board. The identity of the directors and supervisory directors and their expertise are discussed below when discussing the requirement of sufficient expertise (Article 3:305a, paragraph 2, sub e of the Dutch Civil Code).

Appropriate mechanisms for the participation of the Aggrieved Parties (Art. 3:305a, paragraph 2, sub b BW)

- 11.43. The explanatory memorandum to the WAMCA states that it is up to the interest organization itself to determine how it wishes to implement this provision but that it is possible for a foundation to give affiliated aggrieved parties the opportunity to express themselves about certain decisions¹²³. The Foundation will show that it has found an appropriate solution for this.
- 11.44. If an interest group is set up in accordance with the Claim Code, it can be assumed that this requirement has been met.¹²⁴ As will be further explained, the Foundation fully complies with the requirements set out in the Claims Code in addition to the statutory requirements, so it should be assumed that the Foundation meets the requirement discussed here.

The Foundation can finance the proceeding (Section 3:305a(2)(c) of the Dutch Civil Code)

- 11.45. The Foundation is obliged to ensure that it has sufficient financial resources to enable it to institute legal proceedings, whereby, moreover, control over the instigation of legal proceedings rests with the Foundation to a sufficient extent.
- 11.46. The explanatory memorandum states on this point that the review to be carried out by the court can only be marginal, but that in the case of external legal financing the court can request the financing agreement in order to see how the influence of the financier on the proceedings has been arranged and whether that arrangement does not stand in the way of careful representation of the interests of the injured parties.¹²⁵
- 11.47. The Foundation is financed by an external financier (Emission Claim Trust BV: 'the financier'). It has concluded a financing agreement with this party. External funding is expressly permitted not only under the WAMCA but also under the Claims Code 2019 (Principle III External Funding). The Claim Code 2019 sets the following conditions for the financing agreement:¹²⁶

¹²³ *Ibid*, p. 23

¹²⁴ *Ibid*, p. 23.

¹²⁵ *Ibid*.

¹²⁶ Claim code 2019, p. 11 (Exhibit 89).

- The Foundation conducts research into the track record and capitalization of the financier (Principle III elaboration 1);
- The agreement is recorded in writing and contains a choice of law for Dutch law and a choice of forum for the Dutch court (Principle III elaboration 2);
- The agreement provides that control over the litigation and settlement strategy rests exclusively with the interest group (Principle III elaboration 3);
- The agreement provides for an arrangement which safeguards the confidentiality of information belonging to the interest group and defines the information to which the external financier has confidential access (Principle III elaboration 5);
- The agreement provides for an arrangement which ensures that the external financier cannot terminate the agreement before a final decision in the first instance has been obtained and that, for the rest, a reasonable period of notice is used which enables the interest group to obtain alternative financing (Principle III - elaboration 6).
- 11.48. Although these conditions (as soft law) do not strictly bind the Foundation, the Foundation declares that it fully complies with all these requirements. It contacted the Financier which is managed by two partners of the American class action firm Hagens Berman Sobol Shapiro LLP, which deals exclusively with class actions in the United States. The choice of Financier was made not only with regard to the significant resources the Financier can make available, which will be more than sufficient to fully litigate the claims against the defendants if necessary, but also because of its access to specific experience with class actions against car manufacturers who have implemented rigged software in their vehicles. In the United States, class actions have already been brought or commenced against Volkswagen, Fiat Chrysler, Daimler and General Motors, among others. The class actions against Volkswagen and Fiat Chrysler have now resulted in settlements that have been declared generally binding. A settlement has been reached with Daimler rand received final approval on 12 July 2021. All these procedures involve Bosch as the manufacturer and supplier of EDC17, which is implemented in the diesel vehicles of all these manufacturers, in addition to the car manufacturer. The directors of the Foundation's Financier have played a pivotal role in all of these proceedings, co-negotiating the settlements in the proceedings against Volkswagen (\$1.6 billion), Fiat Chrysler (\$307.5 million) and (in part) Daimler. Although the settlement with Daimler and Bosch on the implementation of defeat devices in Mercedes vehicles for the American market is still pending final approval, Daimler and Bosch will pay a total amount of approximately USD 700,000,000 to American victims on the basis of the provisionally approved settlement. The Financier therefore offers, in addition to sufficient financial resources, extensive expertise in the field of mass damage claims against car manufacturers, specifically with regard to the dieselgate fraud in which Stellantis was also involved. In its choice of Financier, the Foundation was assisted by its own lawyers (Kennedy Van der Laan). The agreement with the Financier is governed by Dutch law and the Foundation has agreed on an arrangement regarding control over the process strategy, confidentiality and termination of the agreement.
- 11.49. The Foundation has not submitted the financing agreement with this writ of summons (given the confidential information). It appears from the parliamentary debate that the Foundation is explicitly allowed this abstention: "*Incidentally, it is not necessary that the other party also receives sight of the financing agreement*"¹²⁷ and "[*i*]*An inspection for the benefit of another party to the proceedings would*

¹²⁷ Parliamentary papers II 2016-2017, 34 608, no. 3 (Explanatory Memorandum), p. 23 (Exhibit 88).

provide them with insight into the possibilities of continuing the proceedings (the 'war chest'). Such access is not desirable because the party addressed can adjust its litigation strategy accordingly. For example, it could try to approach financiers to stop financing or try to delay the proceedings because it is aware of the defendant's limited financial resources..¹²⁸ The Foundation has agreed with the Financier that it will produce the agreement only pursuant to an order of the court to that effect. If the court does indeed order this, the Foundation requests the court not to bring the agreement to the attention of the other litigants in these proceedings.

The Foundation has a generally accessible website (Article 3:305a, paragraph 2, sub d of the Dutch Civil Code)

- 11.50. The Foundation has a website that can be reached via <u>www.emissionclaim.nl</u> and <u>www.emissionclaim.com</u> (hereinafter referred to as 'the Website'). The various transparency requirements that the website to be operated by the Foundation must meet (as well as the other requirements) have been set to ensure that the interests of the Aggrieved Parties are sufficiently safeguarded. The Website mentions its articles of association (part 1), a detailed governance statement (part 2), the remuneration of the directors and members of the Supervisory Board (part 5), the Foundation's objectives and working methods (part 6), an overview of the state of affairs in ongoing proceedings (section 7 currently the proceedings against Daimler and Bosch, the proceedings against Renault and Bosch and the present proceedings against Stellantis et al and Bosch) and an overview of how Aggrieved Parties can join the Foundation and terminate this connection (section 9).
- 11.51. Section 8 (own contribution) is not applicable because, as a result of the Foundation's decision to attract external funding, no own contribution is required from the Aggrieved Parties. Parts 3 and 4 will be implemented as soon as the first annual accountability report and the first management report, respectively, will be issued.
- 11.52. In addition to these legal requirements, the Foundation also states on its website, in accordance with elaboration 7 of Principle III of the Claims Code, that i) there is external financing ii) the identity and business address of the Financier and iii) an overview of the way in which the external financing takes place, including the agreed percentage that will be paid to the Financier in the event of a settlement.

The Foundation has sufficient experience and expertise (Article 3:305a, paragraph 2, sub e of the Dutch Civil Code)

- 11.53. The last requirement of this paragraph is that the Foundation must be able to demonstrate that it has sufficient experience and expertise, or access thereto, in relation to instituting and conducting legal proceedings. This requirement can be met by demonstrating previous work in that field, by a previous class action or by persons who have this experience serving on the board.¹²⁹
- 11.54. The Foundation has a Management Board and a Supervisory Board. At the time of this writ of summons, the board is composed of Sergei Purewal (Chairman), George Bisnought, Martha Seijas, Pete Lennon and Melanie Ormos. The Supervisory Board currently consists of three Supervisory Board members, Prof. Arno Akkermans (Chairman), Steven Berman and Prof. Astrid Stadler. The Foundation submits as **Exhibit 91** the CVs of the directors and supervisory directors, which it also has listed on the Website. In addition to the directors and members of the Supervisory Board, the

¹²⁸ Parliamentary papers II 2017-2018, 34 608, no. 6 (NV II), p. 11-12 (Exhibit 90).

¹²⁹ Parliamentary papers II 2016-2017, 34 608, no. 3 (Explanatory Memorandum), p. 24 (Exhibit 88).

Foundation has a general manager in the person of Michael Gallagher who is responsible for the day-to-day business, which has become necessary in view of the expanding activities of the Foundation. Mr Gallagher has no voting rights and is not involved in the policy-making of the Foundation.

- 11.55. Mr Berman and Mr. Gallagher are directors of the Financier. Both are partners at the English law firm Hagens Berman UK LLP and Mr Berman is also the managing partner of the US law firm Hagens Berman which, as already mentioned, has conducted several *class actions* against several automakers in the US. As permitted under the Claim Code (principle VII, elaboration 3), the Financier may nominate one member of the Supervisory Board, not being the chairman.
- 11.56. The Claim Code furthermore requires that both bodies have at least one member with sufficient relevant legal expertise and one member with sufficient relevant financial expertise.¹³⁰. This requirement has been met. As far as the board is concerned, these are Martha Seijas (legal expertise) and Pete Lennon (financial expertise). As far as the Supervisory Board is concerned, all three members have considerable legal experience, with Mr Berman, as already mentioned, having been very closely involved in the settlements reached in the United States with various car manufacturers and Bosch. Mr Berman also has sufficient financial expertise to adequately supervise the Management Board and to determine the Foundation's strategy in that area.
- 11.57. In addition to the competence of the board members and members of the Supervisory Board, the Foundation is supported by the extensive and specific experience of its Financier with various mass damage cases against car manufacturers in the US, as explained above (para. 3.56). The Foundation is further assisted by its own lawyers, giving it access to specific expertise on WCAM, WAMCA and liability issues in the Netherlands in general. All in all, the Foundation therefore has access to more than sufficient expertise to adequately represent the interests of the Aggrieved Parties in these proceedings. This requirement of admissibility is therefore also met.

Directors do not have a direct or indirect profit motive (Section 3:305a(3)(a) of the Dutch Civil Code)

11.58. The purpose of this requirement is to prevent directors from having access to the funds of the foundation or association as if they were their own funds. None of the members of the Management Board has such a direct or indirect profit motive.

Sufficiently close connection with the Dutch legal sphere (Article 3:305a(3)(b) of the Dutch Civil Code)

11.59. A sufficient connection within the meaning of this paragraph shall be deemed to exist if (a) the persons on whose behalf the legal action is brought have their habitual residence in the Netherlands, (b) the person against whom the legal action is directed has its registered office in the Netherlands, or (c) the event on which the legal action is based has taken place in the Netherlands. Virtually all the Aggrieved Parties will be resident or established in the Netherlands, while the Rigged Diesels were sold, leased or registered in the Netherlands. The claims brought by the Foundation therefore have a sufficient connection with the Dutch legal sphere with regard to all Defendants to enable a full substantive assessment (see para. 11.12 et seq above).

¹³⁰ *Ibid*, Principle V, elaboration 2 and 3, and Principle VII elaboration 4 and 5, respectively.

The Foundation has made sufficient efforts to conduct amicable discussions (Section 3:305a(3)(c) of the Dutch Civil Code)

- 11.60. This paragraph explicitly states that a period of two weeks after receipt by the defendant, stating the claim, is sufficient. In separate letters dated 4 June 2021, the Foundation held Stellantis, GM, the Importers and Bosch liable for the damage suffered by the Aggrieved Parties and invited them to acknowledge that liability and to enter into negotiations about the damage. The Foundation submits these letters (which were sent to the Defendants by courier, e-mail and/or fax) as **Exhibit 92** and Exhibit 6. The Foundation gave the defendants one month, i.e. two weeks more than the statutory minimum, to accept its invitation to enter into negotiations. However, nothing more has been heard from the defendants except for the (negative) response from Bosch in response to the first proceedings initiated by the Foundation on 30 December 2020 (**Exhibit 93**).
- 11.61. It should be clear that none of the defendants is prepared to enter into amicable negotiations on this matter, so that the Foundation has no other option than to bring this case before the court. This last requirement for admissibility has thus also been met.

Conclusion on the statutory admissibility requirements

11.62. It is clear from the above that the Foundation more than satisfies the statutory admissibility requirements laid down in Article 3:305a (2) and (3) of the Dutch Civil Code. It therefore asks the court to declare its collective claims admissible.

Further (voluntary) compliance with the Claims Code

11.63. As mentioned above, a number of elements of the Claims Code have found a legal basis in the first three paragraphs of article 3:305a of the Dutch Civil Code. For the rest, the Claims Code does not bind the Foundation, but the Foundation has chosen to fully comply with it as far as it applies to it. The Foundation explains below how it complies with the Claims Code.

Principle I - Compliance with and enforcement of the Code

- 11.64. The Foundation has outlined its governance structure on its website www.emissionclaim.nl (elaboration 1).
- 11.65. The Foundation has committed itself in article 6.5. of its articles of association to update its governance structure yearly where needed (elaboration 1) and to explain any deviations from the Claims Code. All information that it places on the website in this regard will remain on the website (elaboration 2). The Foundation submits changes to its governance structure to the Supervisory Board for discussion (Article 6.6. of the Articles of Association and elaboration 3).

Principle II - Representing the collective interests on a non-profit basis

- 11.66. Article 4.3 of the Foundation's Articles of Association prohibits any natural person or legal entity from being able to dispose, in whole or in part, of the assets and income of the Foundation. The articles of association further provide (article 7.1.) that the Foundation is represented by the Management Board or by two directors acting jointly. A two-signature system is thus in place (elaboration 1).
- 11.67. Elaboration 3 of the Code of Claims requires that the articles of association stipulate that any surplus shall be used for the objects of the Foundation as much as possible and shall benefit the participants of the Foundation or an ANBI institution (elaboration 3). Article 17.3 of the Foundation's Articles of Association states that any surplus will be used for the purpose of the Foundation as far as possible.

Principle III - External Financing

- 11.68. The Foundation has secured a solid external financier (cf para. 11.47. et seq). It has conducted research into the capitalisation, track record and reputation of the Financier (elaboration 1). These were all found to be more than adequate.
- 11.69. A written financing agreement has been concluded between the financier and the Foundation. The Foundation has stipulated that it has the power to notify the court of the agreement if so ordered, on the understanding that the Foundation's counterparties will not be allowed to inspect it as far as possible (elaboration 8).
- 11.70. The Foundation has also had its lawyers (Kennedy Van der Laan NV) record in the engagement letter that they act exclusively for and on behalf of the Foundation and its constituents under the articles of association and that they will not accept any engagement(s) in this matter from the Financier and the legal entities directly or indirectly associated with the Financier (elaboration 4).
- 11.71. Finally, the Foundation has stated on its website (i) that there is external financing (ii) what the identity and place of residence of the financier is and (iii) what the system of the fee(s) and services agreed upon with the external financier is in broad terms, including the percentage that the Financier is entitled to in the event of a settlement (elaboration 7)

Principle IV - Independence and Avoidance of Conflicts of Interest

11.72. The Foundation has ensured in Article 5.2. of its Articles of Association that the directors are independent of each other (elaboration 1). They currently hold no conflicting ancillary positions. Any future ancillary positions will be listed on the Foundation's website (elaboration 2). Furthermore, pursuant to article 6.3 of the articles of association, the board is not authorized to enter into agreements with parties in which they are directly or indirectly involved (elaboration 3).

Principle V - the composition, duties and working methods of the Management Board

- 11.73. As mentioned, the board of the Foundation at the time of the issuance of this summons consists of the persons mentioned under paragraph 11.54. (elaboration 1).
- 11.74. As evidenced by the curricula vitae of the directors, the Management Board has the specific expertise required to represent the interests set out in the articles of association, in particular with regard to experience with (the handling of) class actions, and at least one member of the Management Board has the specific legal expertise required for this purpose and one member has the financial expertise required (elaborations 2, 3 and 4). They represent the Board jointly (Article 7.1 of the Articles of Association and elaboration 5).
- 11.75. In accordance with Article 15.4 of the Articles of Association, the Management Board submits a balance sheet and statement of income and expenditure and the budget to the Supervisory Board for approval (elaboration 6).
- 11.76. Finally, the Management Board may decide, pursuant to Article 8.11., to subject to its approval any decision it deems important. Article 8.12. of the Articles of Association provides that the Foundation will involve the Aggrieved Parties in any settlement agreement that may be reached in respect of claims (elaboration 7).
- 11.77. Finally, the Board of the Foundation maintains a website (www.emissionclaim.nl) on which all the elements shown in elaboration 8 of the Claim Code are listed (cf par 11.50 et seq). In addition to the legal requirements of the website, the Website also states:

- The curricula vitae of the members of the Management Board and Supervisory Board (elaboration 8 vii)
- As part of the registration information: a plan of action which will enable the potential participant to assess whether the nature and working method of the Foundation are in line with his/her interests
- An overview of the settlement agreements concluded by the interest group. In this regard, the Foundation has referred to the settlement agreements entered into in the United States through the actions of the Financier. Although strictly speaking this agreement was not reached by the Foundation, as the only party in these proceedings it has access to the expertise of those who were responsible for it.

Principle VI - Remuneration of Directors

11.78. The directors are paid a reasonable fee of EUR 250 per hour. This remuneration is determined by the Supervisory Board on the basis of Article 9.1 of the Articles of Association (elaboration 1). Pursuant to Article 9.2 of the Articles of Association, the directors only receive remuneration from the Foundation (elaboration 2). The remuneration agreed with the directors is included in the Foundation's annual report pursuant to Article 9.3 of the Articles of Association (elaboration 3). As already mentioned, the remuneration of the directors is stated on the website (elaboration 4).

Principle VII - The Supervisory Board

- 11.79. At the time of this summons being issued, the Supervisory Board consists of the aforementioned three persons (Prof. Arno Akkermans, Prof. Astrid Stadler and Steve Berman). The Foundation thus complies with Article 10.1 of the Articles of Association and the introduction to Principle VII. Although the Foundation does not rule out the possibility that the composition of the Supervisory Board will also change, the minimum occupancy of three people will be maintained.
- 11.80. Pursuant to Article 12.1 of its articles of association, the Supervisory Board meets at least once a year (elaboration 1). The Foundation has included in Article 10.3 of its Articles of Association that the members of the Supervisory Board can operate independently and critically with regard to each other and the Board and with regard to the interests represented by the Foundation. This is the case with the aforementioned complement (elaboration 2).
- 11.81. The Financier of the Foundation has nominated one member of the Supervisory Board (elaboration 3). This is Steve Berman. The Foundation notes that he has an indirect personal interest in any settlement to be reached by the Foundation. To this extent, the Foundation deviates from the Claims Code. It has made the following announcement about this on its website:

"Steve is the financier's representative at the Foundation. He is waiving his hourly rate to further the mission."

- 11.82. It follows from the CVs of the supervisory directors that they have sufficient legal and financial expertise to adequately represent the interests of the victims (elaborations 4 and 5). Pursuant to Articles 11.2 and 11.3 of the Articles of Association, the Management Board provides the Supervisory Board with the documentation required for the performance of its duties and allows it to inspect all of the foundation's books, records and data carriers (elaboration 6).
- 11.83. Pursuant to Article 15.5, the Supervisory Board is entitled to have the balance sheet and statement of income and expenditure examined by a chartered accountant appointed by the Supervisory Board,

who will report to the Supervisory Board. The report will be brought to the attention of the Management Board. (elaboration 7).

- 11.84. Pursuant to Article 11.6 of the Articles of Association, the Supervisory Board draws up a document every year in which it renders account in general terms of the supervision it has conducted. This overview will be mentioned on the website (elaboration 8).
- 11.85. Pursuant to Article 13.1 of the Articles of Association, the remuneration of the Supervisory Board is determined in the joint meeting of the Management Board and Supervisory Board. The fees set are not excessive and are published on the website. Pursuant to Article 13.2 of the Articles of Association, the members of the Supervisory Board do not receive any other remuneration. Thus, elaboration 9 has also been met.

Request for designation as Exclusive Representative (ex art. 1018e of the Dutch Civil Code)

11.86. The Foundation requests that the Court designate it as an Exclusive Representative Entity and will discuss the relevant criteria below.

Preliminary remark concerning finality

- 11.87. The legislator hesitated for a long time about the introduction of the possibility of also filing a claim for damages within the framework of collective actions. The fear was (among others) that this could lead to "American situations" in which *claim vehicles* could subsequently claim enormous damages in all conceivable situations. In addition, the introduction of such a mass claim regime (based on the American model) could also lead to a distortion of the position of the Netherlands (and its companies) on the international stage, particularly within the EU. After all, other countries do not (yet) have comparable collective actions, but they may, in principle, be affected by actions instituted in the Netherlands.
- 11.88. This fear was eventually addressed by a system of safeguards that the Foundation has already discussed in detail above. What has not yet been addressed is the rationale behind the enactment of the WAMCA that must be considered in determining who is ultimately best positioned to act as the Aggrieved Parties' representative entity.
- 11.89. The expansion of the Dutch class action regime by the WAMCA aims to resolve many similar claims at once. This will not only serve the economy as such by bringing the claim on behalf of all the Aggrieved Parties and paying for it, but will also ensure that the judiciary is not unnecessarily burdened. The latter follows, for example, from the Dexia affair which led to a veritable tidal wave of proceedings in the Netherlands. The basic premise of the WAMCA, therefore, is that one claimant (or a group of claimants) will combine all relevant claims to present the problem to the court at one time. This possibility has existed for some time in competition law, where civil actions for damages form the final link in the chain of public fines in which, for example, the members of a cartel are fined.
- 11.90. The difference with these so-called follow-on procedures, however, is that the WAMCA is not primarily geared to conduct legal proceedings on all legal points of contention as to the merits of the claims. Instead, the law assumes that the parties will first attempt to reach a settlement. Even if this fails, later in the process the idea of an efficient solution conceived jointly by the two parties (who after all can both submit a proposal for the collective settlement of the damage) returns.
- 11.91. In the end, it is all about finality. In short, all points of contention must be addressed together so that the underlying problem is solved in one go. However, this can only be achieved if there are realistic

and feasible claims on the table, directed against all parties involved, which can lead to a collective settlement. The focus will have to be primarily on damages, because other claims, such as the annulment or dissolution of individual contracts (like purchase or lease), will lead to new complications which cannot be resolved collectively. To mention a few questions that are relevant to other ongoing collective actions: is it possible to request the annulment or termination of all agreements, also later in the chain (second hand market)? How to deal with the practicalities, i.e. the return of the vehicles involved? How can this damage ultimately be recovered from Stellantis, the party ultimately responsible, or from the other party/parties to this problem (Bosch)? And what procedural complications could this lead to with potentially years of proceedings with mutual indemnities?

11.92. Apart from these questions concerning the practical settlement of the class actions, the interests of the Defendants and other parties involved should also be considered. After all, finality also means that one procedure is enough to solve the problem for the entire market. This is also in the interest of the defendants, who can thus draw a line under the deception of the market (caused by them). Finally, when weighing up interests, broader aspects must also be taken into account, such as the shareholders of the parties, the need to be able to continue - with a literal and figurative clean slate - and to provide the market with vehicles that (also) comply with the legal emission standards.

The size of the group of persons on whose behalf the claimant acts (Article 1018e paragraph 1 sub a DCCP)

- 11.93. The Foundation is acting in these proceedings on behalf of all persons or entities who owned or were lessees of a Rigged diesel during the Relevant Period. As explained above, this choice ensures that the Foundation's claims have a link to the Dutch legal environment, either because of the domicile or place of establishment of the Aggrieved Parties, or because of the registration of the relevant Rigged diesel.
- 11.94. As explained above, the choice to limit the group of Aggrieved Parties in this way was made, among other things, because of the required similarity of interests and the link with the Dutch legal sphere. However, this limitation is also prompted by IPR problems. After all, questions of jurisdiction and applicable law are not relevant for this group of Aggrieved Parties. The vast majority of them will be living in the Netherlands and will have purchased or leased the Rigged diesel in the Netherlands. On the basis of Article 7, paragraph 2 of the revised Brussels I Regulation, this creates¹³¹ (in this case: *Erfolgsort*) jurisdiction for the Dutch court with regard to the German defendant Bosch and the American defendant GM, while for Stellantis et al this already arises from their place of residence (art. 2 DCCP). Dutch law will always apply to the claims; for events after 11 January 2009 this follows from the Rome II Regulation, which stipulates that the law of the country where the damage occurs is applicable.¹³² In all cases, this is the Netherlands, because that is where the Rigged Diesels were put on the market.
- 11.95. By limiting its claims to claims from mainly victims who have suffered damage in the Netherlands as a result of the wrongful acts of Stellantis et al and Bosch, they not only have a "*close connection with the Dutch legal sphere*", but they also address the most responsible parties. The Foundation's

 ¹³¹ Regulation (EC) No 1215/2012 of the European Parliament of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters ("Brussels I Regulation").
¹³² Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law

applicable to non-contractual obligations ("**Rome II Regulation**"), art. 4 paragraph 1: "Unless otherwise provided in this Regulation, the law applicable to an unlawful act shall be the law of the country in which the damage occurs, irrespective of the country in which the event giving rise to the damage occurred and irrespective of the countries in which the indirect effects of that event occurred."

claims also take into account the interests of other stakeholders in this dispute. Finally, they address the entire problem that arises on the Dutch market while minimising distortion of the Dutch market. In the Foundation's opinion, these claims against these defendants protect the interests of the Aggrieved Parties in the most effective and efficient manner.

The size of the financial interest represented (Article 1018e paragraph 1 sub b DCCP)

11.96. The size of the represented financial interest cannot be accurately estimated at this time. The Foundation will further specify the number of Rigged diesels that will serve as the basis for the calculation of the damage at a later stage of these proceedings. The damage must then be determined per vehicle. But even if only a few thousand euros per vehicle were assumed, this involves a financial interest of hundreds of millions of euros.

Other activities performed by the claimant on behalf of those for whom he acts (Section 1018e subsection 1 paragraph c DCCP)

11.97. The explanatory memorandum explicitly mentions as an example that the representative entity acts as a mouthpiece for the victims. This is exactly what the Foundation intends to do. It aims to represent the interests of the Aggrieved Parties not only in court but also outside. The Foundation will explicitly involve itself in the public debate. To this end, it is considering appointing a committee to deal with the press and the public debate on the diesel scandal affecting the Aggrieved Parties.

Previous activities performed by the Foundation or class actions instituted (Section 1018e (1) sub d DCCP)

- 11.98. Although the Foundation was only recently established, it has since brought two other class actions against car manufacturers for their role in the Diesel Fraud. It concerns Daimler and Renault, with Bosch also each time being summonsed.
- 11.99. The Foundation also has access to the knowledge and expertise of the aforementioned American law firm which has extensive expertise in the settlement of American *class actions* (which process inspired the WAMCA), in particular against car manufacturers and Bosch for the fraud committed to which these proceedings also relate. As mentioned above, this office has played a central role in <u>all</u> proceedings and settlements that have been conducted in the United States to date between car manufacturers and victims in relation to the Diesel scandal. This means that a party closely involved with the Foundation has already done what the WAMCA intends; namely, has sat down with the liable parties to negotiate a settlement that solves the problem for the entire market. This shows not only that the argumentation and evidence that will also be submitted in these proceedings have led to a concrete result, but also that the Foundation can, through this access, come to the table more quickly now that in any event Bosch in the form of its head office has been obviously involved in the settlement negotiations in the US.
- 11.100. In addition, as mentioned, in England a legal entity affiliated with the Foundation has started a socalled *group litigation* against - among others - Daimler and Bosch. In accordance with the procedural rules applicable there, a '*Letter before Action*' was prepared for the English court, setting out the relevant facts and claims and giving the English defendants a reasonable period of time to respond.
- 11.101. In the opinion of the Foundation, its previous experience, its exclusive access to highly relevant expertise and its international contacts make it ideally suited to try to reach a settlement with Stellantis and Bosch for the Dutch territory. In addition, supplementary to research already carried out by several independent organisations, the Foundation has access to comparable *own* research (and

the expertise required for this) that has already been carried out in various proceedings in the US into the operation of rigged diesels from various brands.

Conclusion

11.102. Based on the foregoing, the Foundation requests that the Court designate it as Exclusive Representative Entity. It reserves the right to supplement in due course its statements on this point and on its admissibility.

12. KNOWN DEFENCES

- 12.1. As already mentioned (paragraph 11.60), none of the defendants responded to the liability statement of 4 June 2021 (Exhibits 6 and 92). On the part of Bosch, the Foundation only received the response (through its lawyer) dated 22 December 2020 following the first procedure in which it rejected any responsibility (Exhibit 93).
- 12.2. The Foundation is therefore not aware of any (other) defences of the defendants.

Part IV. OTHER

13. JURISDICTION OF THE AMSTERDAM COURT AND APPLICABLE LAW

- 13.1. In addition to the explanations in para. 11.94 above, the Foundation also notes the following with regard to jurisdiction:
 - Pursuant to Article 2 DCCP, the Court is authorized to hear claims against Stellantis and its Importers, all of which are domiciled in the Netherlands.
 - Pursuant to Article 7 paragraph 2 of the (recast) Brussels I Regulation¹³³ the Court has jurisdiction to hear claims against GM and Bosch. After all, it concerns damage suffered by the Aggrieved Parties in the Netherlands (as *Erfolgsort*) because they purchased or registered the Rigged Diesels in the Netherlands.
 - Pursuant to Section 1018d(1) of the Dutch Code of Civil Procedure, the District Court has jurisdiction (also in relative terms) to adjudicate this specific dispute.
- 13.2. With regard to the applicable law, the Foundation also notes:
 - that the wrongful act of (the predecessors of) Stellantis or Bosch on the basis of Article 4 paragraph 1 of the Rome II Regulation¹³⁴ must be assessed under Dutch law; and
 - that Dutch law also applies to the unlawful act of the Importers (which took place entirely in the Netherlands).

14. EVIDENCE

- 14.1. In support of its assertions, the Foundation refers to Exhibits 1 to 93 mentioned in this writ of summons, which will be submitted at the time of application (by deed).
- 14.2. Without being obliged to assume any burden of proof, it also offers to further prove its statements by all legal means, including by hearing witnesses or experts who were involved in, or who can otherwise explain about, the diesel fraud that Stellantis et al Bosch committed. The Foundation will make a concrete offer of proof to this effect at a later stage in these proceedings.

¹³³ Regulation (EU) No 1215/2012 of the European Parliament and of the Council of the European Union on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.

¹³⁴ Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations.

FOR THESE REASONS:

May it please the court to deliver a judgment, as far as possible provisionally enforceable:

Request for appointment of Exclusive Representative Entity

1. To the extent that the WAMCA applies to the present claims; to designate the Foundation as an Exclusive Representative within the meaning of Article 1018e paragraph 1 DCCP;

Declaratory decisions

- 2. Declare that each of the Defendants has acted unlawfully towards the Aggrieved Parties;
- 3. Declare that the Defendants are jointly and severally liable for the damage suffered by the Aggrieved Parties as a result of their wrongful acts and are obliged to compensate that damage;

Application for an order for damages and reimbursement of legal costs

- 4. Defendants to be jointly and severally ordered to pay compensation for the damage suffered by the Aggrieved Parties;
- 5. Order the defendants jointly and severally to pay the costs of these proceedings, including the subsequent costs, at least insofar as the WAMCA applies and the Court makes a decision pursuant to Article 1018i DCCP the reasonable and proportionate costs to be determined by the Court that the Foundation will incur in connection with the initiation of these proceedings as referred to in Article 1018l paragraph 2 DCCP, and to increase all these costs with the statutory interest from the date of the decision of the judgment to be rendered in these proceedings until the date of full payment.

The costs for me, the bailiff, are \in 83.38

This case is being handled by Messrs C. Jeloschek, M.R.S Bacon and E. Jagt van Kennedy Van der Laan, PO Box 58188 in (1040 HD) Amsterdam, 020-5506843 / <u>christoph.jeloschek@kvdl.com</u>

EXHIBIT OVERVIEW

Exhibit 1.	S. Laville, 'Air pollution a cause in girl's death, coroner rules in landmark case', The	
	<i>Guardian</i> 16 December 2020	
Exhibit 2.	Annual Report Stellantis 2020	
Exhibit 3.	Annual Report PSA 2020	
Exhibit 4.	Annual turnover FCA Group 2020	
Exhibit 5.	Articles of association Peugeot Nederland NV, Citroën Nederland BV and Opel	
Nederland BV		
Exhibit 6.	General Motors demand letter dated 4 June 2021	
Exhibit 7.	Excerpt Robert Bosch GmbH Commercial Register Ambtsgericht Stuttgart dated 14	
	December 2020	
Exhibit 8.	Articles of Association Emission Claim Foundation dated 11 December 2020	
Exhibit 9.	US Department of Energy, Just the Basics – Diesel Engine, August 2003	
Exhibit 10.	WHO, IARC - Diesel Engine Exhaust Carcinogenic, Press Release No. 213 dated 12 June 2012	
Exhibit 11.	S. van Mersbergen, 'Coronavirus appears to strike much harder in areas with intensive livestock farming', <i>Het Parool</i> 30 April 2020	
Exhibit 12.	European Environment Agency, Air quality in Europe - 2020 report, ISSN 1977-8449, September 2020	
Exhibit 13.	TNO, 'Fact sheet on emissions and deposition of nitrogen in the Netherlands', October 2019	
Exhibit 14.	R. Oldenkamp et al, 'Valuing the human health damage caused by the fraud of	
	Volkswagen', <i>Elsevier</i> vol. 212, p. 121-127	
Exhibit 15.	P.C. Guillaume et al, 'Public health impacts of excess NOx emissions from	
	Volkswagen diesel passenger vehicles in Germany', <i>Environmental Research Letters</i> 12 (2017) 034014 dated 3 March 2016	
Exhibit 16.	J.E. Jonson, J. Borken-Kleefeld, D. Simpson, A. Nyiri, M. Posch and C. Heyes 'Impact	
	of excess NOx emissions from diesel cars on air quality, public health and	
	eutrophication in Europe', Environmental Research Letters 12 (2017) 094017 dated	
	24 March 2017	
Exhibit 17.	European Commission, 'The Clean Air for Europe (CAFE) Program - Towards a	
	Thematic Strategy for Air Quality, COM(2001) 245 final dated 4 May 2001	
Exhibit 18.	Information about Environmental Zones in the Netherlands - Cars and Vans	
Exhibit 19.	M. Hijink & C. Houtekamer, 'Not only Volkswagen tries to appear clean and	
	economical', <i>NRC</i> 22 September 2015	
Exhibit 20.	Press release Groupe PSA Blue HDi system 2013.	
Exhibit 21.	Press release on the introduction of CTDTi diesel engines, General Motors 2014	
Exhibit 22.	General Motors press release on Blue Injection 2016	
Exhibit 23.	Screen shot website Opel Blue Injection	
	-	

- **Exhibit 24.** Introduction of Blue Injection in Opel Cascade, Astra, Mokka, Corsa, Movano and Isignia
- Exhibit 25. Y. Bernard et al, 'White Paper Catching defeat devices', ICCT June 2019
- Exhibit 26. Print screen film dated 19 February 2015 on Peugeot official Youtube channel (https://www.youtube.com/watch?v=yQq6ch1pY2E, visited 9 July 2021)
- **Exhibit 27.** Print screen Youtube video dated 19 February 2015
- Exhibit 28. Print screen Youtube dated 19 February 2015
- Exhibit 29. Print screen Wayback Machine dated 24 March 2015
- Exhibit 30. Print screen Wayback Machine dated 1 July 2014
- Exhibit 31. Print screen Wayback Machine dated 28 July 2016
- Exhibit 32. Print screen Wayback Machine 15 June 2017
- Exhibit 33. Print screen Wayback Machine 30 March 2018
- Exhibit 34. Print screen Wayback Machine 13 July 2014
- Exhibit 35. Print screen Wayback Machine 29 June 2017
- Exhibit 36. Print screen Wayback Machine 1 March 2015
- Exhibit 37. Print screen Wayback Machine 26 March 2014
- **Exhibit 38.** Print screen Wayback Machine 2 July 2015
- Exhibit 39. Print screen Wayback Machine 5 July 2016
- Exhibit 40. Print screen Wayback Machine 22 April 2016
- Exhibit 41. V. Franco et al 'Real-world exhaust emissions from modern diesel cars (Part 1 Aggregated results)', *ICCT* October 2014
- Exhibit 42. T. Gardner, P. Lienert, D. Morgan, 'After year of stonewalling, Volkswagen stunned US regulators with confession', *Reuters* 24 September 2015
- Exhibit 43. C. Houtekamer, 'Everything you want to know about the Volkswagen scandal', *NRC* 23 September 2015
- Exhibit 44. K. Mathiesen & A. Neslen, 'VW scandal caused nearly 1m tonnes of extra pollution, analysis shows', *The Guardian* 23 September 2015
- Exhibit 45. Ministère de l'Environnement, de l'Energie et de la Mer, Rapport final de la commission indépendante mise en place par la Ministre Ségolène Royal après la révélation de l'affaire Volkswagen', 29 July 2016
- Exhibit 46. TNO report 2015 R10702 dated 18 May 2015
- Exhibit 47. Bard van de Weijer, 'The cleanest diesels are also well above the emission standard', de *Volkskrant,* 10 May 2016
- Exhibit 48. NOS article 20 January 2016 (<u>https://nos.nl/ artikel/2081650-mercedes-kou-veroorzaakte-grote-stikstofschijn</u>)
- Exhibit 49. TNO report 2016 R11177 dated 10 October 2016.
- Exhibit 50.Berner Fachhochschule, 'NOx-Emissionsmessung von einem Passenger Car Renault
Espace Diesel, EURO 6b auf dem Rollenprüfstand', November 2015.
- **Exhibit 51.** Department of Transport Report April 2016

Exhibit 52. The International Council on Clean Transportation, 'Road Tested: Comparative Overview of Real-World Versus Type-Approval NOx and CO2 Emissions from Diesel Cars in Europe', September 2017 Exhibit 53. 'Five facts about diesel the car industry would rather not tell you', Transport & *Environment* September 2015 Exhibit 54. Dieselgate: Who? What? How?, Transport & Environment, September 2016 Exhibit 55. Marcel Rosenbach and Gerald Traufette, 'Experts weisen Opel weitere Abgasmanipulationen nach', Der Spiegel, 12 May 2016 Exhibit 56. https://www.thetruthaboutcars.com/2016/05/gm-europe-swallowed-dieselgatemaelstrom/ Exhibit 57. Eoin Bannon, 'French probe uncovers more misleading emissions data', T&E, 29 February 2016 Exhibit 58. First report Royale Commission & L'union technique de l'automobile April 2016 Exhibit 59. **IFPEN Report May 2017** Exhibit 60. Stephane Mandard, 'Dieselgate: PSA et sa, stratégie global visant à fabriquer des moteurs frauduleux, Le Monde, 8 September 2017 Joel Saget, "Peugeot to be prosecuted in France over 'dieselgate', france24.com Exhibit 61. Exhibit 62. AFP, 'Dieselgate: Peugeot miss en exam à son tour en France, Le Monde, 10 June 2021. Exhibit 63. PSA response to fraud allegations in Le Monde (June 2021) [see https://www.autoexpress.co.uk/car-news/consumer-news-vw-emissions/100844/peugeotcitroen-emissions-probe-reveals-19m-cars-could; and also https://www.thesun.co.uk/motors/3407516/peugeot-citroen-under-formal-investigation-afterallegations-of-cheating-in-diesel-emissions-tests/ Exhibit 64. ANP, 'French justice is investigating Peugeot in diesel scandal' nu.nl Statement Stellantis dated 9 June 2021 indictment of Automobiles Peugeot SA Exhibit 65. Exhibit 66. Bundesministerium für Verkehr und Digitale Infrastruktur, 'Bericht der Untersuchungskommission "Volkswagen", April 2016 Exhibit 67. M. Panait, '630,000 Diesel Cars of German Origin to Be Recalled in Europe, More to Follow', AutoEvolution, 22 April 2016 AFP, 'Opel reported to have manipulated diesel car exhaust emissions', Deutsche Exhibit 68. Welle, 14 July 2018 Reuters, 'German prosecutors raid Opel offices in diesel probe', Deutsche Welle, 15 Exhibit 69. October 2018 Exhibit 70. Reuters, 'Around 100,000 Opel vehicles to be recalled in diesel probe: ministry, Reuters, 15 October 2018 Exhibit 71. Opinion AG Sharpston 30 April 2020, ECLI:EU:C:2020:323 (C-693 18) ECJ 17 December 2020, ECLI:NL:EU:C:2020:1040 (C-693 18) Exhibit 72. Exhibit 73. Bosch Group Annual Report 2016 Exhibit 74. 'Bosch probes whether its staff helped VW's emissions rigging', Automotive News 27 January 2016

Exhibit 75.	M. Taylor, 'EPA Investigating Bosch on VW Diesel Cheater Software', Car and Driver
	23 November 2015
Exhibit 76.	Press release 'The brain of diesel injection - New Bosch EDC17 engine management
	system', <i>Bosch</i> 28 February 2006
Exhibit 77.	M. Contag et al, 'How They Did It - An Analysis of Emission Defeat Devices in Modern
	Automobiles', Ruhr-Universität Bochum & University of California
Exhibit 78.	Volkswagen v. Robert Bosch, LLC, MDL No. 2672 CRB (JSC) (N.D. Cal) (Third
	amended Volkswagen-branded franchise dealer amended and consolidated class
	action complaint)
Exhibit 79.	K. Matussek, 'Three Bosch Managers Targeted as German Diesel Probe Expands',
	Bloomberg, 29 June 2017
Exhibit 80.	Press release Bosch PI10617 BBM FFKB dated 25 April 2018
Exhibit 81.	US settlement agreements between Bosch and Volkswagen, Fiat Chrysler and
	Daimler
Exhibit 82.	Cases in which Bosch is co-defendant in connection with EDC17 in diesel vehicles in
	BMW, General Motors and Ford
Exhibit 83.	A. Krok, 'Germany slaps Bosch with \$100 million fine for role in Dieselgate', $CNET$ 23
	May 2019
Exhibit 84.	Parliamentary Papers II 2018-2019, 34 608, no. 13 (Amendment by Member Van
	Gent)
Exhibit 85.	Supreme Court 26 February 2010, ECLI:NL:HR:2010:BK5756
Exhibit 86.	Court of The Hague, 26 May 2021, ECLI:NL:RBDHA:2021:5337
Exhibit 87.	Court of Amsterdam, 20 November 2019, ECLI:NL:RBAMS:2019:8741
Exhibit 88.	Parliamentary Papers II 2016-2017, 34 608, no. 3 (Explanatory Memorandum)
Exhibit 89.	Claim Code 2019
Exhibit 90.	Parliamentary Papers II 2017-2018, 34 608, no. 6 (NV II)
Exhibit 91.	CVs of directors and supervisory directors of the Foundation
Exhibit 92.	Notice of Liability, Stellantis, Importers and Bosch dated 4 June 2021
Exhibit 93.	Response (lawyer of) Bosch of 22 December 2020 to the first notice of liability