



Transport Select Committee

Oral evidence: Volkswagen Group emissions violations, HC 495

12 October 2015

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Members present: Mrs Louise Ellman (Chair), Robert Flello, Mary Glindon, Karl McCartney, Stewart Malcolm McDonald, Mark Menzies, Huw Merriman, Will Quince, Iain Stewart, Martin Vickers

Questions 1-142

Examination of Witnesses

Witnesses: **Paul Willis**, Managing Director, Volkswagen Group UK, and **Mike Hawes**, Chief Executive, SMMT, gave evidence.

Q1 Chair: Welcome to this afternoon's session of the Transport Select Committee. The issue of emissions violations is an unfolding crisis. The focus is on the shocking situation of Volkswagen cheating, but important questions are also raised about the testing process more widely. In this session we will be raising all of those extremely important issues. Could I ask the witnesses to identify yourselves—tell us who you are and your positions?

Mike Hawes: I am Mike Hawes, chief executive of the Society of Motor Manufacturers and Traders.

Paul Willis: I am Paul Willis, managing director of Volkswagen Group, United Kingdom.

Q2 Chair: Mr Willis, I understand that you want to make a short statement. Would you like to do that?

Paul Willis: Yes indeed. Thank you very much for inviting me here today. First of all, I would like to apologise sincerely and unreservedly for the fact that Volkswagen has significantly let down its customers and the wider public over the findings of irregularities in some of the diesel-powered vehicles we produce. We recognise that we have fallen short of the standards expected of us and we will take all necessary steps to regain trust. I can assure you that the board of management of Volkswagen AG is taking these findings extremely seriously. Currently, my colleagues in Germany are working carefully and diligently developing and optimising the precise technical solutions to remedy the affected engines.

With regard to the United Kingdom specifically, on 30 September I announced to our customers how and where to get information to check if their vehicles are affected. We have developed a self-serve information facility on our websites. We are extensively using newspaper and digital media to steer customers to the web, and in addition all affected customers are currently being contacted by a personal letter. We will continue to keep close to our customers during the remedy process.

I would like to reiterate again my sincere apologies. I will personally make sure that I and my dedicated team work tirelessly and relentlessly to put things right, and in doing so begin the first steps on the path to regaining customer trust in the Volkswagen group. Thank you.

Q3 Chair: Thank you, Mr Willis. We are certainly pleased to hear your apology. It is very good to hear that said so directly, and also the steps you are willing to take. We will be pursuing you further on that. I would like to begin by asking you when was the first car fitted with a defeat device sold here in the UK?

Paul Willis: It seems from the information I have at the moment that it was around 2008.

Q4 Chair: When did you know about that?

Paul Willis: I knew nothing about this subject until 19 September this year when I first heard it on the news from the United States.

Q5 Chair: Yet from the time that Volkswagen admitted that defeat devices had been fitted in cars on the roads in the UK to the time those cars stopped being sold to new customers, 4,000 vehicles were sold with those devices in them. Ten days had elapsed. Why didn't Volkswagen take action immediately?

Paul Willis: We did take action, if I can just go through it. First of all, we did not sell 4,000 more cars between 22 September, when we had clarification that there were affected vehicles in the UK, and 30 September. We actually sold 1,079 vehicles, which, compared with the full volume in the month of 92,000 cars sold, is a very small proportion.

Let me take you through the precise timeline—

Q6 Chair: But it is a fact, isn't it, that you were still selling those cars in the UK although you knew that they had been fitted with defeat devices.

Paul Willis: First of all, to be absolutely clear, I did not know that they were fitted with defeat devices. That has not yet been clarified. Let me come back to the timeline—

Q7 Chair: I want to clarify what you actually did and what knowledge you had. Volkswagen admitted that there was a problem with cars on the roads of the UK, yet about 10 days elapsed before you actually stopped selling all new cars.

Paul Willis: Yes. Can I take you through the timeline, please?

Q8 Chair: Did you wait 10 days or didn't you before you stopped selling new cars?

Paul Willis: I could not stop selling cars if I did not know which cars were affected. If you let me take you through—

Q9 Chair: Tell me what the problem was.

Paul Willis: What happened was that on 22 September we were made aware from Wolfsburg that there was a potential problem with diesel engines. On 28 September we were getting more details and I phoned Mr McLoughlin, the Transport Secretary, to say to him that as soon as I knew which vehicles were affected—because I did not know which vehicles were affected—I would voluntarily stop selling those cars. That phone call took place at 3 o'clock on 28 September.

On 30 September at 9 am I received the VIN numbers from the various different factories. This is the point. There were eight days between when we first knew we were affected in Europe until I stopped selling cars. The reason for that is the complexity of the number of cars involved; for example, there are 60 different models, five different brands, three different engines and two different transmissions. I found out the VIN numbers at precisely 9 o'clock and at 1.30, once I had clarified it with the computer systems, I stopped selling the cars voluntarily.

Q10 Chair: By saying “voluntarily” you make it sound as if you were doing a good deed. Surely by then you knew that cars with those devices were on UK roads, so you would have to stop.

Paul Willis: It took me four hours and 30 minutes from the time I knew of the affected cars until I took action—four hours and 30 minutes.

Q11 Chair: Was the defeat device software actually used in type-approval testing in the UK?

Paul Willis: From what I understand, and I am not an engineer, it seems that the system of gas regulation in the engine influenced the NOx output in cars that we sell in the UK. These cars are type-approved, of course, across the whole of Europe and they are type-approved in Germany, with someone separate overlooking it. One of the question marks we have is how strong and how fit for purpose the testing regime is.

Q12 Chair: Are you saying that the problem was not with the company but with the testing regime?

Paul Willis: No, absolutely not. We mishandled the situation in so far as, within our engines, the engines behaved differently within the testing regime from the real world. That is why we need to fix the cars. That is why we need to get the customers in and put the cars right. We mishandled the situation, without a shadow of a doubt.

Q13 Chair: There are two issues, aren't there? There is the deliberate fitting of defeat devices with the intention of deceiving; then there is a separate issue about test conditions and on-road conditions.

Paul Willis: Yes; that is indeed right.

Q14 Robert Ffello: I want to drill down a little bit. You say defeat devices and I want to be clear. Are we talking about a software cheat device, and that's it, in which case why is there talk about having to retrofit parts to these vehicles? Can you clarify that?

Paul Willis: I am not an engineer. It seems that in the test regime the engine behaved differently from the real-world situation via software. The software regulated the flow of gas in the engine, which reduced the NOx.

Q15 Robert Ffello: Are you saying that the only thing that will need to be done to these cars is a software change?

Paul Willis: There are two examples, actually. The first example is that if you take the 1.2 million affected cars, 700,000 of which are two litre diesel and 13,000 are 1.2, the fix is software. However, there is a more complicated fix required, which is software and some injectors for the 1.6 engine. That is still over 400,000 cars, and that will take longer to fix.

Q16 Robert Ffello: Why do the injectors need to be changed?

Paul Willis: I do not know. I am not an engineer and I cannot answer that. Sorry.

Q17 Robert Ffello: You have nobody advising you who has told you why the injectors need to be changed.

Paul Willis: I have had no one advise me on the detail, no. I am not aware. What we are saying is that our obligation is to fix these cars. We will get them in as fast as possible and make sure that we get back trust from our customers.

Q18 Robert Ffello: With the vehicles that need a physical change—as you say, the injectors—there are no other changes that need to be made that you are aware of. There are no urea tanks or anything like that; it is solely on the injectors.

Paul Willis: Exactly, yes. That is my understanding.

Q19 Robert Ffello: On injectors, do vehicles that do not have the defeat software have the right sort of injectors? Do the injectors work fine?

Paul Willis: I am sorry; I cannot answer the question. What I can do is write to you separately on precisely your question, but I cannot answer that question.

Q20 Robert Ffello: It would have been helpful to come with that sort of information. The further line of questioning I would have liked to pursue is that somebody somewhere who is an engineer—a senior engineer—would have known whether or not the right parts were being fitted to the vehicle, and therefore would have known whether this was just a simple software cheat or whether there was a more physical engineering issue to be resolved.

Paul Willis: I think the answer to that question, as you will have read in the media, and I have been advised from members of the board, is that we have embarked on an independent and wide-ranging investigation into precisely what has gone on.

Q21 Robert Ffello: When is that going to be published for people to analyse?

Paul Willis: I do not have the precise date of that publication, but I can tell you that within Wolfsburg that investigation is ongoing and we are determined to find out exactly why, who and when, and what went on.

Chair: We would like to have information about when it is expected to be complete. That would be helpful to us.

Q22 Will Quince: Specifically in relation to the defeat software, what number of staff work in the quality assurance team that tests the software in the on-board computers?

Paul Willis: In Germany?

Will Quince: Yes.

Paul Willis: I do not know. Could I qualify that? My role in the United Kingdom is in sales, marketing, distribution and finance. The department that looks after the engines is technical development in Wolfsburg. I have no direct relationship with that, although of course for this hearing today I have diligently prepared in order to try and answer your questions. I am sure that many thousands of people work in technical development.

Q23 Will Quince: I appreciate that. Many thousands of people is the answer I expected. There are 60 models, five brands, three engines and yet two rogue engineers. Can that be possible?

Paul Willis: Two rogue engineers? I have no idea if there were two rogue engineers. I think that is what the investigation has to find out. We are determined to get to the bottom of this. We have to get to the bottom of this issue to regain the trust of our customers.

Q24 Will Quince: What assessment have you taken to ensure that the modifications made in terms of the defeat software have not affected safety in any way, as so much is controlled by an on-board computer?

Paul Willis: Safety is a completely different issue. We are now moving to talking about testing regimes. If you look at the testing regime on emissions, for example, we know that it is old-fashioned and not fit for purpose. I think that is common knowledge because—

Q25 Chair: But the question raised is about safety.

Paul Willis: I will come to safety. I am trying to illustrate this because it is a very important point for our consumers. The point is that the emissions regime is out of date and is under discussion for reform. The regime on safety is much closer to the real world. You can read anywhere of completely independent tests that really look at it in all sorts of detail: for example, Euro NCAP. We know that Euro NCAP very diligently look at stars based on real-world tests of a car's performance.

Q26 Will Quince: With respect, we are talking about trust. You have a software issue, but if we cannot trust you—the organisation—in terms of emissions testing, the public are right to question whether they can also trust you in terms of safety. I raise that because currently the regulators do not have access to your on-board computer software; they cannot access that. Do you think it is right and proper that now is the time that regulators should be able to look at your software?

Paul Willis: I really understand why you ask that question. We have a duty to the public and to consumers to reassure them with regard to safety. Our cars are safe. By the way, there is no indication that this emissions issue relates to the safety of cars, but I agree with you that it does put trust into question. There is no debate about that. We now have a big

job to regain trust. We need transparency and openness. Please be reassured that that is what we will do.

Q27 Karl McCartney: Mr Willis, what car do you drive?

Paul Willis: At the moment I drive a Golf GTE. My son has an Audi A1 and my wife has a Q5.

Q28 Karl McCartney: Diesel?

Paul Willis: My wife's is diesel; my son's is diesel; and mine is a petrol hybrid.

Q29 Karl McCartney: You mentioned that you were a marketeer rather than an engineer. How many people do you think make the decision on what vehicle to buy based on its environmental credentials?

Paul Willis: We have data on that. I am sure that from the data up to 5% will base it on environmental credentials. People look at cost, for sure, as well as miles per gallon and so forth. It is an important factor and one we take seriously. I say that against the background of this problem we have, but I do not want to trivialise that. This is a very important issue and we take it very seriously.

Q30 Karl McCartney: Bosch supposedly contacted Volkswagen at some point in the past. Are you aware that they did, and are you aware of the person who made the decision to ignore what they contacted Volkswagen about?

Paul Willis: You used the word "supposedly". I cannot comment on the media and I don't know, but I am very sure that the investigations will unearth the truth. It is critical that we unearth the truth because we need to get trust back from our customers in the United Kingdom, across Europe and indeed the United States. I fully agree that we must get our trust back, but I cannot comment on what Bosch said or did not say. We must find out, however.

Q31 Karl McCartney: Who made the decision among your senior managers to change the relationship with Bosch and replace them with Delphi?

Paul Willis: I have no idea. I cannot answer that question.

Q32 Karl McCartney: Did it have any bearing on—

Paul Willis: I really do not know. I am sorry. I do not work in technical development. I am very sure that any of these questions about who and why, or what discussions supposedly went on, will come out in the investigation. This investigation is very important to us. We have to re-establish trust, in Europe and with our consumers.

Q33 Stewart Malcolm McDonald: Mr Willis, the Transport Secretary has confirmed that the costs for retesting, which are commencing this week, will be met by his departmental budget. Why should my constituents pay for Volkswagen's con?

Paul Willis: Can you tell me what these tests are?

Q34 Stewart Malcolm McDonald: The Transport Secretary, in his letter to Louise Ellman—the Chair of this Committee—says that the “programme will be funded from within my existing budgets” in relation to retesting that is commencing this week. “The programme will involve, in every instance, a VCA engineer directly observing the retest; the retests will take place in independent laboratories...and the vehicles will be sourced independently of manufacturers.” Why should my constituents pay for that?

Paul Willis: They shouldn’t. Your constituents should not pay for it; absolutely not. If we have to have a separate discussion with the VCA, we should have it. They should not pay for it.

Q35 Stewart Malcolm McDonald: I was interested to hear you talk about the question of the fitness of the testing regime itself. It has been reported that manufacturers often shop around Europe to find the testing regime that is most beneficial to that manufacturer. Are you aware of Volkswagen ever doing such a thing?

Paul Willis: I am not aware of that. I should make some comments on what I know about the testing regime. The testing regime takes place in different labs across all manufacturers in all countries across Europe. In Europe they are independently verified by TÜV. In the case of our company it is TÜV. As I understand it, TÜV is the public company that signs off on these tests. What happens then is that the results of the tests are distributed to various countries for certification. That is the process. As far as I know, from my knowledge, there is no question of anything going on specifically with the testing regime.

Q36 Chair: Do Volkswagen do their own testing?

Paul Willis: The testing takes place in a Volkswagen laboratory, yes, but it is overseen, and the metrics—the circa 60 different tests—are overlooked independently by TÜV, which is a completely independent company.

Q37 Chair: Does it look at real conditions on the road?

Paul Willis: No.

Q38 Chair: It does not do that.

Paul Willis: No, but it does not do that for any vehicle manufacturer in Europe.

Q39 Chair: Mr Hawes, a number of issues have been raised. Clearly Volkswagen is at the centre of all of this, but there are other issues too. You have had 20 years in the motor industry. Have you ever heard anything about manufacturers doing things like removing spare tyres and windscreen wipers or taping up radiators in order to affect test results?

Mike Hawes: No, never.

Q40 Chair: In your 20 years in the industry.

Mike Hawes: In my 20 years I have never heard of or seen anything like that.

Q41 Chair: You have never heard of any of that at all.

Mike Hawes: No, and given, as Mr Willis says, that these tests are independently verified, in the UK the VCA would intervene to stop them should it find any vehicle not in production conformity.

Q42 Chair: You are clearly saying to me that in all your 20 years in the motor industry you have not heard of any of those practices taking place at all.

Mike Hawes: No.

Chair: Very interesting.

Q43 Iain Stewart: I would like to explore the gap between laboratory testing and the real world for both emissions and fuel efficiency. Would you accept that consumer confidence in the industry is fundamentally broken, and people cannot believe the figures they are presented with when deciding which car to purchase?

Mike Hawes: I do not think consumer confidence or trust is broken. Certainly consumers are more than aware of the difference, as indeed is the industry, between published test figures and the experience they may get in the real world. There are a number of reasons behind that. When a customer is potentially looking to purchase a vehicle, he or she will compare the performance figures against different models. Those figures have to be published. If you look at any advert for a new car, you will see those official performance figures at the bottom. They are meant for comparison purposes and they always contain the disclaimer that the actual figures may vary in the real world. That is because there are very real differences between what goes on in a test cycle and what happens in the real world, for some fundamental and sound reasons.

Q44 Iain Stewart: But the average consumer will not know what that difference is. What is the difference? Is it a margin of 1% or 2%, or is it several times?

Mike Hawes: It can be several times that. As I said, the test cycle dates back to the early 1980s, and, as the industry recognises, it is not fit for purpose. One of the simplest ways to explain it is that, when you put the vehicle on the test cycle, all the new electronic devices that you would turn on in the real world—air-conditioning, heating, satnav and Bluetooth—have to be switched off by law, because when the regulation was created that sort of technology was not available. That is why it needs to change.

You obviously then have the issue about real-world driving conditions. Individual driver behaviour and driving conditions such as congestion, temperature, load, maintenance and gradient all give huge amounts of variation which are basically ruled out on the test cycle to allow a repeatable, robust and controlled comparison for every vehicle tested in Europe.

Q45 Iain Stewart: How do we fix this? How do we restore consumer confidence? What is the real-world test that needs to be introduced?

Mike Hawes: Exactly. The fix for this will be the introduction of so-called real-world driving emissions. We are in the fortunate position that only in the last few years do we have the technology that allows you to attach, effectively, a box on the back of a vehicle to test what are often trace elements of emissions and rule out the ambient level of those emissions. For the latest standard—which you may be aware is Euro 6C—where you are

testing NOx particulate mass and particulate number, that technology has certainly only been available on the market for the past year or so.

Q46 Iain Stewart: When will all this be introduced? When can consumers have certainty?

Mike Hawes: We have not had sight of the latest Commission proposal, but certainly the plan is for a monitoring phase to enter from the beginning of next year and for the regulation to apply from the beginning of 2017.

Q47 Chair: Mr Hawes, is it not the case that the International Council for Clean Transportation—the ICCT as it is known—has found the difference between emissions in the lab and on the road to vary by around 30% to 35%, and going up? Isn't that a bit at odds with your statement that there is not really much difference?

Mike Hawes: I did not say that there was not much difference. I did not give a number on the difference.

Q48 Chair: Isn't 30% a lot?

Mike Hawes: It could well be that. It does vary, for the reasons I outlined earlier. Those differences between a test cycle in the laboratory and the infinite variations of real-world driving will give you a greater variation and a greater departure from the regulated tests that all manufacturers, by law, have to complete and publish.

Q49 Chair: Are you saying that all that difference is accounted for by the difference between lab conditions and on-the-road conditions rather than by deliberate manipulation or deliberate acts taken, things done by manufacturers, which seem to be pretty well known in the car world but which you have not heard of?

Mike Hawes: On this idea about things being pretty well known, I understand that the VCA are giving evidence afterwards. I would invite you to ask them.

Q50 Chair: But I am asking you as well, because you have made important statements on behalf of your organisation. I am just trying to get underneath that to understand where you are coming from.

Mike Hawes: As I said, I am not aware of any of the actions that you have described taking place on a test cycle. Certainly the difference between a test cycle and real-world emissions will be more significant as those technologies, and indeed powertrain technologies, vary and develop.

Q51 Robert Ffello: Mr Hawes, one thing that comes out of using standardised testing, albeit that it does not reflect the real world, is that there is a comparable—a purchaser or an intending purchaser can see the difference between different manufacturers. Undoubtedly, there will be some of my constituents and some residents of this country who will have bought a VW brand—whether a VW, an Audi or whatever—on the basis of comparing the standardised figures from that manufacturer with other manufacturers who are involved with the SMMT.

I have two brief questions. First, are you aware of other manufacturers who are intending to take legal action against VW for lost sales, in terms of sales that have gone to VW because the intending purchaser thought the figures were better for a VW car, not realising that of course they were being conned? Secondly, are you aware of other manufacturers who are doing, or have been doing, the same thing as VW?

Mike Hawes: I am not aware, and I have no evidence that any other manufacturer has undertaken—

Q52 Robert Ffello: You are not aware or you have no evidence.

Mike Hawes: Both. I am not aware, and nor do I have any evidence that would suggest that any other manufacturer, to be absolutely clear, has undertaken this sort of activity. Equally, I am not aware of any potential legal action from those manufacturers against Volkswagen.

Q53 Robert Ffello: Don't you think it is strange that other manufacturers are not looking at it and thinking, "Hang on, we have lost all these sales to VW"?

Mike Hawes: I would suggest that they are waiting to see the results of the inquiries and so forth, and then to determine whether any action should be taken. There would be no guarantee that there will be action.

Q54 Chair: Mr Willis, do the vehicles fitted with type EA 189 engines in the UK contravene EU rules on nitrogen dioxide emissions?

Paul Willis: According to the law and test cycle currently, no.

Q55 Chair: That sounds a slightly qualified answer. The answer is no, is it?

Paul Willis: The answer is no.

Q56 Chair: I would like to know a bit more about what you are now going to do in relation to the people who have bought your vehicles. Have you recalled the vehicles or not? It is a little difficult to understand. We are told there is a voluntary recall but it is not quite clear what that means. Can you tell us more?

Paul Willis: Over the weekend, we started progressively to write to all the customers personally and say, "You can find out whether your vehicle is affected or unaffected on the internet." It is very important that we make the personal call. The current situation is that the German federal automobile authority are in discussion with my colleagues in Wolfsburg. We expect them to come back to us formally with a binding timeline of precisely what we do and when. It varies a little bit by model, but it goes something like this. We will agree with the German Federal Motor Transport Authority between now and the end of the year precisely what the fix is, and take the fix through durability and quality testing. That is step number one.

Step number two is to progressively start to call the cars back, step by step, from customers. We will call the first cars back through a service action in the first quarter. Those will be the two litre engines. Then progressively through the year we will call the cars back

step by step. In the United Kingdom I intend to contact every single customer to try to call those cars back.

Q57 Chair: Are you going to make contact with them, or do they have to contact you?

Paul Willis: We started to make contact over the weekend. We have not told them exactly when we are going to pull the car back because I cannot tell them that. We have said, “Look, you can check if the car is affected through the website and we will be in touch.” I will ensure progressively, step by step by step, that there is a contact programme whereby everyone in the UK that owns an EA 189 will be absolutely familiar with what the process is. We will put those cars right to regain the trust of our customers.

Q58 Huw Merriman: In terms of the fix, Mr Willis, is it safe to assume that there will be an impact on your customers’ fuel performance, and indeed fuel bills, once the fix is in place?

Paul Willis: No, it is not the case. The brief the engineers are working to is that there cannot be any change in the miles per gallon.

Q59 Huw Merriman: I do not quite follow this issue. If this is such a straightforward fix, why did your engineers go to the lengths and extent of cheating it rather than putting it in place initially?

Paul Willis: The point is that we have to separate testing and real-world driving. We must handle the test through a piece of software. I am talking in layman’s terms. Now we need to make sure that the software is consistent through the testing and driving. That’s it.

Q60 Huw Merriman: I want to pursue this line. It strikes me that there is now a three-month delay until the cars will be recalled. In reality does that give you three months to come up with the solution, because you just don’t know?

Paul Willis: At the moment we have taken the solution to the German Federal Motor Transport Authority. They are discussing with us the technicalities of the solution, making sure it is fit for purpose and of the right quality level. I absolutely apologise to all of you and to our customers. The reason why it is taking so long, as I said, is that we have 60 different models, five different brands and three different engines with two different transmissions, so it takes time. You will have heard the quotes from our board, which I fully agree with and support: it is better to be thorough and get it absolutely right than do it in haste. However, I understand the question about why it is taking so long. That is why I keep coming back to the fact that it is important that we write, and that we communicate on a regular basis with our customers. The worst thing we can do is not to talk. We must contact our customers, but it is important that we take the right time to do it correctly for our customers.

Q61 Huw Merriman: I agree, but that is my point. At this time I am surprised that you can categorically rule out there being any impact on fuel performance with so much uncertainty. I am surprised that you are willing to do that.

Paul Willis: I did not categorically rule it out. What I said was that one of the key objectives is that we make sure that any software patch change we make maintains the same level of fuel consumption. That is the brief to the engineers, and that is what we intend to do to regain the trust of our customers.

Q62 Mark Menzies: Volkswagen have said that the vehicle corrections will be completed by the end of 2016. How has that timeframe been arrived at?

Paul Willis: I assume that timeframe has been arrived at through looking at the timing with the KBA—sorry I mean the German motor industry federation. I have a chart here that shows the timing. All that discussion and time pressure is of course important for our customers. The timeline says circa the end of 2016, but I have to say that is uncertain. We have done calculations in the UK of the capacity of the number of ramps in our retailer network and the number of technicians we have. My personal objective, of course, is to try to get it completed by the end of 2016, but I have to say to you that there is some risk involved in that—there really is. The goal is to try to get it finished by the end of 2016.

Q63 Mark Menzies: Michael Horn told the US Congress last week that affected cars will require more extensive corrections, including possible insulation of urea tanks that neutralise harmful emissions. With that in mind, how will that impact on the timetable?

Paul Willis: My understanding is that the addition of urea tanks is not part of the solution in Europe. There is a different technical engine configuration in the United States. There is a different testing regime and there are different regulations. It is different for the United States and there will be a different cost as well.

Q64 Mark Menzies: Moving on to how this has impacted on your customers and my constituents, it is fair to say that not only have Volkswagen been deceitful but you have treated them like fools. With that in mind, what compensation are you seeking to give people who bought your cars in good faith and were sold a pack of lies?

Paul Willis: We have an absolute obligation to fix these cars, to put them right and to make sure that they have the same characteristics and the same miles per gallon as we committed to. That is what we are committing to do.

Q65 Mark Menzies: Will the drivers be compensated for any inconvenience suffered, or loss of value?

Paul Willis: Let me talk about inconvenience first of all. I had a discussion with some representatives from the Scottish transport unit, who were asking me questions on behalf of Ministers in Scotland. They made a very good point: what about people in rural areas who live far away from the retailers? Of course, where a customer is inconvenienced or lives a long way away, we will have to provide a loan car. We will have to make sure that we do this to the maximum of convenience for our customers. We have to get their trust back.

Q66 Mark Menzies: What about loss of value?

Paul Willis: I think it is premature to talk about loss of value. If you read the newspapers they talk a lot about loss of value, but if you look at what happened in the United States

there were serious safety-related issues. I am not trying to trivialise what we are talking about here, of course, because this is a very important issue, but it is not a safety-related issue. There is evidence in the United States that on serious safety-related issues there was not loss of value. However, we have to make sure we regain the trust of our customers, and we need to look at everything as it unfolds.

Q67 Mark Menzies: What about the dealers? I understand that in the United States Mr Horn is offering \$1,500 as a sales incentive to dealers who sell cars. Dealers in the UK are now clearly suffering as a result of all this. What are you doing to help them?

Paul Willis: The situation with dealers is one of great concern. We talk about the impact on employment. In my company we employ less than 900 people, but in the dealers there are over 21,000 employed.

Q68 Mark Menzies: What are you doing to help them? That was my question, Mr Willis.

Paul Willis: What we have done already to help them is to change stocking plans, so that we will take all the interest for the vehicles that are on sale stop—a stock of around 4,000 units—and we will definitely not charge our retailer network interest on that. We have started to make changes in some of our earnings potentials straight away. For example, we will pay customer satisfaction bonuses.

Q69 Mark Menzies: Dealers thought that Volkswagen was a company of integrity. They believed in the product they were selling. They were selling something as a result of Volkswagen's deception and are now out of pocket. What are you doing to compensate those people?

Paul Willis: The dealers? Who do you mean?

Q70 Mark Menzies: The dealers; the 20,000 people that you referred to throughout the UK who are employed as a result of selling Volkswagen cars. What are you doing to support those people?

Paul Willis: First of all, the cars that they are selling today are EU 6 cars that are not affected. That is the first point. The second point is that we have most definitely changed their bonus thresholds so that they will earn the bonus thresholds automatically with regard to customer satisfaction. There will be no stocking costs for those 4,000 cars.

Q71 Mark Menzies: Are dealers happy with that?

Paul Willis: One step at a time. That is what we introduced immediately, when we knew the extent of the issue. The second step is that in the coming days my team are meeting all the retailers and their representatives to see precisely what we need to do next. Of course, we could not exist without our retailers. They are the backbone of our business, and therefore it is really important that we look after them and support them. Another important point is that they are at the forefront of the pressure and questions from customers, so it is absolutely imperative that we work with them and help them.

Q72 Mark Menzies: I have one final question. The Secretary of State for Transport has made it clear that the Treasury will not go after people looking for compensation for the false information that they were sold by Volkswagen. Rather than the taxpayers being out of pocket, what steps have Volkswagen taken to compensate the Treasury for the loss of revenue? Once again, I do not want to see money that the Treasury should have for spending on schools, hospitals and old age pensions being used to correct your deception.

Paul Willis: I am not sure there is any clear evidence that the CO₂ in these cars is different in the real world. However, we can have a conversation further downstream with HMRC.

Q73 Mark Menzies: But if it is, will you ensure that British taxpayers are not out of pocket as a result of Volkswagen's deception?

Paul Willis: The British taxpayer should not be out of pocket.

Q74 Mark Menzies: And you will make sure they are not out of pocket.

Paul Willis: If necessary we will have a meeting with HMRC.

Mark Menzies: Great. Thank you very much.

Q75 Martin Vickers: Following on from those questions, on the support that you would give your dealers, Mr Willis, how far does that extend? What about their employees who may very well lose their jobs as a result of loss of customer confidence?

Paul Willis: I think it is premature to talk about that. I hope that no one will lose their job. I really appreciate what you are saying, and it is a risk to us, but it is very important that we do not let that happen.

Q76 Martin Vickers: Indeed it is, but you cannot control the situation in terms of customer confidence. My constituents who work for your dealers will want to know how safe their job is.

Paul Willis: At the moment, in a number of our brands it seems that the sales and order level is at the level we would expect. In Volkswagen it has dropped a little bit, which is what I would expect. I think we need to see what happens in the coming weeks and months. I am certainly very sensitive to the point; we have an obligation to those people as well as to our customers.

Q77 Martin Vickers: I want to return to your earlier comments about responsibility and whether there was indeed corporate action that resulted in this deception. I was not quite clear whether you were supporting what Mr Horn said to the American Congress last week or not. Do you believe that there was a high level corporate decision for this deception, or was it just some rogue software engineers? If it was, what was their motive?

Paul Willis: That debate and discussion is pure conjecture. I have no idea. If you ask me questions about who did what, I would be guessing. I find it absolutely implausible that senior people in the company would have known of those issues with regard to the testing regime.

Q78 Chair: Mr Hawes, a final question to you. You are aware of what has happened at Volkswagen. You have heard a lot of concerns about the motor manufacturing sector generally in relation to testing. You do not seem to accept that. Do you think there is anything that the motor manufacturing sector itself needs to do to restore its reputation?

Mike Hawes: It would be premature to say that the reputation of the motor industry has been severely damaged by this. There is certainly a question mark over the issue of regulation and its application, certainly around air quality. The industry is doing a lot to address air quality issues. We recognise that air quality is one of the significant issues affecting society, not just in the UK but elsewhere, and we will continue to make significant investments to ensure that those issues are addressed. We are not the sole contributor. We are a significant contributor, especially in urban areas. The issue around regulation and its impact in the real world is one that is being addressed and has the full support of the industry.

Q79 Chair: What is the industry doing?

Mike Hawes: In relation to what?

Q80 Chair: To improve its reputation.

Mike Hawes: If you look at the significant contribution that we are making to the reduction in emissions from vehicles—

Q81 Chair: But big questions have been raised about emissions testing in general. There is a big question mark around that. What is the manufacturing industry itself doing to address that?

Mike Hawes: We will ensure that the real-world driving emission regulation, when it comes into force, delivers real-world emission betterment, and the level of investment in new technologies, not just in air quality but in CO₂, safety, fuel economy and everything like that, will continue to improve. Customers can be assured that the vehicles they buy from manufacturers remain fit for purpose, and will deliver the reliability, safety and emission performance that they should expect.

Q82 Chair: A lot of the questions are about the validity of data in relation to emissions, fuel usage, safety and other factors. Has the industry put any of its own information into the public domain? The industry must be doing some testing itself for its own purposes. Has any of that gone into the public domain?

Mike Hawes: We are not allowed to. By law any advertisement for a new vehicle has to contain the regulated data, which is what you see on any advert in terms of urban, extra-urban, rural and so forth. That is a legal requirement, even down to the font size that we must use.

Q83 Chair: Are you saying that the industry does not do any other testing of its own?

Mike Hawes: The industry will do lots of testing.

Q84 Chair: Does it give any of that information for public purposes?

Mike Hawes: It will do a lot of testing in the development of the vehicle. That development is about meeting the regulatory standards to allow it to be put on the road. It will clearly develop technologies that increase fuel efficiency, reduce other regulated emissions and address other issues as well. On the publication of figures, it must, as I said, produce CO₂ emission and fuel economy figures. It must meet the regulatory standards, which in terms of air quality at the moment is Euro 6—that is a pass or fail—and certainly in terms of safety we have issues like Euro NCAP, which is independent and assesses every single vehicle. That provides assurance to consumers about the vehicles being fit for purpose.

Q85 Chair: So you don't think the sector itself has any questions to answer.

Mike Hawes: Certainly there is an issue arising from this. The industry needs to ensure that it can maintain customer confidence such that consumers have confidence in the vehicles that are being sold and that they will deliver. Looking at the most recent registration figures, while it is early to say, I think most people still tend to be satisfied with their purchase.

Chair: Thank you both very much.

Examination of Witnesses

Witnesses: **Rt Hon Patrick McLoughlin MP**, Secretary of State, Department for Transport, **Michael Hurwitz**, Director of the Energy, Technology & International Directorate, Department for Transport, **Ian Yarnold**, International Vehicle Standards, Department for Transport, and **Paul Higgs**, Chief Executive, Vehicle Certification Agency, gave evidence.

Q86 Chair: Good afternoon and welcome to the Transport Select Committee. Secretary of State, would you like to introduce yourself and the members of the panel with you?

Mr McLoughlin: Thank you, Chair. I am Patrick McLoughlin, Secretary of State for the Department for Transport. Paul Higgs is the chief executive officer of the Vehicle Certification Agency. Michael Hurwitz is the director of the Energy, Technology & International Directorate at the Department for Transport. Ian Yarnold is the head of vehicle engineers for the Department.

Q87 Chair: Could you tell us when you first knew about Volkswagen's deception?

Mr McLoughlin: I became aware over the weekend of the 18th, when various statements were coming out from America about what Volkswagen said about the issues relating to Volkswagen. Let me just say that I think they have behaved in an appalling way. These devices were made illegal in 1998. It is fairly unbelievable to think that a company of the size and reputation of VW have been doing something like this and finding ways around regulations. I think they are going to suffer very substantial damage as a result, and they deserve to, quite honestly. It raises questions that we then have to ask about the overall

testing of emissions, which obviously flow from that, and that is exactly what we are going to be doing.

Q88 Chair: What steps have you taken to verify the information that Volkswagen have given on the number of cars with those defeat devices in them that are on the UK's roads?

Mr McLoughlin: There are a number of issues that flow from it that we have already put into action. As a country, we have been calling for real-world testing, as it is called, for some time. There have been moves on that front. I wrote to the two commissioners—both Commissioner Bieńkowska and Commissioner Bulc—on the information. There was a Transport Council meeting last Thursday at which this was discussed, and further work is being done between the two commissioners who are most directly responsible—industry and transport. Of course, there are wider impacts as far as the environment is concerned, too. Those are measures that we have taken straight away.

Q89 Chair: Could I stop you for a moment? I wanted to know about the number of Volkswagen cars on UK roads with defeat devices in them. Volkswagen have given us a figure of how many there are. Do you know if that is correct, or have you challenged it in any way?

Mr McLoughlin: I rely on them to tell us what the figures were. The figures, which I am sure were given to you earlier on, were 583,000 for Volkswagen—49% of those affected as far as the UK is concerned. Audi have 393,000. Skoda have 132,000, with 11%. SEAT have 77,000. Those are the figures they have given. I have no reason to dispute the figure. It is the second largest figure as far as Europe is concerned. Germany is obviously the highest, followed by the United Kingdom.

Q90 Chair: This is a company that has already cheated in a big way. Can we accept the figures that they give now?

Mr McLoughlin: I hope that they have learned from the way in which they have been exposed to be as open and honest with everybody in their dealings now. It would be very odd if they were not to be. At this stage, I take it that the 1.1 million that they have talked about is a true reflection of the issue as far as it affects this country.

Q91 Robert Flello: Mr Willis was at pains to say that he was not an engineer and did not seem to know a great deal, which annoyed me intensely, but there we go. Can I check with you whether any of the engineers from DFT have examined any of the vehicles in question? I am a little nervous about the language that is used. Sometimes we are talking about defeat devices, but Mr Willis was at great pains to say that it was just a simple software issue, with the exception of some cars that would need injectors replacing. Has the Department done any physical examination of the vehicles in question to ascertain whether VW are still spinning us a line, whether it is simply software or whether they have fitted something and they need to remove it?

Mr McLoughlin: With dread, because I do not want to incur your wrath, Mr Flello, I am going to say that I am not an engineer.

Robert Flello: A missed vocation.

Mr McLoughlin: But I am serviced by two very distinguished engineers, who can help to answer those particular questions. Yes, I have been trying to get to grips with exactly why some of the models can be a software change without the fitting of any extra hardware—

Q92 Robert Flello: And it will not affect their mpg.

Mr Patrick McLoughlin: It has been somewhat confusing to me. Paul or Ian would be better at answering this—possibly Ian.

Ian Yarnold: Thank you, Secretary of State. The answer to the question is no. We have not examined them specifically for a defeat device. What we have been doing is starting our test programme with two Skoda vehicles to look at how those vehicles perform in the laboratory and also in a real-world test. That is the same thing that was highlighted from the USA. You mentioned that Mr Willis said that it was injectors or software. We need to reflect for a moment on what a defeat device could be. It is probably a software programme within the engine management computer. It is not as though you can see this thing on the side of the engine, and it has a label or something. It is actually very difficult to find a defeat device. I think what Mr Willis was talking about were the solutions—the control measures that VW might put in place to bring the vehicles that they have identified back into the correct calibration for normal use.

Q93 Robert Flello: I am surprised that there has been no examination of the vehicles, but I hear what you say. To clarify, with terms such as defeat device it is ultimately a software issue.

Ian Yarnold: Mostly. I cannot guarantee that, but our understanding is that—

Q94 Robert Flello: Can I suggest that maybe a bit of work needs to be done by the Department's engineers.

Ian Yarnold: If I say, "Yes, it is a software answer," someone will come up and say, "But you could do it this way." There may be other devices that you could use, but the general approach would be a software solution.

Q95 Robert Flello: Given that we cannot trust VW on SEATs, Audis and so forth, and they also own MAN and Scania, is any work being done to see whether they have cheated on heavy vehicles as well?

Ian Yarnold: Not at the moment. We are focusing on the issue at hand. It may be the case that we reflect on those other products, but not necessarily just on the VAG products in the heavy vehicle sector. We might have to look more widely. It could be that any measures that we change in terms of regulations, to ensure that there is tighter control in the future if that is considered necessary, may well then drift across the broader piece to look at heavy vehicle engines as well.

Mr McLoughlin: In fairness, the immediate action we took was to find out what had been going on with VW once this had been exposed: how many vehicles were exposed in this country; were there other companies doing the same cheat, because that is what we call it, and getting reassurances from those other companies. Along with Paul, we also checked with the agency where we had an interest—whether there were any problems with vehicles

we had type-approved. That is something which is ongoing work. It is not something we can do overnight.

Q96 Robert Ffello: It began with just the VW brands but then moved into other brands. I am merely suggesting that there are indeed other avenues that need to be pursued.

Mr McLoughlin: You are absolutely right.

Q97 Chair: Are you absolutely satisfied that no other manufacturer has used the same or similar devices?

Mr McLoughlin: From the responses we have received so far from the manufacturers involved in manufacturing cars in this country, I am satisfied, but there are still some companies which have not yet responded to the letters we sent. We have asked for those responses by the end of the month, but most of the companies have already responded.

Q98 Chair: Are you accepting what they say, or are you doing any additional testing?

Mr McLoughlin: In the first instance, I would not expect any reputable company, and in the main these are reputable companies, to deliberately mislead once they are asked a specific question. No doubt the Committee will have its own views as to some of the other things it might ask us to do, and I will obviously consider very carefully what the Committee asks us to do, working across the whole of Government, with BIS, Environment and all the other Departments of Government that are involved in this issue. It does cover a number of different Government Departments and not just the Transport Department. We have an enviable record on car and engine production in this country. They are very important and significant manufacturers as far as the United Kingdom is concerned.

Q99 Mary Glendon: Mr Willis has just outlined to us the process of recall that the company intends to employ and how it will contact people. As the DVSA has oversight of Volkswagen recall, do you feel that what has been announced is satisfactory? The Department for Transport has said that it is going to be a voluntary recall. Do you think that cars should have to have the fix done to them? Do you think it would be necessary to have those vehicles tested afterwards to ensure that everything has been done? Could you say how you think the DVSA will ensure that all this happens and whether it should be done in that way?

Mr McLoughlin: We are still in the position of waiting for the full details of exactly how the recall is going to be done. They have said that they expect to start the recall in January of next year, and basically for it to take over a year to do the full recall. It is one of the largest recalls—possibly the largest recall—of vehicles overall as far as the United Kingdom is concerned.

I am not happy with the fact that it is going to take over 12 months. Some of them are going to be code changes, which I am told are relatively straightforward. Some of them may be slightly bigger, concerning pistons or mechanical changes that might be needed. I would expect all owners to get their cars updated as quickly as possible. I do not know if Paul has anything to add to that.

Paul Higgs: One of the considerations would be that whatever fix is put forward by the VA group, in the case of the approvals held by the UK for example, they would have to assure us, and we would have to retest the vehicles ourselves to make sure that the fix meets the requirement and still meets the legislative needs of Euro 5 or 6.

Q100 Mary Glendon: Do you think that everybody should have to respond to the recall?

Mr McLoughlin: I expect everybody to do that. If they did not, I would give it some consideration. I would see how it was going, and if there were signs that people were being reluctant to do it, I would give it some consideration. You usually find in a recall that people are more than happy to oblige with what the company wants to do.

Chair: I want to take any more questions about the Volkswagen issue itself, and then I want to move to some other very important issues about testing generally. Are there any further questions to do with the Volkswagen issue?

Q101 Will Quince: Secretary of State, in relation to the defeat software we are well aware that more and more on a car is now controlled by the on-board computer. Mr Willis said earlier that they will do all they can to regain trust, but the reality is that trust has been shattered, and particularly in Volkswagen. They are now asking us to trust them that no further instances of cheating have taken place. Do you agree with me that if they have nothing to hide—not just Volkswagen but all motor vehicle manufacturers—they should open up their software to regulators?

Mr McLoughlin: The truth is that what we need is to move the whole dynamic to real-world testing, so that the testing in laboratories is not seen as something which is just acceptable. We have been pressing for some time as a Government to see real-world testing. I would like to see that implemented and then something like the defeat device would no longer be applicable, because it is only applicable in a laboratory situation. I do not think we should condemn the whole industry overall because one player has been caught doing something that they should not have been doing. It will cost them very dear, and there is no doubt as to the cost to VW. It will be in the billions at the very least. We have seen already what has happened to their share price and their reputation. It is something which is not acceptable in a large company of that size. Police investigations are going on at the moment in Germany into exactly what was going on, because everybody finds it hard to believe that it was just one or two rogue engineers somewhere who were able to do this.

Q102 Stewart Malcolm McDonald: Continuing on the software issue, my concern is that the Government have reacted to events in isolation. Do you plan to take a much more comprehensive view of the regulation of software that is being used, particularly since we are moving towards driverless and more autonomous vehicles? Following on from that, I am slightly concerned that we were told by Volkswagen at the start of this hearing that the first defeat device was installed in the UK in 2008. Does that suggest that the VCA does not have the skills properly to regulate the software in motor vehicles?

Mr McLoughlin: There are a number of different points, and I will ask Paul to talk about the role of the VCA. Some of these cars were not approved by the VCA. We are in a single market, and single market conditions apply right across Europe. On the Government

reaction, obviously we are reacting to what we found out and you would expect us to react.

Q103 Stewart Malcolm McDonald: But will you have something concrete—

Mr McLoughlin: I am coming to that. Obviously we are reacting to a situation which, to be honest, is unacceptable. I would say that we have done more than react. We have been pressing for some time for real-world testing, and for testing outside the laboratory. That has certainly strengthened the case, and I expect that to be implemented a lot sooner than it looked as if it might be. From what the commissioner said to the Transport Council on Thursday, quite rapid progress is being made on that front.

Q104 Stewart Malcolm McDonald: How will you strike the balance between commercial sensitivity and the need for transparency?

Mr McLoughlin: Don't forget that there are many tests on a car in the process of bringing a new model to market. Something in the region of 50 different tests will be done on a car as to acceptability throughout the whole process, from day one of the construction design to a car actually being in the showroom. It will go through a number of tests such as the gearbox, the lighting, the inside trim, the brakes and things like that—all the safety models. I do not know if Paul wants to say a bit more about the various tests that a vehicle will go through.

Paul Higgs: In answer to the specific question, there was consideration of looking at the coding or the source code in the engine management system. If you hide a code in the engine management system calibration, it is rather like hiding a virus in a computer software program. It is extremely difficult to find. You have tens of thousands of lines of code. We would need a forensic analysis of the actual source code itself. Even then you would struggle to find where the actual defeat device was hidden. If we did a comprehensive review of all open source code, in some respects that would only be one step. It would probably be far simpler going forward to have a test programme that would effectively make it very difficult for a defeat code to work. Rather than searching for tiny amounts of code in the engine management system programme, in some respects it would be much more productive to make sure that the testing programmes going forward made it either impossible or even harder for the engineers to develop a programme in the first place.

Q105 Stewart Malcolm McDonald: I have one follow-up point. In a letter to you, Secretary of State, dated 2 October, Richard Lochhead, the Environment Secretary of the Scottish Government, suggested—indeed the public would expect—that the receipt of any financial penalties for offences that may have been committed in this scandal should have a link with the funding for restorative environmental projects. The letter references of course the fines levied as part of the LIBOR scandal as an example. Would you welcome that?

Mr McLoughlin: I will look at the letter and reply, I am sure, in great detail.

Q106 Stewart Malcolm McDonald: I was not going to mention that you had not replied, but you have shot the fox there.

Mr McLoughlin: If you said the letter was sent on 2 October, there have been quite a few other things going on in my diary in the intervening 10 days, not least going to the Transport Council. I am very sorry about that. I will obviously consider the letter in detail.

Q107 Karl McCartney: We have discussed what is basically an issue of trust so far for Mr Willis. It is obviously a PR nightmare for him. I want to get back to what is ultimately the main issue, which is the release of pollutants into the atmosphere. It might be a question for either Paul or Ian, or you might want to comment on it. If you take transport in the UK in the round but remove aircraft and ships, because they are not subject to the Kyoto protocols, and look at pollution in the UK, if these 1.2 million Volkswagen cars run as normal, as they were supposed to, compared with now, what is the difference in the pollutants percentage-wise compared with all the pollution in this country caused by vehicles?

Michael Hurwitz: There are two issues that you have raised. You are talking about the inventory, to start off with, with regard to carbon dioxide. This issue relates to NO_x—oxides of nitrogen. The differentials that were spotted in America, which go above the more stringent NO_x limits there, and caused people to take note, and frankly caused alarm, were 40 times in the real world how they performed in the laboratory. The tests are more stringent in the US. We have not yet had information from Volkswagen about the extent of the discrepancy in the UK. Ian or Paul may tell us about the details of the work they are doing to compare the Volkswagen group vehicles that the UK has approved—how they do on the laboratory tests—versus the real world.

In terms of the percentages that you were asking about, again there are two separate issues. With regard to carbon dioxide emissions, transport is around a quarter of national emissions. Road transport is about 55% of that. There are 37 million vehicles altogether on the road. Therefore the actual percentages of these specific vehicles will be very small. What is not clear is whether the defeat device affects just the performance against NO_x—nitrogen oxides—or whether it affects fuel efficiency as well. I cannot give you a specific percentage. It will be small. However, the real issue is that there is an overall discrepancy between what happens in the laboratory and real-world performance. We now recognise that the existing laboratory test is no longer fit for purpose. The general consensus is that the way to prevent that is to have it calibrated by comparison with real-world testing as well. Once we have run some tests we might be in a position to give you more data about the net cumulative impact.

Q108 Karl McCartney: I would be very grateful to receive that data. It was up to 40 times in America. Hidden away among all the data was that you said it is very small. Ultimately what you are saying is that pollution in this country has not gone up by 10% through what Volkswagen have done. In fact, it has probably gone up by less than 1% and is probably a minimal amount.

Michael Hurwitz: On this specific issue, yes.

Q109 Chair: Nevertheless it is about deception, and these particular pollutants are to do with human health and lives. That is what this is about, apart from deception and people buying vehicles with qualities—

Mr McLoughlin: While Mr McCartney is right in what he says, the simple fact is that we are trying, both as the United Kingdom and across Europe as a whole, to drive down emissions. The motor industry has been going along with us and improving their

technology. I would not want companies who have done the right thing to be put at a disadvantage by a company that is deliberately trying to mislead the rest of its customers and the public as a whole as to what its cars are or are not capable of.

Chair: That is why it is very important that we look at broader issues about the whole testing issue and how it is done. Before I go on to that, which I want to do in a moment, Mr Menzies has another question to do with the Volkswagen issue, and Mr Merriman has one too.

Q110 Mark Menzies: Secretary of State, you have announced that owners of affected vehicles will not have to pay a higher rate of vehicle excise duty. That is something all of us would welcome, but will Volkswagen be asked to compensate the Government for lost tax revenue?

Mr McLoughlin: The vehicle excise duty at the moment is mainly based on carbon emissions and not NOx emissions. We are still considering exactly what lines we may want to take in the longer term.

Q111 Mark Menzies: Can I help you out, Secretary of State? I put this point to Mr Willis earlier. I am sure the phalanx of lawyers and PR people behind him probably felt ill, but he committed—and the Committee heard it—to enter into negotiations with HMRC to ensure that our constituents and taxpayers were not out of pocket as a result of Volkswagen's lies and deception. I would urge you and the Treasury to vigorously pursue that while they still have money in their back pocket.

Mr McLoughlin: I hear what you say, Mr Menzies. One of the difficulties of coming on immediately after Mr Willis and others is that I was travelling while he was giving part of his evidence. I was therefore not able to catch up on all the evidence, which I might have done on another occasion. I appreciate that, and in no way do I mean to criticise diary commitments this week which meant that we had to do everything this afternoon. I will look very carefully at the evidence that was given.

Chair: That could potentially be a good news story, so you should be very pleased to hear that.

Q112 Huw Merriman: The US Environment Agency has the ability to fine motor manufacturers up to \$37,500 per car for breach of the Clean Air Act. Given how sophisticated and difficult it is to spot, as Mr Higgs specified, have the UK Government considered going down that road and instigating large fines as a means to disincentivise this type of practice?

Mr McLoughlin: We are in the very early stages of finding out exactly what has gone on and what legal powers may be available to us. We will obviously want to look at those. Where there have been VCA approvals, the Secretary of State may prosecute the manufacturer for providing insufficient evidence or producing information and documentation knowing that they contained a false statement. There are several areas which could be looked at. I assure you, Mr Merriman, that we will be doing exactly that.

Q113 Chair: Who is going to conduct the testing that you have announced?

Mr McLoughlin: Mr Higgs and the VCA.

Q114 Chair: You must be aware that major questions have been raised about the testing procedures generally—how they are conducted, how accurate they are and how far they are subject to distortion. Do you regard that as a serious issue?

Mr McLoughlin: I do regard that as a serious issue. I do not know whether it would be useful if Ian or Michael gave a brief history of exactly how the testing has evolved over a period of time.

Q115 Chair: We want to know what you are doing about the problems of testing. I do not want to have a history of what you have done. We already know that a lot is wrong. In fact, there have been major criticisms of the Department, because information was available certainly in 2013 and 2014, and maybe before that, about discrepancies in testing in real-life situations. DEFRA commissioned reports which were very disturbing. The Department does not seem to have acted on anything, apart from saying that you were going to try to get a better standard in Europe. What do you say about that—that nothing is being done although there is a problem? I am talking now about the general problem of testing, away from the Volkswagen issue.

Mr McLoughlin: First and foremost, we operate in a single market, and therefore we have to have quite clear assurances about how testing is done throughout the rest of Europe. A car can be tested in its own country of origin and, if that test is sufficient, it is type-approved right across Europe, so there is the issue of the single market. It is a question of making sure that we get the testing regime right, and that it is one that carries confidence. That is why we have been right to press for real-world testing and we will continue to do that. I think that momentum is now moving behind us and we will see changes made right across Europe on that whole front.

Q116 Chair: But what have you actually done to bring about change, apart from saying that you want it?

Mr McLoughlin: There have been letters to the Commission. Discussions are already taking place, both at the Industry Council, and at the Transport Council last week. I think there will be a much speedier move to real-world testing across Europe fairly shortly. That is what we have positively done. It is not just something we have done as a result of this; we have been pressing for it for some time. We also made changes to the MOT two years ago as far as NOx emissions were concerned.

Ian Yarnold: I want to come back to your question about the test cycle itself. You asked very specifically what was wrong with the test cycle and said that we had known about this for a little while. You are quite right; we have known about it for a little while. There are two different issues. There is the current cycle, which is much criticised as not being representative, so we have been working both at European level and through the United Nations in Geneva to develop a new programme—a test procedure and a new test cycle.

Separately, as the Secretary of State described, there is a completely new test which is this thing called real driving emissions. On the test cycle in the laboratory, Department for Transport engineers have been heavily involved in leading some of the working groups in Geneva to develop the test procedure and the test cycle. We have taken an active role in

contributing to that process real driving conditions for British traffic. It is not just about passenger cars but also light goods vehicles.

Quite recently we concluded a study to understand how the emissions, of carbon dioxide in this particular question, would correlate between the current test and the new test in the laboratory. By 2017, we anticipate that this new test will be implemented and it should quite significantly reduce the variation that you mentioned earlier. This is the laboratory test, and the whole new test will come in by about 2017. Then there is the completely separate additional test for real driving emissions that we are now in the process of finalising through the European Commission and the European Union. The test procedure was finalised in May, and now we are in the closing stages of agreement on stringency and implementation.

Q117 Iain Stewart: To follow on the questioning about real-world testing, we have had a briefing from the Institution of Engineering and Technology that the laboratory test conditions are beneficial for official figures by between 10% and 50%. Is that a ball park figure you would recognise?

Michael Hurwitz: That is actually quite a low estimate of the discrepancy. That is about fuel efficiency. In some of the reports you were referring to before, from 2013 and 2014, there has been an increase in the fuel efficiency discrepancy, so for a car the real miles per gallon can now be up to 35% on fuel efficiency. Some of that is to do with the fact that you cannot account in a laboratory for congestion, for how hard you brake or whether you have your air-con on or your stereo up high. Some of that is to do with the limits of the test and doing it in a laboratory, plus the optimisation strategies that the manufacturers might employ to have a good performance. That information is quite low. If you look at the work done by the International Council on Clean Transportation—the ICCT—which is the American organisation behind much of the research that led to the revelation of the Volkswagen situation, they would put a higher figure in some markets. Studies done for the Committee on Climate Change in the UK also put it at 35% on fuel efficiency. NOx is a different issue and they have different variations between test cycle and real performance.

Q118 Iain Stewart: So the data that car manufacturers have to publish by law in their advertisements are completely meaningless for the average consumer. There is an absolute imperative to move to a real-world figure that people can use to judge which type of car they want to buy.

Michael Hurwitz: If you look at the bottom of car adverts now when it quotes those figures, it talks about them being produced in laboratory conditions and that they are being used for comparison purposes.

Q119 Iain Stewart: But the average consumer will not know whether it is a very small difference or a huge difference.

Mr McLoughlin: It does say that they are in laboratory conditions. You could say that they are still a guide, so if one car is being advertised as getting 15 mpg and another one on the same test is getting 30 mpg, obviously there is a difference, and there is, as has been said, if you brake, or if you have the air-conditioning on or you drive at excessive speed. They are usually at a constant 55 mph, and I am not sure you drive very often constantly at 55 mph—but perhaps you do, Mr Stewart.

Q120 Iain Stewart: I have one final question. I accept and support the move to have these real-world figures, but the average consumer or purchaser of a motor car is not a skilled engineer. They do not know exactly what all these tests mean. What else can the Government do at UK and European level to introduce some form of clear labelling or banding criteria so that when people want to select between different types of cars, they can easily compare in the way you can do with energy efficiency on some white products? Is that something that is being looked at?

Mr McLoughlin: That is going to be a challenge, to be honest. The simple fact is that, when a company of the size and reputation of VW are found to be doing something so ridiculously wrong, it obviously puts a spotlight on the whole industry. The whole industry then has to respond to reassure the public, after VW have put right what they got wrong in the first instance. From the consumer's point of view, the consumer will want to see more of what you have just expressed and talked about, and I would agree with that. I hope that real-world testing will go some way to reassure the public as to the trust they can put in the various manufacturers.

Q121 Chair: What would you say to the criticisms that the Vehicle Certification Agency itself and the companies who carry out testing are much too close to the manufacturers to be fair and to give the public any confidence?

Mr McLoughlin: I will let Paul answer that.

Q122 Chair: These are very strong criticisms. They have been around for some time but they have now come to a head.

Paul Higgs: The VCA has been established for 25 years as an Executive agency and has been the type-approval authority for the UK for nearly 40 years. During that period we have been the regulator and we also, through the requirement, support industry. At the end of the day the UK automotive industry is quite sizeable. Across Europe, no one can actually sell any product anywhere without the approvals in place. There is somewhat of a consideration where we have to support manufacturers to ensure that they understand the standards, and that when they are tested we can be sure that they have met those standards.

We are paid, if you like, by fees and those fees are not set by the VCA or the Department. They are set by fees legislation. We are required to cover our costs in the delivery of our statutory function. In that case it is quite normal in this kind of environment within this industry, and maybe in other industries, to charge industry for those fees.

Q123 Chair: You said that you are there to support industry and then to make sure that industry accepts the standards. Is there any conflict there? Is there any way in which those two objectives could work against the public interest, in terms of emissions and safety?

Paul Higgs: We are talking about emissions at the moment, but of course type approval covers a much wider range of tests than just emissions. From our perspective, it is important that manufacturers, especially the small SMEs for example, understand what is required of them. We support them in that. We do not undertake any critique or design activity at all. We only give them an idea of what is required for them to meet the specification and standards. When they present vehicles to be tested, we can test them

thoroughly to the standards and then if they meet those standards we grant the necessary approvals.

Q124 Chair: But are there not some aspects of the tests where the manufacturers themselves carry out tests and then present information to you?

Paul Higgs: The VCA is a combined authority, which means we undertake tests as well as issuing certificates granting approval, in which case we undertake the tests at our own facilities, third-party facilities or the actual manufacturer's facilities. Before we do so, the manufacturer's facilities have to be audited to make sure that they conform to the necessary requirements, as well as third-party facilities for that matter.

Q125 Chair: Are there not certain aspects of the tests where manufacturers present information to you?

Paul Higgs: It depends on the type of test, of course.

Q126 Chair: I am asking you. Are any types of test involved where manufacturers present information to you, rather than you as an agency testing them?

Paul Higgs: Not all tests are required to be witnessed. Sometimes various data can be supplied in support of a test.

Q127 Chair: Yes, so they present information to you.

Paul Higgs: As is necessary.

Q128 Chair: There are instances, are there not, when they present information to you?

Paul Higgs: They have to present a significant amount of technical information for the specification of the vehicle or the engine or whatever is being presented.

Q129 Chair: But you do not conduct every test as an agency, do you? You certify tests that have been conducted. You might do some things yourself, but there are other companies who conduct tests and then the information is presented to you. That is correct, isn't it?

Paul Higgs: I see what you mean, yes.

Q130 Chair: That is right, isn't it?

Paul Higgs: We have—

Q131 Chair: That is right, isn't it?

Paul Higgs: We have third-party designated technical services that operate on our behalf, yes.

Q132 Chair: Yes; there are other companies that present information to you.

Paul Higgs: Yes.

Q133 Chair: In 2013, the Advertising Standards Authority ruled against Audi because they were misleading customers in terms of fuel usage. The Advertising Standards Authority instructed them to stop going forward with those false claims. What did you do in reaction to that? Did that not ring any alarm bells with the agency that there was something wrong with the way things were being certified?

Paul Higgs: On the Audi specific one, I am not aware of that. Typically—

Q134 Chair: That is an example; it was a major issue at the time. The Advertising Standards Authority ruled against Audi. It was specifically in relation to fuel usage. Misleading claims had been made, and they were ordered to stop making those claims. I am very surprised that was not known about; it was public knowledge at the time. It should have surely set alarm bells ringing about the independence of the testing process.

Paul Higgs: Again, if it was an Audi product it could well have been approved by another member state. If there had been cases of misrepresentation such as that, the authority would have had to be informed. We may not have been the authority for that particular vehicle.

Q135 Chair: Secretary of State, today we have heard information about activities that you and your Department have undertaken in relation to bringing about changes. It all sounds very leisurely to me. When are we going to see any changes?

Mr McLoughlin: I am not sure it is leisurely. This is a huge industry which employs 150,000 people. Last year, the UK produced more than 1.5 million cars. We are the third largest producer in Europe behind Germany and Spain. We built 2.5 million engines, of which over 60% were exported, so we are talking about a very important industry as far as engineering and rebalancing the economy is concerned. I am determined to work with the industry and not against the industry to make sure that these things are properly addressed and that the information which is properly required is given to the public.

When you were talking a little while ago about funding and governance, and whether there is a conflict with what the VCA do, I do not think there is a conflict at all. What is important, as Mr Higgs said, is that with all the processes, from the development of a new model to actually selling out on the forecourt, there are a number of areas and a number of rightful tests to pass during the course of that.

When you get a situation where a company of the size and reputation of VW has flouted the law—defeat devices were made illegal in 1998, and they started to reinstate those having stopped using them—there are obviously some very serious questions for that company to answer. We are in the very early stages of that investigation, but part of those questions will be answered during the course of the investigation. It is not just what we might want to do in relation to what Mr Merriman asked me a little while ago, but also in relation to what the German prosecutors will want to do.

Q136 Robert Ffello: I want to follow up on something that the Secretary of State said about MOT changes. The thought occurs to me that if owners of VW brand cars, whatever they might be, do not go through the steps and have the changes made to the software, they will be in the same sort of position as a motorist who perhaps has an exhaust gas recirculation valve and a diesel particulate filter, but gets those closed off effectively and

the computer software changed, thereby invalidating their MOT certificate. Is there not a comparable read-across for these two situations; one where an owner has actively sought for something to be done and one where an owner has actively sought not to do something?

Ian Yarnold: Are you suggesting that we could put something in the MOT that would ensure that—

Q137 Robert Ffello: Is that not the case if an owner decides to bypass their diesel particulate filter? It invalidates the MOT.

Ian Yarnold: Yes.

Mr McLoughlin: That was a change we made 15 months ago.

Ian Yarnold: Recognising that some people were removing these essential components for exhaust emissions after treatment. We made it a requirement that the vehicle would fail the MOT test and therefore you avoid people removing them.

Q138 Robert Ffello: So is there a read-across in terms of a motorist who says, “Actually, VW, I don’t want this change made to my car”?

Ian Yarnold: We would have to change the requirements of the MOT, because the current level of scrutiny in terms of the exhaust emissions of a diesel vehicle might not detect it. It then comes back to what Volkswagen are actually going to change on these vehicles and how that will impact on emissions. Until we see the detail of the technical solution we will not be able to give an opinion on the point you are raising.

Q139 Robert Ffello: Would that not all point to the fact that it would be far better if VW were made to recall these vehicles and made to get them all changed?

Mr McLoughlin: Mr Ffello, you make a point there and it is something I will reflect on. We will know what the recall is; we can get the information on how successful the recall has been. The underlying message of your questioning is that somehow people will avoid having the recall and ignore the fact of getting this put right. I think most people will want to ensure that their cars are operating legally and correctly, but if it becomes a wider problem once we start the recall I will consider it.

Q140 Robert Ffello: I am sure you are right, Secretary of State, but equally it does not stop some people deliberately taking action to make their cars invalid. I am sure the same applied to other owners.

Mr McLoughlin: I will give it some consideration, but before I start working out whether that has to be done I would like to see the exact plans for the recall. It is not going to start until January and it is going to last for 12 months.

Q141 Chair: At what date can we expect to see the changes across Europe?

Mr McLoughlin: We are pressing for that to be debated and to come to conclusions fairly quickly. Both the Industry Commissioner and the Transport Commissioner were looking for further progress on that, certainly by the end of November.

Q142 Chair: Further progress, but when will it be changed?

Mr McLoughlin: I cannot give you an exact answer on that yet, but I can assure you that we are putting a lot of effort into it.

Chair: Thank you very much.