COMMITTEE OF INQUIRY INTO EMISSION MEASUREMENTS IN THE AUTOMOTIVE SECTOR (EMIS)

HEARINGS

THURSDAY 14 JULY 2016

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**Hearing of the European Automobile Manufacturers’ Association**

(ACEA)

Mr Paul Greening, Emission & Fuels Director

Mr Erik Jonnaert, Secretary General

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**Hearing of representatives of Mitsubishi Motors Corporation**

Mr Motoyuki Kamiya, General Manager (Regulatory Affairs)

Mr Toru Hashimoto, Head Officer of the Headquarters (Development Group Headquarters)

Mr Mitsuhiko Yamashita, Executive Vice President (Development)

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**Hearing of Mr Stavros Dimas, Commissioner for the Environment from 2004 to 2010**
IN THE CHAIR: KATHLEEN VAN BREMPT

Chair. – Good morning colleagues. Welcome to our second half-day of three half-days of hearings. We will continue with car manufacturing. Today we have two very interesting guests. Second are the people from Mitsubishi, but we will start with the European Automobile Manufacturers’ Association (ACEA) and I very warmly welcome Mr Greening and Mr Jonnaert. As always, we will start with an introduction and then go on in two rounds with our members. So if everybody is seated, I give the floor to Mr Greening for a maximum of 10 minutes.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Madam Chair, thank you very much for the invitation to attend this hearing of EMIS. I would like to use a few slides just to make a few opening remarks.

Firstly, who we are: ACEA represents the 15 European-based manufacturers of cars, light commercial vehicles and heavy-duty vehicles. Our mission is on our website and I believe copies of these slides have been distributed. I apologise that the screens are a little bit small for some of the text.

Our mission is on our website. We have a clear view to define and advocate the interests of our industry. We engage in constructive dialogue with the European institutions and with other stakeholders to present our views and to give an understanding of the things which concern us to help contribute effectively to policy making, both in Europe and globally. We are a portal for knowledge on vehicle regulation activities. We communicate the importance of the industry to Europe as a whole using reliable data and information. We monitor activities that are going on which will affect the industry and we also undertake strategic reflection on how we can increasingly address the global challenges which face our industry, particularly on mobility, the environment, sustainability and the competitiveness of our industry.

Within the item at hand, for example the role of ACEA within the Commission’s RDE Working Group, we are a stakeholder, of course, in that group along with other stakeholders in associations and companies. I apologise to the International Council on Clean Transportation (ICCT). I forgot to include them in the list, but they are a well-respected organisation that also participates in the RDE activities, and there are a small number of Member States which regularly attend and give input to the RDE discussions in this group.

What we do is analyse the proposals of the Commission from other stakeholders to check the rationality of those proposals, the feasibility, whether the technology is there to achieve some of those proposals, whether they are technically sound, whether procedures can be carried out to measure emissions and, of course, to ensure that draft text is clear and unambiguous and whether it fits into the complex RDE framework. Our own contributions to the group are that we of course make many proposals to the activities under RDE, but we also carry out test programmes so that the proposals that we make are backed up and justified by hard data.

Diesels, in our view, have a strong and sustainable future. We need them for CO\textsubscript{2}, we need them for CO\textsubscript{2} post-2020 and they have a lot of good characteristics in terms of their performance and let us not forget that diesels have done excellently in reducing particle emissions down to near zero levels, both with the regulation and the technology which has been implemented.
The RDE regulation is the next challenge. We have the agreed package within the first and the second packages which the Commission adopted through comitology earlier this year. So we have challenging targets coming very soon and we have an even more challenging target starting in January 2020, which is not far after. What this means, effectively, is that all diesels will focus on the use of SCR technology. That means using this urea solution, this AdBlue fluid which is necessary to refill the vehicles. The picture there shows what we are looking for within the filler cap. You will have the diesel cap but next to it you will have a blue cap which will be where you put in the urea for the vehicle.

We started already a couple of years ago to communicate what is AdBlue because when SCR starts to come out in greater numbers – and the vehicles will accelerate into the market quite rapidly – customers will be asking themselves: What is AdBlue, why do I need to fill it, where can I get it, how much it is going to cost me and how do I refill my vehicle? So we have already started communication and have a number of conferences already to try and explain what AdBlue is and also to try and encourage other stakeholders, like fuel station operators, fuel suppliers, and AdBlue suppliers, to engage and help stimulate an AdBlue refilling infrastructure across Europe so that when the customer goes to the diesel pump next to it he will have the AdBlue pump and we believe that is the most convenient and easy way for the customer to deal with this new technology which is coming to the marketplace.

On RDE, we have two more packages still to come. The Commission has indicated that the third package will come in November of this year to the committee for vote. That will include cold-start emissions. Today the cold-start emissions are measured, but they are not included in the calculation of the emissions. That will be addressed by the inclusion of cold start in the third package. As well as NOx, which we have at the moment for RDE, RDE will also introduce particle measuring. The PEMS equipment is still being developed, but we are confident that it will be to the right level of performance for the right introduction date of that requirement.

Another key thing is how we test hybrids. Hybrids can of course be driven over an RDE test but, because some elements of the data analysis require you to take snapshots of CO₂ as the vehicle is running to make that analysis, when the hybrid runs on battery, you don’t get CO₂, so hybrids cannot be evaluated over the RDE test. We need a sensible approach because, if RDE is going to be a limitation on the introduction of hybrids, then we have got a serious problem.

We also need to have specific requirements for LCVs. Today RDE is car derived. We need to make some adaptations to RDE for LCVs because they are different, they are driven differently, they are built differently and there are many LCVs which are made in multi-stage operations, so final body builders complete the LCV. They are mainly SMEs but RDE is targeted at vehicles on the road. So these small SMEs have got no chance to address the RDE requirements. We need a sensible solution to ensure that these SMEs do remain in business.

There will be further refinements of RDE as we go along. The fourth package is one of the key ones for us. It is not the certification, but it is how RDE will fit into in-service checking procedures. The Commission has promised that by the middle of next year. That will be the key want: to define the protocols for how vehicles will be sampled in the field and checked. In some respects that will also be linked with the discussions on the Type-Approval Framework Regulation.

I have added a few more slides just to address one issue. There has been a discussion about why manufacturers have not been testing on-road emissions since 2007. Well, firstly the equipment has not been ready. Secondly, we have been waiting for a common testing protocol because we have seen, since the Volkswagen issue erupted, a number of Member States doing
testing. Some have tested following the RDE regulation and some have tested using the RDE regulation with slight differences. Some have run, for example, emissions analytics. They have run a common RDE test for all cars over the same route and the same procedures; and some have replicated the NEDC, the current test, on the road.

But when you look at all the different results, you start to see a very complex picture. On this slide I have taken a snapshot shot of some of the results. The first two vehicles have different results. The first vehicle has a lower NOx emission than the second one, but the second one gets a better ranking according to this emission analytics EQUA Index. The seventh and eighth vehicles are ranked the same but their emissions are very different under the KBA tests. The eighth and ninth vehicles have the same ranking, but again they have very different emissions under the KBA test.

On the next slide, in the top box, we have two vehicles – the same vehicle, an Alfa Romeo which is tested, according to the KBA procedure and according to the procedures which are carried out by the Government of Wallonia. They have very different emissions. I have no idea why. In the bottom box, we have two vehicles which are ranked the same, tested over the emission analytics or the ‘Commission Royal’ procedure. They are ranked the same according to emission analytics, but they have different results. And the bottom vehicle actually achieves lower emissions than the limit on the road, which is very good, but it is only ranked a C by the EQUA Index.

That is just there to show that, within all of these different results, unless we have a common protocol, then there will be a wide variety of different results according to how vehicles are tested by different authorities. If we are going to use RDE sensibly, we need that common protocol to show the performance of vehicles in real-life conditions.

I want just to finish with a couple of comments to the report which was submitted to the EMIS Committee on 4 July, and which made some quite sensible recommendations about how we move forward in improving the regime that we have for type approval. For example: a clear structure, fully agreed. We need to have a clear structure of who is responsible for different parts of the whole process. Quality standards and organisation: they talk about harmonised fees. We do not think fees are the real issue, but what is important for us is high-quality testing carried out by all the parties who are doing approval testing. Technical services should do the testing themselves. The facilities required to do approval work are substantial. There are not sufficient facilities there to allow different technical services to do independent testing. In many areas the independent testers come and witness tests and do their work in OEM labs that have the facilities, but they are there and they take the responsibility to witness testing. Clear definitions: agreed. Clear sanctions: allow the manufacturers to get on with the job and, if they do not do it right, there are sanctions. Fine, let’s move in that direction. More transparency and communication: we need that. Commercial competition: ban commercial competition. Well, in many respects, competition is good because it drives business to the best performing type approval authorities and technical services who do a good job, according to a good technical and quality standard. Commissioning of technical services: all we will want there is to ensure that there is independence of the technical services and they carry out work to a pre-defined quality.

Finally, on the conclusions of the report, WLTP and RDE are a step in the right direction: fully agreed. We now have WLTP agreed in the Regulatory Committee on 14 June. That will then apply from 17 September for new types. We have the RDE framework as well. Those are positive steps to move forward. RDE driving conditions and boundary conditions represent real drive conditions: fully agreed. That is what we are aiming for within the RDE testing procedure. Proper functioning of the emission control system, independence testing, publication of results, penalties: we agree. The results are already being published and ACEA
is preparing at the moment a website where the RDE testing carried out by OEMs will be publicly available for scrutiny.

Finally, technical experience to reduce costs to allow technical experience to be shared: we have a concern only that we should not permit anybody to run tests without having the right level of proficiency to carry out those tests.

Summary: of course we value the exchanges that we have with all of the policymakers and the stakeholders. We recognise that we have, as an industry, faced severe criticism over the last months and we are addressing those problems. We face many challenges but we do trust that we will be able to continue to contribute positively to the work of the policymakers and to do that transparently and constructively.

On that, thank you Madam Chair. I am ready to take the questions of the committee.

Gerben-Jan Gerbrandy (ALDE). – Once again, thank you, Madam Chair, and thank you, Mr Greening, for your opening remarks. First, I have one concrete question. I totally assume that you have written down your answers to the questions based on the truth, but on page 4, question 4, you say that, after the Technical Committee on Motor Vehicles on 28 October 2015, where the conformity factors were agreed, ACEA is not aware how those conformity factors were eventually agreed. I must say that I simply do not believe that. You are a top lobbyist and if this is true, you should be fired today. Within 24 hours of the meeting, I was informed in detail by several people on everything that happened in that room. I was even totally aware of the fact that France said something completely different outside the room to the media and inside the room during the meeting. So can you again explain to me what you mean by ‘ACEA is not aware how those conformity factors were eventually agreed’? Because I simply do not understand it and I have difficulties in reading the rest of your answers, knowing that this is simply not true.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The question was directed to me to give an impression if we knew how those were agreed. The Commission went into the meeting with a proposal and I think it was conformity factor 1.6 for the first step and 1.0 for the second step, with this this famous margin. ACEA had a different position, which evolved over time.

Gerben-Jan Gerbrandy (ALDE). – Please may I interrupt you, as time is running? Do you still continue to say that you were not aware of what happened in that room? Your contacts are great in every Member State, with the Commission, with all the other people who were present there, but you still say that you are not aware of how those conformity factors were agreed? I guess you have been informed in detail on what happened in that room?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, we had information of what happened in the room, but what happened before the room to allow a political decision to be reached on the numbers which are in the regulation now, we hear rumours that those were taken to quite high levels. But apart from that, we were not party to those discussions or to understand why a number of 2.1 was reached, and not 2.2 or 2.0.

Gerben-Jan Gerbrandy (ALDE). – Thank you. My other question concerns the answers on the legal unclarity. You say, in different answers, that it could be concluded that the term – this is on ‘normal use’, but it is also on ‘defeat devices’ – was clear to legislators alike. You do not make clear if you believe that the legislation was clear. You constantly refer to the
legislators. What do you believe? For industry, was the legislation clear on ‘defeat devices’, ‘normal use’, etc.?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, it was clear, because the legislation on ‘defeat device’ did not change, apart from some slight word-smithing from the Euro 3 and Euro 4 Directive, through to Euro 5 and Euro 6. As for the definition of ‘normal use’, in the early days there was always an assumption that, with the limitations of the testing procedures, normal use was related to the durability period of the vehicle, so assessing and ensuring that the emissions were met over a long period, which was initially 80 000 kilometres; it is now 160 000 kilometres. I looked very closely at the regulation last night. There is even a piece of text in the Euro 5 and 6 Regulation which says: ‘The test conditions shall be selected in such a way that they all occur under normal driving, as represented by the Type I test’. That is in the regulation at the moment.

Gerben-Jan Gerbrandy (ALDE). – So you also believe that the spirit of the law is something else? We are living in an era where social corporate responsibility is of growing importance. Do you believe that the legislator’s main objective was to have cars on the roads that do not emit a lot in a test but are emitting much more in the streets where our European citizens live? Do you believe that that was according to the spirit of the law?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, I believe the legislators had the intent that, when they do their air quality modelling studies of the contribution of transport to pollutants, vehicles would deliver a certain level of performance. That is reflected in the so-called emission factors which people use for these modelling studies, which properly understand that when you measure in a lab under control conditions, you get a result, but when you drive the car in different speed conditions and different traffic conditions, you get a different result, which is normally higher. Those have been reflected and those emission factors have been gradually reduced with the introduction of the technology.

What we have in the regulation is what we have: the test cycle is the regulation, manufacturers meet those requirements, but they also have to meet other, conflicting, requirements as well. It is a balancing act of trying to reduce emissions, and doing the reduction in emissions, but also a lot of policy has been directed toward climate change and CO₂. Balancing CO₂ and emissions is a difficult, complex task. It might get easier in the future as new technology comes along, but we have to see how we, as an industry, introduce the RDE technology and continue to make good progress on CO₂.

Gerben-Jan Gerbrandy (ALDE). – Yes, but I had to switch place. That cost me about two minutes.

Chair. – (Laughs) That is a good one, but the timing stopped. It was at 25 seconds and now we have six minutes and 25 seconds.

Gerben-Jan Gerbrandy (ALDE). – OK, this is European democracy: we count in seconds. Yes, thank you.

Pablo Zalba Bidegain (PPE). – Madam Chair, I will speak in Spanish.

Mr Greening, to continue with the discrepancy between emissions in the laboratory and real driving emissions, you state in one of your answers to question 1 that it is public knowledge
that on-the-road emissions are different to those measured in the laboratory. This is an obvious fact — it was even mentioned by this House too in a report —; they also say it is public knowledge.

I would like to know since when has it been public knowledge — in your organisation’s opinion — and if at the time Regulation (EC) No 715/2007 was adopted you were aware that on-the-road emissions were higher than emissions in the laboratory.

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Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The emission factors go back to the early Euro stages. So the fact is that the scientific body, the so-called ERMES group of different laboratories and scientists across Europe, who get together, collect test data and evaluate these emission factors, has happened since Euro 0 / Euro 1, so there has always been a difference between the performance on the road, which is what is used for air quality modelling through the emission factors, and the performance in the lab under standard laboratory tests.

1-018-0000
Pablo Zalba Bidegain (PPE). – Parliament is working at present on a Commission proposal to reform the type approval regime. I would like to know your opinion concerning this proposal.

I would like to know if, in your opinion, it also corrects the current failings in the type approval system and I would also like to know how, in your opinion, it may affect the future development of diesel engines or diesel engine cars or vehicles.

1-019-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We have two approaches. Firstly, the WLTP will address the so-called gap between the fuel economy of vehicles in the lab and the fuel economy that customers can achieve. The gap will not come to zero, but it will get much less and that is a very positive thing driven by the CO₂.

We have the RDE to address this so-called on-road performance of vehicles. I think RDE will be a very strong tool to give reliable data to policymakers, and customers, that the vehicles that they are buying perform under normal conditions on the road in a way which is appropriate to the use. The improvement of the type approval framework will be discussed within the Type Approval Regulation. There are ways in which we can move to things which are different, and perhaps better, to try and re-evaluate the way the whole framework of type approval works.

We have an opportunity now which may be useful to take, possibly instead of just continuing with more of the same. But that might require some reflection on how the type approval authorities work together, how the manufacturers and the approval authorities work together, and to focus – which is the aim of RDE of course, RDE is not necessarily a certification issue, it is more an issue which is going to be checking the performance of vehicles on the road through in-service compliance checking programmes – to place a much stronger emphasis in the future on enforcement, using RDE and using a new type approval framework to concentrate perhaps more on enforcement.

1-020-0000
Pablo Zalba Bidegain (PPE). – I would like to know when you learnt about the defeat devices scandal. Did you have any evidence, before it was made public, that devices of this kind were being used?
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We were not aware that the devices were being used. We obviously read the same reports, for example from the JRC, that are publicly available, and the first time I was aware of it was on Sunday when I read in the Detroit News of the VW scandal in the US.

Pablo Zalba Bidegain (PPE). – So, before the scandal came to light your organisation did not know anything about use of this nor did you suspect anything.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – No, there is a distinct point where the activities of ACEA cease. We are involved in activities in Brussels, for example, but, when it comes to implementing the legislation, that is the responsibility of the manufacturers and that is their job. We are not involved in those issues which are essentially competitive.

Pablo Zalba Bidegain (PPE). – Lastly, could you give a frank assessment of the degree to which current emissions legislation is complied with in the various Member States? Is there much difference?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I think the approval authorities – there are maybe five or six which regularly conduct emissions type of testing – do it with a good level of quality. One of our key aims, and also the role of the Commission Type-Approval Experts working group, is to discuss also where there might be issues of interpretation to clarify for the benefit of all authorities, so that they can operate and conduct the rules in the same way. As far as I am concerned, I think those rules are fair and work well in relation to the legislation we have today. Tomorrow will be a different picture as we have RDE, and it will be a challenge to manufacturers to do the technology work. It will also be a challenge to the authorities to deal with all of the approval work which is coming their way.

Krišjānis Kariņš (PPE). – Just as a note, I believe I am supposed to have another slot afterwards but I will give that to Mr Gieseke. Thank you very much, Mr Greening, for your comments in the opening remarks. I have a number of general questions, stepping back from the details. Could you say why, in your opinion, auto manufacturers produce and sell diesels in Europe in the passenger market and not, say, in the US?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – It is driven primarily by the CO₂ legislation, which is a challenge, and without diesel it will be extremely complicated to achieve.

Krišjānis Kariņš (PPE). – So what you are saying is that the CO₂ legislation has been driving industry?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, I think so. There was a decision by industry to invest heavily in diesel, also by the suppliers to invest heavily in the component supply for diesel technology, to address the CO₂ regulations which we faced, not forgetting that we have to comply with other legislation as well.
Krišjānis Kariņš (PPE). – So, in your view, industry has been driven by our climate goals? Diesel, I understand, is a good tool in transport because you go further per litre – you get better mileage out of it. Is that correct?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – It is one of the key technologies to help reduce CO₂ because the diesel engine itself is more efficient and it produces more miles per gallon than its equivalent petrol engine. But, of course, those are not the only technologies that we are investing in. There are lots of new technologies coming forward to help the fleet, and the manufacturers’ basket of technologies has moved forward on CO₂.

Krišjānis Kariņš (PPE). – Of course, everything is always changing – hopefully, improving – now [...] Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Also, quite a number of Member States – 17 of the EU Member States – do also provide incentives for diesel vehicles. So that is also an encouragement to be there.

Krišjānis Kariņš (PPE). – [...] incentives to customers, yes. When the last Euro 5/6 Regulation was adopted in 2007, were legislators in the European Commission – and everyone generally – aware that when you have diesel it is good for CO₂, but there is a potential problem with NOx emissions?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, we made it very clear in part of the data which we supplied that there is a trade-off between reducing one pollutant and another one, particularly on NOx-CO₂. There is a triangle: CO₂ and economy, power, and emissions. There are trade-offs to be made between all of those. So we made it quite clear that when setting the CO₂ targets you should ensure that the technologies are feasible. That is not to say that industry has ignored the law on air quality. We have done pretty well on reducing CO₂, but we have also complied with the regulations which are on paper at the moment.

Krišjānis Kariņš (PPE). – Right. At the time, was it also clear that the results that you would get on emissions in a lab setting would differ – or differ significantly – from that which you get on the road?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – That is clear. The test that is used at the moment is old – we know that, and it has now been changed with this more dynamic WLTP, which is good. We have a more dynamic test and more rigorous test settings as well for the vehicle. That will make a difference on the performance of the car; that replicates road driving more closely. It was derived from a big database of real driving from across the world because it was done in Geneva under UNECE; but it was also always appreciated that when you drive a car under what you think are normal conditions, or the Chair drives under what she thinks are normal conditions for her, those conditions will be different. There is no definition of ‘normal’, but they will be different, and they will be greater than the test results on the stand.

Krišjānis Kariņš (PPE). – Why, in your opinion, did we not introduce something like that in the test procedure sooner? Why was this not done in 2007?
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA), – It was not done because the facility, the testing procedures, did not exist. There were early developments back in 2004, if I remember rightly, when I was in the Commission, to develop PEMS for use on heavy-duty vehicles. That took quite a few years but eventually trucks had PEMS testing for in-service checking of vehicle emissions on heavy-duty vehicles, where there is space, effectively, to carry a mobile lab. The JRC has now worked for a few years on producing that type of equipment for use in cars and now, with RDE, we do have that test. It was foreseen and it was even mentioned in the Commission’s impact assessment, even though it says that certain stakeholders at the time of the discussion of Euro 5 had mentioned the need to focus on normal driving emissions. The Commission impact assessment did say quite clearly that we are not ready to introduce that. That will be something for the future.

Ismail Ertug (S&D). – Many thanks Mr Greening. You were just saying again how that worked and what part your Association played. You are no doubt aware of Regulation (EC) No 715/2007, and of Article 5(2) of the same. In your opinion, how did these exceptions come to appear in the legislation at that time?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA), – The exceptions were not included at that time because the exceptions were carried forward from the earlier directive, Euro 3 and 4. So there was no change to Article 5(2) essentially, apart from some word-smithing, as it was introduced into Regulation 715. The provisions, particularly on protection and safety, are clear because they are directed not only at the performance of certain elements within the emission control system. Let us take EGR as an example. EGR is not a constant flow of recycled gas back into the engine. You have to modulate it, according to the temperature conditions in the air box, the ambient pressure in the air box and other things.

Ismail Ertug (S&D). – Excuse me, may I interrupt you, Mr Greening, to make sure I have understood this? I would like to change once again into German.

You rightly stated that until 2007, this came from the previous regulation. I would also like to go back to the question put by Mr Gerbrandy. I think it was. How can it happen that with something that had already existed for 20 years in some legal texts, your Association – that’s what you meant: you knew nothing about it – never found out, in the case of an exception which had been in the legislation for 20 years, that car makers had also made use of these exceptions?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA), – The exception was there and it was defined in the Euro 3 and 4 Regulation with the understanding, I believe, that under certain conditions certain emission control devices would have to be adapted, but within the boundaries. Okay? So, for example, for EGR – as I mentioned before – you do change the rate of EGR depending on the engine conditions, whether the engine is running cold or whether the engine is running hot, and there are different effects which you need to protect against. There are elements within the emission control system which can be affected by very high temperature and elements which can be affected by very low temperature. There is moisture in exhaust gas which can condensate out and form ice under certain conditions.

But the running of the vehicle is also critical. It is not just designed to ensure emissions performance, it is also designed to ensure that when the customer drives the car on the road, when he puts his foot on the pedal, he gets what he wants. Even at elevated temperatures you
need to change the input of an EGR to ensure that the engine does not stumble and does not hesitate. That is related to the safe operation of the vehicle too.

Ismail Ertug (S&D). – It is a technical perspective, but I would like to come back to the fact that I cannot believe that you, as ACEA, are not aware of the fact that some defeat devices have been used by some manufacturers.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We know that now, because one manufacturer has declared that he was using it.

Ismail Ertug (S&D). – But I do not think that you were not aware before.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes, I am personally not aware of any manufacturer utilising such devices.

Ismail Ertug (S&D). – Personally, but that does not mean that another colleague within ACEA was not informed about this.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I would be very surprised if any of my colleagues within ACEA were aware of that.

Ismail Ertug (S&D). – I have another question for you, as you had a lot that you wanted to say in relation to technology. If the exhaust gas recirculation...

I would like to raise the question in English. If the exhaust gas recirculation is reduced or deactivated at low ambient temperatures, why isn’t there complementary technology added to compensate for the additional NOx emissions?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The technology is now being developed. There is this famous phrase of ‘thermal windows’, where there are accusations that the EGR is turned off at temperatures which might seem to be normal ambient temperatures, and that was mentioned in the hearing yesterday. That may well occur at double-digit temperatures because at certain speeds – I do not know the exact testing results – you might get the occasion where you have to modulate and reduce the rate of EGR to ensure the engine runs well; so there is low temperature where there are issues, there is mid-temperature, and there is what we might call 10-15 Celsius, where the EGR might be adapted according to the need of the engine at the time. That, I believe, is still within the requirements which are laid down in Article 5(2).

Mark Demesmaeker (ECR). – What do you think about that statement, particularly bearing in mind the long process involved in introducing RDE and also bearing in mind the level of ambition of the RDE conformity factors which have recently been agreed?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – It is slightly disappointing for us that the RDE regulation was developed without any cost impact assessment by the Commission. It is a significant piece of legislation and we think that would have been a useful tool to help us determine the costs and benefits of different scenarios for RDE. We supplied information at the request of the...
Commission earlier this year on what we see as being the costs and the impacts of implementing RDE in the two steps, which I summarised in our note. I do not know whether the committee has access to those documents; if not, we are happy to provide them. But that gave an indication of what our costs are, complying also with our compliance requirements, aggregating the cost across our members, and we checked very closely with the costs published for example by the ICCAT and we believe that those costs are within the same levels of....

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Mark Demesmaeker (ECR). – What do you think about the statement by the ex-Commissioner that it is very much in the interest of car manufacturers to overestimate their costs?

1-057-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Those are always questions which are raised with us, as ACEA: what we can do on behalf of the industry. The individual manufacturers can provide their own costs to policymakers, but as an association we aggregate the cost across our members. And of course there will be a range of costs – low, medium, average – and maybe one of those costs – the average or the high – might seem large compared to the views of other stakeholders, but those are what we do. We aggregate the costs across the potential of all our different members.

1-058-0000

Mark Demesmaeker (ECR). – I should like to pick up where you left off in replying to my colleague Gerbrandy. You said ‘Balancing CO₂ and emissions is very complex’. Yet we have heard from various experts during previous hearings here that all the technology is already available by means of which to attain the Euro 6 and NOₓ standards for diesel under real driving conditions without its adversely affecting CO₂ emissions: we have heard that from various experts. Speaking on behalf of your federation, why do car manufacturers not apply what is technically feasible in practice?

1-059-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – At the moment, the CO₂ has to be reduced by the engine, in the combustion. Now we have access to better and more improved emission control systems which can address the other balance, which is NOₓ and other pollutants. Technology evolves over time. The EGR will evolve to perform better as we introduce low- and high-pressure EGR routes and EGR coolers. So, as technology comes, industry is able to move forward. But I think we have been quite fair in saying that up until now, and it will be so for the foreseeable future, it still remains a challenge to balance the climate change objectives of CO₂ reduction with pollutant emissions. But things will get better. We are pretty sure.

1-060-0000

Mark Demesmaeker (ECR). – Experts say that it is already possible. Very well, in your answers to Questions 3 and 6 you say, or seem to say, that the legislation is clear enough. In saying that, you seem to be implying that there are no backdoors or grey areas, but yesterday we heard Renault, we heard VW, and they did on the contrary mention a number of legal uncertainties and grey areas, defeat devices, normal use: you have also alluded to them yourself. How then do you reconcile those answers that you give with what we heard yesterday? They contradict each other.

1-061-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I think if you look at the language as a layman you would not understand it, but in terms of the application and what it actually means, I think it is clear both from the authorities’ side and for manufacturers as well, what is prohibited. Defeat devices are prohibited. That is absolutely clear. But there is a misnomer in some of the language. It
seems very odd to say that defeat devices are permitted under certain conditions. They are not defeat devices; they are means in which you would modulate, under pre-defined conditions, the performance of the emission control system, but still lie within the rules. What we have coming now in the RDE second package – which is what we have had for trucks for several years – is more disclosure by manufacturers of their base strategy, how they modulate that strategy, and a significant documentation package to declare to the authority what they do, when they do it and why they do it. I think that is a positive step forward.

Dominique Riquet (ALDE). – My first question is this: we have found out, during the various hearings, that manufacturers were capable of detecting all test conditions, including in the RDE and the NRDE, which could have prompted them to optimise results by using technical correction factors, to put it mildly. Do you think it would make sense to use secret tests to prevent fraud or excessive optimisation, as in the US, where – it seems – such tests have already been proposed and introduced?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The so-called ‘random test’ was, I believe, one of the four options which the JRC and the Commission considered at the start of this RDE discussion: random testing using the US procedures of multi-tests; multi-test cycles with different emission limits appropriate to those tests; the RDE approach; or do nothing. The Commission chose to go along the RDE route. They did not want to go along the US approach because they were concerned that with the fixed cycle manufacturers might find a way of recognising that the car is being tested on a cycle. The US appears to be quite happy with the way in which it does that. It has those fixed cycles, but it concentrates strongly on the enforcement, and it has a random element of checking manufacturers’ declarations of conformity for each model year by randomly checking. That is an area which, possibly, Europe might need to look into as well. But I think what Europe has chosen is the RDE. This is set up on a sort of framework of boundary conditions. It is a two-hour, perhaps, test on the road, but within those boundary conditions there is also an element of randomness as well.

Dominique Riquet (ALDE). – On the subject of thermal windows: we all agree that the engine should be protected, but it is clear that the range of thermal window figures is extremely broad – not so much between car manufacturers, your members, but in comparison with some manufacturers outside the EU. The differences can range from 100% to 300%. How do you explain such large discrepancies between the thermal windows of different manufacturers when, it seems, the manufacturing and engine performance technologies are nearly identical?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – There may be different constraints on the vehicle itself: whether it's a big engine bay with lots of space for air to move around, or a small engine bay, but normally when it comes into the engine, it would increase its temperature by 4 or 5 Celsius as it gets into the air box. I'm not sure which temperature they referred to in this so-called thermal window, whether it's the ambient temperature or the air box temperature, so that's a difference. But how and why each manufacturer does that is according to his engine and emission control strategy, but there are reasons why, under certain driving conditions, which might align with what we would call a normal outside daytime temperature in Brussels in the summer, the EGR might need to be modulated.
Dominique Riquet (ALDE). – When I ask you for reasons, you simply tell me ‘there are reasons’. That’s not very precise.

I will take the following example: the lower threshold used by EU manufacturers is a minimum temperature of around 17 degrees, maybe even 10 or 12, but for some other manufacturers it is -12 degrees. How can you have such a large difference? The difference between the external temperature inside and outside the box does not explain why we should have a factor of three. It raises the question of how the thermal window figures – which are important, since they help to optimise some tests – were determined, when there are equally huge differences in the technology.

It’s as though I said to you, as a doctor, that you might have a temperature when you’re sick, but that it could vary between 40 and 45 degrees. No – at 38.2, you’re sick.

So when the same board has figures of between -12 degrees and +17 degrees, we begin to ask questions.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – This the same technology, but there may be different issues which need to be addressed. For example, at the lower temperatures, if you are putting very cold air in together with inert EGR gas, which contains a lot of moisture, at low temperatures that moisture will condensate and it will cause a problem which needs to be modulated at those low temperatures. At higher temperatures, you may have a different issue: if you are putting too much EGR gas into the engine, and you want to accelerate, you simply don’t have the power to accelerate – you have to modulate the EGR at that higher temperature. So there is a range of temperatures, and the different impacts of those operating conditions will have an impact on where the EGR is modulated. It’s not the same thing necessarily that one is choosing it to turn off at -12 and the other at 17 because of the same impact – there are different impacts on using EGR at different temperature conditions.

Paloma López Bermejo (GUE/NGL). – Madam Chair; Mr Greening, good morning and thank you for coming here today.

Your attendance is very important because it is obvious at this stage that the emissions rigging scandal does not just concern an isolated group of engineers or a few vehicle models or just one company, but that suspicion extends to the whole of the automotive industry and, furthermore, to undue influence in the devising and enforcement of rules and regulations, from the first legislative drafts to their implementation and to inspections.

I would like to highlight some points that seem inconsistent in the answers given in writing to this committee.

Firstly, you said that your discussions with the Commission only dealt with technical matters. I wonder therefore whether you can confirm for us which practices in the emissions tests – such as reducing the driving temperature range to conditions that are not representative (in northern Europe, for example), allowing tests only at specific engine temperatures or for limited periods of time or using models that are different from the standard ones that will be put on sale – are for you some of the technical recommendations made to the Commission and which the latter accepted knowing full well that these diverged from the normal use that the test rules and regulations clearly require.
My specific question is: are these technical recommendations or does this go further, clearly, than what is meant by a mere technical recommendation?

That was my first question; I can go on or wait, if you would prefer to answer that question. If not, I have two more questions for you.

1-069-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers' Association (ACEA). – Quickly then, we discuss with the Commission and other stakeholders at different levels in the RDE group; it is primarily technical discussions, but of course we have more political dialogue about how our industry is affected in terms of competitiveness and everything else. The Commission and the stakeholders and the industry do engage in trying to frame legislation which takes account of certain ways in which engines can be designed and run to ensure that they operate to meet the requirements, and which defines what are illegal activities and what are permitted activities. I think that's been very clear from the process: to look and to ensure that the legislation is written to ensure that things which are illegal are clearly defined as being illegal and should be enforced and taken care of; but also to ensure, when there is a rational and technically justified need to change the way an engine runs under certain conditions, that that is also covered in the legislation; and to try and write down in the legislation the broad conditions under which manufacturers can do that. It might be the case that the light-duty vehicle regulation has been deficient in that so far, but we think that what is being introduced now in the RDE second package, with this requirement for manufacturers to declare their strategies and why, how and when they do things, is a positive step forward and it now aligns with what we have had in trucks for some years.

1-070-0000

Paloma López Bermejo (GUE/NGL). – Therefore, based on what you are saying, I should understand that new exceptions and adaptations in the interpretation and implementation of the legislation were negotiated to protect the interests of manufacturers, knowing that these exceptions, furthermore, may result in or lead to higher real emissions than those provided for in the legislation, correct? Following the approach taken, of course.

And next, I would also like to ask since which dates and with whom in Europe – those responsible – your organisation had discussed the discrepancies between the real figures for emissions and those provided for based on the test results.

And of course, whether this issue was discussed, and when, with national authorities either by you or by the manufacturers you represent.

1-071-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers' Association (ACEA). – We started the discussions on the WLTP, and to engage in discussions on developing a more realistic lab test to replace the outdated NEDC, in about 2007 and that was done through Geneva and supported by the European Commission. It was taken forward through a mandate to work on the new test in Geneva. Similarly, we started discussions with other stakeholders and the Commission when the RDE expert group commenced in 2008. We have always tried to ensure that the legislation is clear and unambiguous. How manufacturers deal with and implement solutions to that legislation is not the business of ACEA; that is the business of the manufacturers themselves.

1-072-0000

Paloma López Bermejo (GUE/NGL). – I asked for the names of those responsible.

1-073-0000

Bas Eickhout (Verts/ALE). – Thank you, Chair, and thank you, Mr. Greening. This has been addressed a couple of times already, but for me it would be very helpful if you gave a
very clear answer. My question is: according to the legislation, when do car manufacturers have to reach the emission limits?

1-074-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – They reach the emission limits from today, according to the legislation.

1-075-0000
Bas Eickhout (Verts/ALE). – But under which circumstances?

1-076-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – According to the test cycles, which are provided in the legislation, today.

1-077-0000
Bas Eickhout (Verts/ALE). – So you keep on referring that those limits are only applying for test cycles and not for real use.

1-078-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We believe that the emission limits are related to the test procedures. We have the NEDC with limits. We have a -7°C test on an adaptation of the NEDC with different limits, so there is...

1-079-0000
Bas Eickhout (Verts/ALE). – Can you then – because you keep on referring to the testing – explain why, in the Regulation, Article 4(2) for the responsibility of manufacturers, very clearly states that ‘Manufacturers shall ensure that type approval procedures for verifying conformity of production, durability of pollution control devices and in-service conformity are met’. And ‘in-service conformity’ is even explained in Article 4(2) by saying it ‘shall be checked, in particular, for tailpipe emissions’. What does in-service conformity mean, then, for you?

1-080-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – According to the legislation that we have now, in-service conformity (ISC) means taking samples of vehicles from the road, checking that they’ve not been misused, submitting them to laboratory tests, and checking that the vehicles under the current ISC regime meet the requirements under the laboratory test. It is important to now consider that, with the introduction of RDE, that will change very significantly. ISC will effectively...

1-081-0000
Bas Eickhout (Verts/ALE). – I think in-service conformity is more clearly defined than what you are doing here. You keep on referring to test cycles, but you were in CARS 21 working groups, right?

1-082-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Not personally but I’m aware of some of the detail.

1-083-0000
Bas Eickhout (Verts/ALE). – Yeah, but you are responsible to make sure that all the information is there, right? So I will just quote for you from a Working Group document of CARS 21 – from 2011, to make sure that it’s been pretty clear for a while – saying: ‘therefore compliance with regulatory emission limits was not linked to a test cycle but to normal conditions of use of a vehicle’. Can you comment on that?

1-084-0000
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I think we’ve always been clear. We did a review of the legislation,
and I think it’s the same in the USA: limits are linked to a cycle. At the moment – at the moment – limits are linked to a cycle, that’s what we have. But what we will have tomorrow, and we have worked very hard also to ensure that this is introduced in the right way, we will have a cycle which is different. The focus will not anymore be on the lab test…

1-085-0000

Bas Eickhout (Verts/ALE). – You referred to ‘not linked to a test cycle’, you don’t go into that one, but I just recommend you then to read the documents of the CARS 21 working group which you were part of, so that you can explain to the car manufacturers how clear the law is and has been explained a couple of times even since 2011.

But I want to go now to another topic because you keep on denying this, which is painful, I would say, but OK, we see that. Then on this presentation in 2015 around the RDE discussion, you were talking in that document about a two-step approach, and that the conformity factor step 1 was needed because it’s mainly LNT technologies that can reach those conformity factors of 2.1. Can you explain that to me?

1-086-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We advocated the two-step approach firstly because we accepted 2017 was a date which will be set for RDE – that was already established in the Euro 6 legislation. That’s a very short space of time, but we introduced a proposal to ensure that what manufacturers can do within that short space of time with introducing new models, but also phasing out older models in a very short space of time, could be addressed with some progressive reduction, but always accepting that that was not the end of the story. Which is why we have, only one year and four months later, the second RDE step which will mean that emissions are met in the lab and on the road, and that will require a big change in the technology.

1-087-0000

Bas Eickhout (Verts/ALE). – (words inaudible as microphone not switched on)...the link to LNT technology in your documents. Do you mean that this later phase cannot be met by LNT technology only?

1-088-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – No, they won’t be. SCR will be the technology employed by all diesel engines; and some diesel vehicles, but particularly the bigger ones, will have to have everything on them, including LNT.

1-089-0000

Bas Eickhout (Verts/ALE). – If that’s so clear, why do half of the Euro 6 vehicles still not have SCR at all, and only have LNT technology, if you know that is all very, very clear? And I just want to stress: the SCR technology has been known since 2006, it was dealt with in the impact assessment around the Euro 6 legislation, so it was known in 2006. Now you say it’s clear that SCR is needed. Why then are still half of the current Euro 6 vehicles only equipped with LNT?

1-090-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Because that is the technology which that manufacturer employed to be compliant over a wide range of operating conditions. SCR itself, as it has now been introduced, is moving to the next generation of SCR, and that’s where the critical difference lies, that perhaps at that time some manufacturers viewed SCR as not being suitable to achieve their objectives, compliant also with reducing CO₂.

1-091-0000

Bas Eickhout (Verts/ALE). – Maybe they should not pay attention to their objectives, but to the limits that have been set in the law.
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The limits are as they are written in the regulation.

Eleonora Evi (EFDD). – I would like to go back to the issue of test cycles and ask a question about the Common Artemis Driving Cycle. Since in your answer No 10 you, too, refer to this test cycle, which was already known in the early years of this century for being a very accurate system for estimating on-road emissions, starting, obviously, with laboratory tests, because it is nevertheless a laboratory test, but in your answer No 11 you confirm what others have said, namely, the decision to wait for a different test to be developed – the WLTP – which took seven years and is still not very efficient in estimating real emissions. My question is therefore: why did you not modify the test that has been used up to now, the NEDC, which everyone knew to be inadequate, with the Common Artemis Driving Cycle, which was developed, moreover, with funding from the Commission. So why did you too not push for this test to be used?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We have recognised since the early days in 2007, when the whole project kicked off, that the NEDC was outdated and it was necessary – also because it is laid down in the CO₂ regulations – to move to a more representative test cycle, a lab based test cycle. NEDC is in the lab. WLTP will also be in the lab but that lab test will be more accurate, it will be more rigorous and it will produce a bigger challenge for manufacturers in the laboratory. The same emission limits for Euro 6 as we have today will apply to the new test, but WLTP was adopted by the regulatory committee on 14 June. That will be the lab test for measuring pollutant emissions and CO₂ to then carry forward those CO₂ measurements for the CO₂ monitoring procedures. RDE is very different. RDE is the on-road test for measuring on-road emissions, particularly NOx.

Eleonora Evi (EFDD). – That I understand, but I wanted a different answer. In any case, I shall change the subject and ask you whether, in your position paper on the Commission proposal to review the type approval and market surveillance systems, you asked for immediate and unilateral measures to be taken in cases posing a 'serious risk'. I would like you to give us a better explanation of what you mean by 'serious risk', because, from my point of view, the serious risk is already here today, given that the excessive nitrogen oxide emissions and terrible air quality we have in Europe, which are leading to the deaths of thousands of people, are already a reason and a very serious risk we have to address. Can you not work a little more precisely? First of all, what do you mean by 'serious risk' and 'unilateral and urgent measures'? For instance, do you not regard even the withdrawal of type approval as a unilateral and urgent measure?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The withdrawal of type approval is possible today for manufacturers failing in-use checking or for many different reasons of vehicle construction. But we wanted to have a definition. The Commission proposal itself does not define what is a serious risk in terms of vehicles failing to meet emission standards, failing to meet safety standards and many other different vehicle construction issues which could pose a risk to the use of that vehicle and the performance of that vehicle in terms of the legislation, which I think could be better defined, and would then permit a decision, on the basis of serious risk, as to what the right level of penalty might be.

Eleonora Evi (EFDD). – I still fail to understand how it can be that there are already cars and models on the market today which comply with these limits. So, in your view, how is it
possible that existing technologies, which, according to many witnesses who have come here to our hearing, work well, are applied to some models and clearly not to others?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I think all vehicle manufacturers are working toward improving the technology over time. The technology does not appear by magic. It depends on the work of suppliers and a lot of research goes into developing new technology, and that is phased in. Some manufacturers may have access to it slightly earlier – depending on their supply base – than others, but it is a progressive move forwards. I cannot add anything more than that. As we now have the more significant challenges of RDE, the technical content of the vehicles – particularly of diesel vehicles, but not forgetting petrol vehicles, which are also subject to RDE – the technology will be driven by the need to meet these more rigorous requirements.

Marcus Pretzell (ENF). – Thank you very much Chair, and many thanks, Mr Greening, for being here this morning. I would like to continue the discussion begun by Mr Ertug just now, with the issue of the definition of ‘defeat device’ and the exceptions in Article 5(2). As we have established, this wording is not from the 2007 directive but comes from the Euro 3 and Euro 4 legislation, which as we all know dates from 1998. My question is this: To what extent were you (perhaps not personally, but ACE) involved in this legislative process in 1998?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – No, I am sorry, it was not me personally. I joined the Commission at the tail end of the conciliation process for Euro 3 and 4, but by that time the regulation had moved on quite significantly, so I do not have the details of the involvement of my colleagues at that time.

Marcus Pretzell (ENF). – Since the wording was adopted, no further changes were made. It would be interesting for us – I would like this to be a motivating factor for our committee; Parliament’s rapporteur was Bernd Lange, who is after all still in post – perhaps it would be useful to ask him how it came about that this wording, which has clearly existed for a long time in the legislation, how it came about that it is written in this way. So my suggestion to the Chair, to discuss in the coordinators’ meeting, is that we should perhaps see if Mr Lange, who is Chair of the Committee on International Trade, can explain to us here in this committee how the wording came about. That would be my suggestion.

Seb Dance (S&D). – Mr Greening, thanks for coming this morning, it is good to see you here. Suppose, for instance, you or I were a car manufacturer, how long, typically, would it take, do you think, to develop a new model on average – and I know that there will be a lot of variation – but how long do you think you would need?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – It depends on whether that would require software updating or hardware, but anything between 36 and 48 months to do all the proofing, all the approval works.

Seb Dance (S&D). – Having that long lead-in time is essential for planning and you need to have a regulatory framework that you can trust, that you know where the next steps are coming in order to plan the next series of models.

One of the things that I have been struggling with here is that we have had a legal limit of 80 milligrams set by the institution since 2007. Yet nearly eight months ago that limit was changed in the Technical Committee on Motor Vehicles (TCMV). That was in effect changed
from 80 to well over double that figure, using the conformity factors. What would the industry have done had that TCMV meeting decided not to change the legal limit set in 2007?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Well, for example, if RDE applied immediately the limit, which it does in the second step – a conformity factor of one – then that would have posed some quite severe challenges to the manufacturers.

Firstly existing vehicles would have to be phased out pretty quickly, by 17 and the date of 19. That would compromise the planning of vehicle manufacturers in terms of the production lifetime of those vehicles, loss of investment return, complexities for future investment. And then to do all of the work so the fleet would comply, in such a short space of time.

That will be a huge challenge and it would mean, I think, that manufacturers would have to decide pretty early which models are not going to make it, and they have already had to make those decisions, I think, for the first step, and the second step now.

Seb Dance (S&D). – In effect, that decision was critical for the future planning of many of your members; it would have been impossible to carry on with some of the models originally planned.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Some models will not carry on.

Seb Dance (S&D). – You say will, but I am assuming this scenario is if the TCMV had not changed the limit. So we would have seen more.

In that sense then it would have been very important for you to have a say over this process, to have influence into where this decision was made, and I just return to the question of Mr Gerbrandy when he says, pointing to your response here, you did not know what the outcome would eventually be. It must have been a very nerve-wracking time.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We explained the concerns of our industry to the policymakers. We explained many times, or we made requests, polite requests, many times to the Commission, essentially to give us a complete RDE Regulation so we know what we need to do and to give us a reasonable amount of time to do it.

That is well known and the Commission came forward of their own volition in RDE in packages, which has led to that cause for concern for us: when do we know the final challenge that we face? So all of those were, I think, reasonable comments for us to be making to the policymakers.

Seb Dance (S&D). – Clearly in the lead-up to that decision, you – the industry – would have been aware that the technology that was currently available would not have met the limits set in 2007.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The technology on vehicles at the moment meets the requirements. The introduction of RDE poses new requirements, which was foreseen, I think, by the Commission in what it said in 715 and its impact assessment. It did not provide those new requirements then but it does so now, and those new requirements pose those new technical
challenges. And I think that was also reflected by the suppliers. The CLEPA organisation also shared our opinion that we need clarity in legislation but we need lead time to ensure that we can do all the work that is necessary.

Seb Dance (S&D). – But those technical challenges, they reflect the real-world driving scenarios that real driving emission standards are designed to meet. Therefore, when you say they can meet existing targets, you are effectively saying that is under lab conditions, which we all know do not reflect the real world. So, in effect, to meet real-world emissions – you are saying that that is currently not doable.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers' Association (ACEA). – Technology on vehicles which meet the requirements now in the lab will also perform, to a certain extent, quite well on the road. But RDE will now expand that framework to go into those areas which, we might say, are a very limited amount of EU driving, but that is what RDE is targeting and that is why the technology needs to be introduced and adapted to cover that much wider range of all possible driving events.

Seb Dance (S&D). – You must have known, obviously, that there would be a situation where the discrepancy between lab and real world would become well known and widely discussed.

In the intervening period, as technology has evolved and improved, what input have you had into the policymaking process? Is it a situation where you, in effect, wait to see what the next round of regulation looks like, or do you actively push and say, well you know what, using a combination of EGR and SCR and LNT, we can actually get to the place we need to be in real-world driving. Is that something you push forward or do you wait for the regulation?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We push to ensure that the regulation is feasible at that time and can develop over time. Europe is slightly restrained in that process. There is a lot of inertia in the decision-making process. The USA, in some respects, has it slightly better because it can move quickly, but what we want is simply to be given the regulation, to then have the time to implement the legislation, make money on that investment and then be able to talk about the next step of regulation. I think that is not an unreasonable approach to take.

Sven Schulze (PPE). – Let me add to that: it's good that you're here. I think it's good that you're here because after all you represent the whole of the car industry, or at least a large part of it. Your members also feature in your presentation. I am an engineer and I'm trying to get a handle on much of what we're listening to, and something struck me some months ago which I would now like to put to you as a question. So, we know that in future we will need AdBlue – urea – to achieve the requisite reduction in NOx. And one of the big questions – I myself drive a car with a urea tank (an AdBlue tank) – people are now asking is not only 'How far will I get with my diesel?' but 'How far will I get with the urea before I need to put more in?'

My car is a VW Sharan, with a 17-litre tank. I can drive 12 000 kilometres with this car. I've noticed big differences in the size of the tanks in different cars. Some cars – Mercedes for example – one car has a 38-litre tank, and there's an Opel Zafira which has only an 8-litre tank. If I assume that the urea that's used is always the same, that means that an Opel Zafira driver will only cover 6 000-7 000 kilometres before needing to go to the workshop for a refill. Of course I can reduce this by switching off the exhaust cleaning system – switching something off so as to use less urea.

Didn't you realise this? Didn't anyone ask about it? And my second question: Didn't the authorities realise this? Didn't they even wonder about the causal connection of how
customers could be sold cars with such a limited range, that could cover so few kilometres? Or was it not possible to see the causal connection of something being switched off?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The earlier models of SCR vehicles from different manufacturers have chosen different routes. Some require the owners to refill when the urea tank is empty and some refill at servicing intervals. So, in that respect, those vehicles that refill at servicing will have a bigger tank, but then they also have to carry bigger weight. That is an issue for the future in terms of CO₂ impact as well. Now with RDE, with all diesel vehicles using SCR, carrying a big amount of weight also for CO₂ reasons is not practical. This is why we are pushing to get this infrastructure set up. We already have that infrastructure for trucks. That has worked very well, but do not take your car and fill up with urea at the truck stop. To my knowledge, for all manufacturers the range of tank size will be in the order of 12 to 18 litres, but the vehicle itself also has requirements imposed on it by legislation that when the urea level drops, the customer is warned. If it drops to zero, there are limitations on the use of the vehicle. There are also controls regarding the dosing rate and also the consumption rate of urea.

Sven Schulze (PPE). – I will just ask my question. Every customer asks the dealer: ‘How far will it get me?’, and a customer who is told ‘I can't even get 10 000 kilometres out of it’ is very unlikely to buy the car. I think it's simple: There's a debate going on in German car magazines at the moment – with cars like Opels which have such small tanks – about what happens now if they make the thermal windows smaller and they use more AdBlue? I think that could have been a sign in recent years that something perhaps isn't right. Because we always get the answer: you couldn't tell that there was some kind of shutoff control – this only became possible with RDE. I think this was something which should have made people realise sooner. Didn't any of the authorities raise this during type-approval?

Christine Revault D'Allonnes Bonnefoy (S&D). – You said a few times that CO₂ emissions law absolutely must be complied with and that, of course, there are other laws – in particular on NOx, but also on fine particulates. That will be the second part of my question.

First of all, though, do you think that the fact that it is more difficult to achieve a conformity factor of 1 on NOx could be linked to the fact that, in the economic and financial decision-making process, it worked out to be more cost effective to focus on reducing CO₂ emissions and, in particular, to reduce fuel consumption for vehicle users? Is this the choice that was made, instead of complying with both CO₂ and NOx laws at the same time, since the law was the same?

As regards fine particulates, given that a number of manufacturers have now installed ceramic particulate filters, are you planning to encourage all manufacturers to do the same and in that way do away with the conformity factor for fine particulates given that, thanks to modern technology – and you and everyone else knows this – we no longer need a higher conformity factor?
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – To take the last question first, a DPF is effectively a sponge which collects particles. It is a mechanical device and is not interrupted by anything. So that works very effectively, and manufacturers have employed DPF technology on all diesel vehicles, trucks and cars since Euro 5. It works very well. It reduces tail-pipe mass and ultra-fine particles to the greatest possible extent. Manufacturers are now looking, through the RDE which applies to gasoline, to the use also of filters on gasoline cars – direct-injection gasoline engines. That will be where RDE makes a difference as well.

In terms of the balance between CO₂ and NOx emissions, as I mentioned before, it was unfortunate that the RDE legislation did not make any cost impact assessments of different scenarios to allow an assessment of whether a conformity of X or Y was the right one in relation to the impact on CO₂. But what I think is clear is that with RDE, the challenges for manufacturers also being able to meet the CO₂ targets will get higher. We have made progress towards achieving the 2021 95 grams target. We are moving in that direction, while also addressing the regulations on air pollutants and we will face challenges after that.

Christine Revault D’Allonnes Bonnefoy (S&D). – Sorry, my precise question – because I do not have a lot of time – is just to know whether you think you will act first on CO₂ and then on NOx, or do you consider that you should act on both at the same level and respond to your obligations under the law?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We have to meet the obligations on both requirements in the best way that we can. The CO₂ is not an individual vehicle target, it is a fleet target. The NOx is effectively a vehicle target, so it is dealt with slightly differently.

Hans-Olaf Henkel (ECR). – I would like to make a basic point. Some of the questions being asked here – as I'm sure you've noticed – have nothing to do with the remit of this committee. We need to make sure this doesn't become a general inquisition of the car industry. I would like particularly to pick up on what was said by Ms López Bermejo. She blamed the whole of the car industry for the crime, and that isn't right. So I would like to ask you for confirmation that Volkswagen's manipulation of the software was just that – manipulation of the software by Volkswagen – and that we shouldn't tar the whole of the car industry with the same brush as the black sheep, Volkswagen. Could you please confirm that once again?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I can confirm that.

Hans-Olaf Henkel (ECR). – Could you also confirm that, to the best of your knowledge, diesel technology will in the future be able to maintain the standards required of it by the legislator in terms of NOₓ as well as CO₂?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – For CO₂, the targets will be met by a combination of different technologies – petrol, gasoline, hybridisation, battery electric vehicles eventually – so those vehicles, according to their performance, will contribute to a manufacturer’s fleet compliance with CO₂. Diesel will also comply with the regulations on RDE. There will be some compromises to be made on diesels. Because of the issue of packaging bigger after-treatment equipment and accepting higher costs, some small diesel models might disappear from the marketplace and be replaced by other technologies but, in the main, diesel will remain and
will be a positive contributor to both the CO₂ and the NOx target now set by the RDE legislation.

1-128-0000

Hans-Olaf Henkel (ECR). – I have another question. Mr Schulze asked what I think was an interesting question about BlueTEC. It struck me that it would be entirely possible – if there was a manufacturer who didn't saddle drivers with a reduction in performance – to keep driving without BlueTEC. In your opinion, what can be done about this?

1-129-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Exactly. That is what we face. The legislators were fully aware that they needed to apply legislation so that, if a driver ignored the warnings to refill with AdBlue, then something would happen to his car. The same applies to trucks and the same principle applies in the US legislation. What we need to do now is to ensure that the customer has wide and easy access to AdBlue, and we think that the best way to do that is at the filling station, next to the diesel pump – to make it as easy and convenient for the customer as possible.

1-130-0000

Françoise Grossetête (PPE). – My question is closely linked to the previous one, since I think it relates to how easily consumers can get hold of diesel exhaust fluids such as AdBlue or BlueTEC. This question has already been asked, in a sense. I would like to know why urea is easier for drivers of heavy goods vehicles to get hold of than for car drivers. You said that pumps should be provided, by why are we in that situation in the first place? Do you have an explanation?

1-131-0000

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – We have taken a lot of positive steps, together with AdBlue suppliers, to address the professional truck-driving community and inform them about what SCR is and where they need to go to get it. We made a website to inform them of the locations of AdBlue refilling sites. That infrastructure has developed quite well, so at motorway filling stations you see the trucks’ diesel stop with the big white tank, which is the AdBlue. That is all set up and it works very well.

Now, with cars and LCVs moving towards SCR, they also need to have an infrastructure. Today drivers can refill by going into the filling-station shop and buying a bottle of AdBlue – one litre or five litres – but if you have a 12-litre tank, this is simply not convenient for the customer. So we are really working – and it would be very nice to get the support of policymakers – to ensure that at public filling stations there is an AdBlue pump next to the diesel pump. The customer can fill up with diesel and fill up with AdBlue at the same time.

Never take your car to the diesel truck stop because the AdBlue is pumped at a very high rate into the truck diesel tank, which of course is bigger. If you do that with your car, you are going to get it all over your trousers or your dress!

1-132-0000

Ismail Ertug (S&D). – Mr Greening, while we are on the subject, I’d like to add another question which no one has yet been able to answer properly: The emission measurements for type-approval are carried out between 20 and 3 °C. In addition, Article 3(9) of Regulation (EC) No 692/2008 states that for diesel vehicles, it must be shown that the NOx aftertreatment device reaches a sufficiently high temperature for efficient operation within 400 seconds after a cold start at −7 °C and that the exhaust gas recirculation system functions at low temperatures. I take this as meaning that it’s clearly possible to arrange things such that both can be arranged – otherwise there wouldn’t be any type-approved cars. So they both work. But why is there a need for an across-the-board shutoff to protect the engine between −7 °C and – depending on the manufacturer – +10 to +17 °C? That's what I would like to know.
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The current lab test is conducted within that range, so manufacturers have a middle range where they set the lab between 20 and 30. With the WLTP that is now a much tighter, fixed point, at 23 Celsius. But also under WLTP, you have to measure the CO$_2$ particularly and correlate it to 14 Celsius as well. On the particular text that you refer to, yes, in the regulation there is the requirement for the manufacturers to ensure that from a cold start the urea is in a state which allows the reaction of NOx in the catalyst, because urea will freeze at low temperatures. So manufacturers have to address that requirement by thermal management, heat insulation requirements to ensure that, within that 400-second period from a cold engine start, the urea is flowing properly and the NOx reaction is occurring properly in the SCR catalyst. That is a requirement for type approval and I believe that the manufacturers provide that and demonstrate that requirement correctly to the approval authorities.

Ismail Ertug (S&D). – I don't think you need to understand that if you're not an engineer. But now I have one last question.

This question I would like to raise in English. In your answer to question 10 you say that NOx emissions for a typical Euro 6c diesel passenger car are around 120 mg per km when driving at 40 km an hour in urban conditions, and that equals an exceedance of the threshold of 50%. How can you explain this, as such driving conditions, in urban environments at low speed, make up the main part of the NEDC used for type approval, and limits are usually met there?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – That is just a snapshot of these emission factors which are developed by many European scientific institutes and are published and are used as the basis for air quality modelling. So when you drive a vehicle across different speeds you have something like a low speed to a high speed, like a bathtub, and at a certain speed you can then read off an emission factor for that car. But within that speed range you also have traffic conditions like stop-and-go, congested, or free flowing traffic, and you will get different emission factors, which can be used at different speeds and conditions for input for traffic modelling. The data that they have at the moment allow them to set – at that particular speed – an emission factor for Euro 6 of 120, but that’s based on a small amount of data, more data is being collected and we do expect that emission factor to be improved with the new data.

Fredrick Federley (ALDE). – Thank you so much. It’s a bit puzzling listening to all the different hearings we have, both on the trade-off of NOx and CO$_2$. We have heard from independent experts that there is no trade-off, but when it comes to car manufacturers, we always hear that there is a trade-off. But you open up for quite a rapid change, if I may interpret you, on what we will see in the future on this issue. Also when it comes down to looking at the legislation, several Member States have said that it’s been very unclear, the legislation, but you were very explicit saying that the legislation itself is not unclear, and I thank you for that statement.

Then I come down to two basic questions. Overall on the way that we perform legislation in Europe compared to the way the same legislation is performed in the United States, the industry has different roles in taking part in it. We have more of a corporatist way of doing it in Europe, with industry close to politics, whereas they have separated them as a way of criticism for industry in the United States. Could you comment upon the advantages and disadvantages of this system? And secondly, what is your objective: to increase or decrease the gap between the test cycle emissions and real life emissions for the future? We have been focusing on what happened before, now we also have to be able to perform legislation for tomorrow to make sure this doesn’t occur again.
Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – On the US procedure, the US announces new a rulemaking procedure, and is very clear on the procedures: it conducts hearings with stakeholders, in groups and individually, and it goes through a time-defined procedure. So it listens to stakeholders, it has its own opinions. The USA has the advantage – at least the EPA, which is based just outside Detroit – that it has a lab, which employs many engineers, and one of their roles is to prove that legislation is feasible. And that’s a very good thing. But then that structured process allows them to give time to industry to make its views known, to take into account the industry’s views – doesn’t mean to say that it believes all of them or takes them into account – but it listens. And then it defines the legislation and it gives lead time for industry to comply with the legislation – very clear.

In some respects the European process is a bit more cloudy. There are many more steps involved, there are different procedures, whether it is codecision or comitology, but in defining legislation it is very clear to us that the Commission makes the proposal, the co-legislators decide it. But before the Commission makes a proposal, stakeholders like us and other stakeholders input to the Commission how we believe the legislation could help move forward and we do that openly and transparently, and we do provide a lot of data to justify the proposals that we make. That leads us now to what happens in the future. We have now agreed RDE, that will be the big challenge which manufacturers will face, and that will be the de facto design requirement for vehicles to ensure that they meet the defined requirements on the road.

Krišjānis Kariņš (PPE). – Thank you very much. So I believe that we’ve established, we’ve heard about the trade-off between CO₂ and NOx, and this was quite well known already in 2007 when European climate legislation decided to say ‘Let’s go with diesel’, perhaps in spite of, at the time, technological limitations on effectively tackling the NOx problem. But staying in the past right now, because we will move on to the future later, you said something about incentives in some 17 Member States for diesel. Could you expand more: what were these incentives, and how big an impact did that have on developing diesel as an industry?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The incentives didn’t all happen at the same time, but generally they are purchasing incentives in relation to the CO₂ tax. So obviously diesel produces less CO2, the tax rates are set to encourage customers to buy diesel. There are also differentials on the fuels in certain countries – Belgium, the Netherlands, they all have different prices for gasoline and diesel, and that encourages customers to go in that direction as well. And that has all helped to stimulate the market for diesel – as diesel has been a contributor to help manufacturers in meeting their CO₂ targets.

Krišjānis Kariņš (PPE). – But as these governments have been in various ways stimulating the purchase of diesel vehicles, either through lower taxes on registration or cheaper fuel at the fuelling station, was the awareness there that, with the existing technologies at the time, there could be or was a problem with the NOx emissions? Even as they were stimulating the diesel were they aware, do you think, in the Member States, that there is this NOx problem?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I’m not sure if they were aware at the time, because maybe the tools at that time didn’t exist to measure the emissions of vehicles on the road. But subsequent commentaries in the press and by different governments have suggested that maybe they were wrong to concentrate on CO₂ at that time. But they chose, at that time, to concentrate on the political objective which was climate change.
– And a final question. Of course, we’re all surprised and dismayed that one manufacturer, Volkswagen, had overtly broken the law, and they’re now suffering the consequences for that, but do you think that there’s a justified surprise that actually NOx emissions are much higher than we would want them to be, given everything that was known already in the early 2000s about diesel, CO₂ and NOx.

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – You can draw certain conclusions about the magnitude of the gap, but the fact that the on-road performance is different to in the lab, I think, has been fully understood for many years. That’s why we have these emission factors which take that into account in national policies which use air quality modelling. And EU as well.

Karima Delli (Verts/ALE). – Mr Greening, we will be quick since we only have three minutes left. I believe your organisation was set up in 1990-1991. What are its three biggest financial contributors?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The members. The members pay fees to run the organisation.

Karima Delli (Verts/ALE). – Who are your three biggest financial contributors? Who pays the most into the pot?

Erik Jonnaert, Secretary General, ACEA. – If I may step in here: all member companies pay the same fee.

Karima Delli (Verts/ALE). – How many seats does the Volkswagen group have on your board of directors?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – One seat.

Karima Delli (Verts/ALE). – Are you sure it’s only one seat?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes.

Karima Delli (Verts/ALE). – Mr Greening, you spent eight years at the Commission’s DG Enterprise and Industry. What issues were you in charge of?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Motorcycle emissions, heavy duty emissions, light duty vehicle emissions, and several technical dossiers included within those regulations.

Karima Delli (Verts/ALE). – You were in charge of vehicle regulation. Do you know how many ACEA members have worked for the Commission, in any sector – not only DG Enterprise, but also DG Environment, etc.?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – I’m not aware of any members of ACEA working for the European Commission.
Karima Delli (Verts/ALE). – How many ACEA members, agents of yours, have worked for national regulators, like you? You worked for a national regulator between 2004 and 2006. Do you know how many other ACEA agents have worked for national regulators?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – Yes. My CV is quite clear and transparent. I worked for the UK Government, I worked for the European Commission on secondment, I worked for the European Commission on a contract, I went back to the UK Government, and now I work for the industry.

Karima Delli (Verts/ALE). – I did read that, but I am just trying to figure out the links. I just want to know what the links are between the different organisations.

We’ll start asking real questions now. In 1990, the Commission had already decided to tackle the issue of emissions. I think you realised this, because we can no longer find the ACEA press release which said – in the 1990s – ‘no, absolutely no law’. In 2008, when the Euro 6 law was being applied, you published a press release saying that the Euro 6 law was tough but allowed time to adapt.

Nearly 10 years have passed – that’s how much time you needed. What do you think of the Euro 6 law now, and how do you explain the fact that in the national investigations – in particular, it must be said, in France – it has been shown that none of the car manufacturers are complying with the rules?

Paul Greening, Emission & Fuels Director, European Automobile Manufacturers’ Association (ACEA). – The Euro 6 legislation together with the Euro 5 was agreed in 2007. It applied in steps, so: 2008-2009 Euro 5, 2014-2015 Euro 6, giving industry sufficient time to make the investments and adjust the production to comply with that law.

Chair. – Thank you very much. That concludes this hearing. First of all, I would like to say to the members that Mr Gieseke’s suggestion is, I think, a very good one, to combine not just Mr Lange but also Mr Groote who was then the rapporteur of Euro 5 and Euro 6, because it is quite clear that the interpretation will be a very huge issue. It is already a huge issue in this committee. Whether or not it was the intent of the legislator that norms on NOx for instance would only apply in the laboratory, and not in real use, is I think a very interesting and very important question to ask.

So I think it would be good – let us see with the coordinators in what form, we cannot put MEPs on the stand, I think –to have a good dialogue with the two rapporteurs on their intentions when they drafted the legislation or amended the legislation, on loopholes or not, being clear or not – the intention. I think that is also a good addition to our work.

Let me thank Mr Greening and Mr Jonnaert for being here and giving their answers and maybe other questions will arise. As always, we do that in writing. Thank you very much for being here.

Colleagues, as usual we are running a little bit out of time and we need to take time for some very special guests now. Three distinguished guests flew over from Tokyo, at our request, to come and testify here on behalf of their part of the industry. I think it is very interesting not only to have European car manufacturers but also to get the view of a very important Japanese car manufacturer today.
So I am very glad and honoured to welcome Mr Mitsuhiko Yamashita, who is a Vice-President and a member of the Board, Mr Toru Hashimoto, Head of Research and Development, and Mr Motoyuki Kamiya, who is General Manager of the Certification and Regulation Compliance Department. Once again, I thank you all very much for accepting our invitation.

I would like to remind Members that the representatives of Mitsubishi Motors may not be in a position to answer questions related to the ongoing investigations to which they are subject in Japan. I would like you to take that into account. Secondly, I would ask you all to scrap at least one question on your list because I am going to ask you not only to stick to time but also to talk slowly because we have Japanese interpretation and that might need a relay. So please talk slowly and take your time, and that will also be the case for the answers being given. Thirdly, but not least, I ask you to be very respectful to our distinguished guests from Japan.

I now hand over the floor for approximately 10 minutes for an introduction.

1-163-0000

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Thank you, Madam Chair. Thank you for this opportunity. First of all I would like to present my company, Mitsubishi Motors Corporation, briefly, and then go on to the normalisation issue.

This is an outline of the Mitsubishi Motors Corporation (MMC). The company itself was established in 1970, but has been in the industry more than one century. Our company is relatively young but our origin is Mitsubishi Heavy Industry, and that has a longer history, more than a hundred years. So the company history is relatively short, but our background is relatively long. The number of employees is almost 30 000 people working on a global basis, and net sales are EUR 20.3 billion. All these numbers are for the fiscal year 2015. The global sales are a little over one million and the sales in the EU are 141 000. This is the size of the company at the moment.

Regarding our global footprint, we have R&D facilities in five countries, also we have vehicle and engine plant in 17 locations worldwide. Our market share on a global basis is only 1.4% and in Europe it is 0.73%. Our major market, relatively, is Southeast Asia, and in those areas we have a relatively high market share. This is our sales performance at the moment. When we look at the production volume ranking, Mitsubishi’s position is 15th. We are not such a large company as some, and this reflects our small size. However, the lineup in the EU is very representative of our vehicles, seven models, but in total we have nine models sold in this territory of Europe.

Some of the characteristics of Mitsubishi: we are pioneers in electric vehicles. In 2009 we introduced the so-called i-MiEV electric small car. This is the first mass-production EV in the world and currently the accumulated sales volume is 9%. This is the number, and compared with our market share globally of 1.4%, 9% is a good number I think. Another characteristic of our company is that we are number one PHEV (plug-in hybrid) seller in the world. This vehicle was introduced nearly two years ago, but we occupy 25% of this segment of the market.

And eventually when we look at the European CO₂ emissions we are in a very good position because of those electrified vehicles sold in this territory. So we will continue to work on this area, and thus to contribute to being a more environment-friendly company.

Lastly, I would like to explain to you what MMC did regarding the fuel economy testing issue in Japan. MMC used a different testing method from the one legally required in Japan to measure fuel economy of mini-car models sold in Japan, representing better fuel consumption
data than actual consumption for the regulatory submission and marketing. When we found this out we went public with it ourselves, within days of uncovering the facts, very quickly, I would say. But as a result, the company disappointed our customers. I believe an automotive company’s primary duty is to conform to regulations and provide reliable cars to our customers. We very much regret causing this situation to our Japanese customers.

But this issue is limited and specific to the fuel economy measurement of the mini-cars sold only in Japan. I would like to stress that this does not impact on the exhaust gas emissions which are applied to cars sold in other regions of the world, including Europe. In any case we assure you that we will continue to face the issue with sincerity and we will endeavour to prevent any recurrence. Thank you very much.

Pablo Zalba Bidegain (PPE). – Madam Chair; Mr Yamashita, thank you very much for your presentation but above all, thank you very much for coming here today and taking the trouble to travel all the way from Tokyo.

My question is: why, in your opinion, does your company sell more diesel vehicles in the European Union? Do you think it is because of a regulatory issue, a tax issue or simply a question of what consumers prefer?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – In Europe, we have a market share of 0.7%, so the amount is not that large. However, if you look at the European market, half is diesel and there are various conditions. Diesel is accepted by the market. So, therefore based on the analysis from the market in various parts of the world we are providing appropriate vehicles, so in line with this, in Europe, we are selling diesel in Europe.

Pablo Zalba Bidegain (PPE). – What do you think — and here we are going to the heart of the matter — was the motivation for the fraudulent vehicle tests at your company, Mitsubishi, in Japan?

Was it to boost sales or was it simply because those vehicles, the vehicles you were manufacturing, would not comply with the requirements for certification without these fraudulent tests? What do you believe was the reason?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Is your question related to the Japanese issue?

Pablo Zalba Bidegain (PPE). – Yes, yes, the Japanese issue, the Mitsubishi one.

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, the Japanese issue, when we measure the fuel economy there are various testing conditions, and actually resistance from the road is different in Europe, Japan and United States, and it’s a different method. We have actually adopted the method which is used in the United States, not that accepted in Japan. So therefore our testing department in Mitsubishi Motors has been using this for some time.

So further investigation would be necessary, and we are actively investigating that at the moment. So that is the biggest reason why this has happened.
Pablo Zalba Bidegain (PPE). – Thank you, and my final question: do you think that the tendency in recent years to reduce the size of engines, and especially to downsize diesel engines, has any correlation with the reduction in NOx emissions?

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Well, concerning the downsizing of the diesel engine, we are not able, we have not done that yet. So therefore we do not yet have an insight into how this will impact the NOx.

Gerben-Jan Gerbrandy (ALDE). – Thank you very much, Madam Chair, and many thanks to Mr Yamashita and his colleague for being here. It is very valuable for us to also have representatives from a non-European car manufacturer who is not involved in the internal process here, so many thanks for coming. Also, many thanks for the written questions that were pretty clear, I must say, I would like to concentrate my question on what is quite an issue during our investigation so far, the so-called ‘thermal window’. According to the tests the cars are tested between 20°C and 30°C. Many car manufacturers shut down their emission abatement technology at other temperatures, and it’s clear that the average European temperature is a temperature where most car manufacturers switch off, or at least diminish the capacity of, EGR in particular.

In your answer you state that the EGR is paused either below minus 12°C or above 56°C. That is quite an accomplishment if I compare that to your European competitors who already switch it off below 17°C. Can you explain the difference? Is your technology superior, or are there other reasons why others might switch off at other temperatures?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, this is also a technical question, so I would like to ask Mr Hashimoto to answer. You asked about the competitors, we do not know in detail, but what we’re doing at the moment, concerning the EGR control, as you said, it is from -12°C to 50-60°C. So therefore it’s very precise and EGR has been controlled very well, actually. So you circulate the exhaust and we are controlling in detail. So that’s why we’re able to accomplish this. Mr Hashimoto, could you elaborate on this a little bit?

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Yes, as Mr Yamashita has explained this is exactly how it is. And the competitors or, let’s say, the other companies: concerning the controls by the other companies, we do not know, so I am not in a position to comment.

But concerning the technology to reduce NOx, there is EGR and this is very effective in reducing NOx. However, the EGR gas, it’s not good that there’s too much EGR or too little EGR. So therefore as for the EGR amount we match it to the driving mode and we are controlling the amount of NOx out from the engine for that reason. So what would be the basis for this is that the design of the combustion chamber, in which combustion goes on, is really related to this as well.

And our technology, compared to the other companies: is it better or superior? Well, we hope that it is. But actually the fact is that from the engine-out NOx amount between minus 12°C to 50°C, we are controlling the EGR very precisely, so this is what we are doing.

Gerben-Jan Gerbrandy (ALDE). – Thank you very much. If it’s not technology that is superior then it might be your attitude towards the European consumer, because you join the
European carmakers in your analysis of the existing regulation. You do emphasise that the requirements that should be applied are the NEDC tests, which is of course a rather limited way of defining it, but you go much further than that. On the thermal window you go much further than the NEDC test forces you to go. That means that you're not switching off under conditions that are not in the NEDC test. Does that mean that you do believe that car manufacturers should try to go much further than just the lab test?

1-176-0000
**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – Concerning the objective of your question on NEDC tests, it’s apparent that this is already decided: we have to satisfy NEDC and that’s a matter of course. But further on, beyond NEDC, with how much allowance are we going to accomplish it, that would be the competence of the respective companies. The testing is a given, so therefore it is very well defined and it’s necessary not to have any interpretation issues. So it should be defined in a way which is fair. Regarding how far we’re going to take it as a car manufacturer, the way of thinking, as well as the conditions, are different, so I’m not able to respond. So on the actual NEDC tests: it’s not the case that we intentionally tried to go beyond the NEDC conditions. It’s not the case. That’s not intentional.

1-177-0000
**Toru Hashimoto, representative of Mitsubishi Motors Corporation.** – At the moment, concerning the present legislation, MMC would like to comply, for sure, and this is our mindset. And as an extension of complying with the present regulation, as we have mentioned, the range of our technology concerning the EGR control is very wide and especially as Mr Yamashita has mentioned, it is not our intention to go beyond what is required. We respect the present regulation, and so, in order to comply 100% with the present regulation, we are developing technology from that perspective.

1-178-0000
**Krišjānis Kariņš (PPE).** – Thank you very much, and of course from my side also thank you very much for finding the time and the possibility to come to this hearing. We have even had some former European Commissioners who took a very long time to decide whether they could come from very nearby. And so, as you are coming from Japan, I think it’s especially appreciated among colleagues who are currently present. Questions: what percentage of diesel vehicles do you sell in Japan, for passenger cars?

1-179-0000
**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – Well, I don’t have the sales figures for Japan, but it’s not so much. This is going to be rough figure but it’s less than 5%.

1-180-0000
**Krišjānis Kariņš (PPE).** – Thank you. In Europe, what percentage of your European sales are diesel passenger cars, roughly?

1-181-0000
**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – Well it’s under 40%, it’s 38% actually, to be exact. Compared to the overall share of the European market it’s less. It’s about 40%.

1-182-0000
**Krišjānis Kariņš (PPE).** – OK. So you sell considerably more diesel vehicles proportionally in Europe than in Japan. Why is this the case?

1-183-0000
**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – Well, we analyse the market on the basis of what kind of vehicle it is and where it is sold. We do the research in the market, and when the conditions are met, we provide the vehicle; that is our target. I think all car manufacturers are doing that. And Europe is such that, in many senses, there are factors which we need to consider. For example, if it is diesel versus gasoline, compared to the other regions actually it’s cheaper, so therefore, because of the supply, that may be the reason.
On this market there are various types of use among customers. Many customers tend to drive very long distances and at high speed: that’s the tendency that we can see in this European market. At high speed and for long distances, diesel cars are very appropriate for that purpose. These are the two points of attraction from the market viewpoint, I think. Therefore European customers welcome diesel vehicles very much. And on top of that, the countries, or the EU region, support CO\textsubscript{2} reduction measures. So that is also contributing to the expansion of the diesel car market. That’s what I believe.

Christine Revault D’Allonnes Bonnefoy (S&D). – Thank you for being here today and answering our questions.

I would like to know how you interpret an important point in Regulation (EC) No 715/2007: for you, what are ‘normal conditions’ of vehicle use?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Let me answer your question in general. The term ‘normal usage’ or ‘normal use’ is a really difficult term to define. ‘Normal’ has a different meaning in different countries, each driver might have different understanding of the word ‘normal’, and it might depend on different seasons. What is normal is a very difficult thing to define. In Europe, there are 28 member countries, and what is the common definition of ‘normal’ is hard to interpret.

However the common portion of the different entities or areas might be that this should be the definition: in testing, the definition is something like ‘most typical patterns’ and that’s reflected in the regulations or laws. That’s what I understood. From a comprehensive standpoint, there are so many conditions to be considered; however, when the most common conditions are put together, this is what should be called normal, that’s what I understood.

Christine Revault D’Allonnes Bonnefoy (S&D). – So you believe that the most common conditions of use, which should be the norm, are the normal conditions of vehicle use – that is to say, on the road – and that those are the conditions that should be observed if the law is to be complied with?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Yes, that’s what I believe.

Christine Revault D’Allonnes Bonnefoy (S&D). – Taking account of the answer you have just given me, do you think it is ‘normal’ that in the new law to be applied in 2017 the conformity factor in tests and real conditions should be not 1, but 2.1? Does that not seem contradictory to you, given your understanding of the texts? In what time frame can you offer to bring the vehicles you have on the European market to a conformity factor of 1?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, we haven’t reached a common understanding or insight about this, but I’m not sure if that it’s appropriate for to answer your question right now. However, theoretically, conformity factor 1 is very difficult to achieve. Conformity factor 1 is where the comparison between the lab test results and on-road tests should be exactly the same: the lab tests and what you call RDE, the on-road testing, under so many different conditions. So everything matches, there is no margin for errors.

Unless these factors are excluded it’s really difficult to achieve a factor of 1. So there should be some margin to be added: 1.2. or 1.3. So 1.0 is if these two results were matching each
other perfectly, i.e. that lab test results are always recreated on the road. Is it possible or not? I could ask you this question, whether it’s really possible to do.

1-190-0000

**Christine Revault D’Allonnes Bonnefoy (S&D).** – In answer number 4, you say that you use a combination of NOx, EGR and LNT anti-emissions systems for three vehicle models. Why have you not used SCR, and what about ceramic anti-emissions systems for ultra-fine particulates?

1-191-0000

**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – You are asking a different questions. This is a technical question, so Mr Hashimoto, can you answer?

1-192-0000

**Toru Hashimoto, representative of Mitsubishi Motors Corporation.** – To reduce NOx emission, first the NOx out from the engine should be reduced. That’s the key. And in order to achieve that, as was already discussed, EGR control should be further improved and evolved. That’s what is necessary.

In our company, we are now working on the EGR control improvement for the future. However, as a matter of course the method to reduce NOx emissions can be achieved not only on the engine side. Vehicle weight should be lighter; running resistance, more specifically the rolling part resistance, should be reduced, and also the aerodynamic resistance should be lowered. These are factors to contribute to the reduction of NOx.

So these technologies are the things that we are trying to develop so that we can reduce the overall amount of NOx out from the engine, the NOx produced from the engine to be reduced in the after-treatment system. So this technology, as you pointed out, the urea SCR system, that technology is, I believe, the most efficient system to reduce the NOx emissions at this point. And therefore MMC is also working on the development of the urea SCR system. Regarding ultra-fine particulate matter there is a technology called the DPF that is very commonly used technology, and then as MMC we adapt the DPF for that purpose and that’s a technology we’re using.

In any case, NOx out from engine should be minimised and the minimised NOx again recirculated and reduced and then released as N₂ or H₂O from the tailpipe, and that amount should also be minimised. That’s what we’re working on as development efforts.

1-193-0000

**Hans-Olaf Henkel (ECR).** – I too would like to thank you for coming all this way, and then for so quickly – I would like to echo the sentiments of Mr Kariņš – it’s an interesting contrast with our German colleague who was here in Brussels before. There was another matter on which you reacted much more quickly. Your President, Mr Aikawa, stepped down after just a few days; in Germany that took several months. And here is my question: As you probably know, Volkswagen is currently recalling 2.0 TDI engines for changes to be made on the ‘cheat’ software. More specifically, these are engines of the EA189 series, which are used by VW. But now I hear that between 2007 and 2012, they were also used in Mitsubishi cars (the Outlander). So the first question is: Can you guarantee that no shutoff controls were installed in these Outlander models?

1-194-0000

**Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation.** – So that’s what happened a few years ago. So Mr Hashimoto, can you answer?

1-195-0000

**Toru Hashimoto, representative of Mitsubishi Motors Corporation.** – So I do not have the detailed information but as far as we are aware we did not use defeat devices, but we have to double-check.
Hans-Olaf Henkel (ECR). – My question was in fact whether you believe that the engines delivered to you by Volkswagen had these defeat devices installed in them. Can you rule this out?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – It is a fact that we used their engines. However, whether a defeat device was used or not, or what kind of system was used, as of now, here, I do not have that information.

Hans-Olaf Henkel (ECR). – Do you not believe that your company should look into this question as a matter of urgency? After all, if Volkswagen is forced to react here in Europe, you ought to react in a similar way in Japan. Even if the original responsibility rests with Volkswagen, you as manufacturer of this model bear the ultimate responsibility to your Japanese customers. Furthermore, it cannot be ruled out that these models are also driving around in Europe. Do you not believe that you should look into the matter?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, what you are talking about, the engine you are talking about, is a thing that we are not selling in Japan in the Japanese market.

Hans-Olaf Henkel (ECR). – OK, well, I did not quite understand the answer. We have been subjecting Volkswagen to harsh criticism – myself included – on the grounds that software has been manipulated. You have become the target of criticism because you have manipulated hardware. In moral terms, I do not see that this makes any great difference. I know that you are of course unable to take up a position on this specific case based on the investigation in Japan, but I would like to know – since you are after all an expert – what other possibilities might there be to manipulate the hardware under test conditions in order to achieve good results?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – As I said before, the responsibility of the car maker is to comply with the laws and regulations and on top of that, we put our utmost effort into offering a car that is trusted by our customers.

A car is a very complex, complicated product, and there are so many people involved in the manufacturing of cars. But on any aspect of the car, there shouldn’t be any cheating or misconduct in the process, and we are right now working to try and really thoroughly review and scrutinize how we conduct our business and to maybe improve our products, and then also products we purchase from other makers are included. Overall, including all these things, we are now trying to work on reviewing the structure of the company as a whole.

Dominique Riquet (ALDE). – I would like to thank Yamashita San and his associates for having travelled so far.

I would like to ask a question that can give us a comparative perspective. Are the maximum levels of CO₂ and NOx emissions authorised or necessary for certification in Japan higher or lower than in Europe?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, there are various differences and conditions, so we cannot generalise which is higher, we are not able to say that. So let Mr Hashimoto give you a detailed explanation.
Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Concerning the absolute value of the limits, there is not too much of a big difference. However as Mr Yamashita has said, the driving mode is different, therefore concerning these limit values, whether they are stringent or whether it is quite simple, I’m not able to comment or generalise about that.

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – However, having said that, not only us, but also the other Japanese car manufacturing companies are doing the same way. But in Japan and Europe actually the limit value is quite similar. And, for example, for a diesel vehicle which is sold in Europe, we do a little bit of a tuning in Japan, and there are many cases in which vehicles are sold in Japan, after doing a little bit of a tuning of the European vehicles.

Dominique Riquet (ALDE). – Does that mean that, to comply with EU standards, you modified your vehicles – tuning, for example – to improve their performance, or that you did not have to improve your emissions performance to access the EU market? Your vehicles undergo EU tests – they meet EU conditions and standards. Do the vehicles you get certified in Japan meet EU standards or do you need to improve their performance?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. What is sold in Europe and in Japan, the spec is not completely the same. What I’m saying is that the level is about the same, that’s my understanding. Concerning the test mode, that is different, so for Japan and Europe, and the rest, we actually have to do the tests matching the respective test modes, and looking from the overall perspective we are about at equivalent levels.

Dominique Riquet (ALDE). – Without going into too much detail, what are the biggest differences between the tests in the EU and Japan?

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – In Japan the maximum speed is low. So it’s actually related to the question you asked our company earlier about the European market and the Japanese market. For the gas emission purification system (purge system) we have adopted the same system, the purge system, but because of regulation – European regulation – the durability running distance is longer. On durability tests Japan requires 80 000 km and Europe requires 160 000 km, so depending upon the vehicles there might be a load on the catalyst, and the amount of metal will be changed. That means that if it’s a long distance, and for Europe durability is sought, the amount of metals is much more and we enhance durability for some vehicles.

Paloma López Bermejo (GUE/NGL). – Madam Chair, many thanks to the representatives from Mitsubishi for taking part in this discussion and for their interest and the efforts they have made.

I have three short questions.

First of all, is the decision not to sell diesel vehicles on the American market due — or could this at least be one of the factors — to the fact that they would not be able to comply with the US legislation on emissions?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – The reason why we don’t sell diesel in America, is that, looking from the position of ‘How much will that car meet that market?’, the first disconnect is that the diesel fuel price is very high; compared to
gasoline, diesel fuel prices are higher, that’s what I recall. In addition most of the gasoline stands don’t have the facility to provide diesel. So therefore, in the market, even when the market wants diesel they are not able to buy or they will not buy, so those are the conditions that we are facing. Plus in California, in some parts of the United States, and actually in some of the eastern parts, a very stringent gas emission regulation is in place. So if you want to comply with this then there need to be measures implemented and the cost will be higher. So that may be one of the reasons. But the biggest reason may be that the diesel market share in America is about 1% at the moment, so to introduce the diesel, we do not have any reason or incentive to introduce it into the American market.

1-212-0000
Paloma López Bermejo (GUE/NGL). – My second question concerns the situation in the industry for petrol models.

Do you believe that, overall, rules and regulations, whether national or those of blocks, in the US, the EU or Japan, favour national producers?

1-213-0000
Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Which national manufacturers, which country, are you talking about?

1-214-0000
Paloma López Bermejo (GUE/NGL). – (The speaker repeats her question at Mr Yamashita’s request)

Yes, I was speaking in general, taking the issue as a whole. Do you think that the dialogue between manufacturers and authorities — irrespective of their countries — taken as a whole, has an influence, benefiting manufacturers, on the regulations that may be introduced?

1-215-0000
Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, in various regions what’s happening, especially in Europe... we heard what ACEA said earlier, so let me cite the example of safety and safety-related regulations in Japan. MLIT, the Ministry of Land, Infrastructure and Transport, finally makes a decision, so there is a lot of legislation which is triggered by MLIT. The experts have to reveal their opinion. JAMA, which is the Japanese Automotive Manufacturers’ Association, actually comments about what would be the best, and after engaging in dialogue, finally MLIT decides. Among the JAMA members are not only the car manufacturers of Japan, we have external people’s opinion too. So the Government of Japan, as well as the industry engages in dialogue and in discussion to decide on the legislation. And in the United States maybe the system is different, but then a similar type of method is adopted.

1-216-0000
Bas Eickhout (Verts/ALE). – Thank you very much and good morning. Indeed, I also want to extend a warm welcome here to this inquiry committee. In my questions I tried to just get a bit of an understanding of how you are preparing your strategy for fulfilling emission limits in the future, because if I understand you correctly, the current Mitsubishi diesels on the European markets – and granted it is not a huge amount, but they are on the European market – are mainly equipped with EGR technology and some with LNT as well. But is it EGR only or is it a combination, or is it LNT only? Could you explain, please?

1-217-0000
Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Concerning EGR, as I explained earlier, it is actually a technology to reduce the NOx out of the engine. So this is adopted in all the diesel engines. A lean NOx trap catalyst is a catalyst which reduces NOx which is emitted from the engine. And for passenger cars we are adapting both EGR and lean NOx trap catalysts; we are adopting both of these technologies.
Bas Eickhout (Verts/ALE). – But having heard some of the technical experts, they say that EGR is not enough to comply with the limit of 80 mg per km, and we even heard lately that with LNT only, you will also have difficulties. So that means you have to go to SCR technology. How are you preparing that move?

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Up to 6°C we would like to use EGR and reduce the NOx from the engine, and actually treat this with LNT. This has satisfied the regulation up to 6°C, but in the future, the gas emission limit will be difficult. For example, to meet this real drive emission (RDE), as you have pointed out, lean NOx trap catalysis is not enough. Therefore, we are considering the adoption of the urea SCR system and are in the midst of developing this at the moment.

Bas Eickhout (Verts/ALE). – But I am a bit surprised, because the regulation has been there since 2006, the limits are known, and you also said that you read the legislation that states you should comply in ‘normal use’, which means just outside on the road. SCR technology was there in 2006, so why did it take so long? It seems that you are now starting to look at that technology, although in 2006 already it was clear that you have to comply with the limits of 80 mg per km in 2016. Why does it take so long?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, development of various systems is a time-consuming effort in the first place. There is the background development and the application period for the actual car, and the SCR layout is a very difficult task and sometimes it’s necessary to change the platform itself for each vehicle. So it’s a very time-consuming effort. However, the research was started long ago, that’s what we understand, and then another factor is to what the extent we introduce the technology to meet what kind of regulations and requirement. That is always a very critical challenge and task for us, so we need to choose the most optimal system to comply with existing regulations. That’s our responsibility. Therefore the most optimised technology is what we like to always choose and utilise.

Eleonora Evi (EFDD). – I too would like to say thank you for coming. I would like to ask you a first question about answers 8 and 12, in which you state that the vehicles you test are exactly the same as those you sell, including the equipment fitted. To the best of your knowledge, are the cars prepared subsequently, in order to be able to pass the type approval tests more easily, by using one of the many tricks of the trade we have learned about during these hearings, and which have also been set out in a report by the European Environment Agency, which has identified up to eight different tricks for passing lab tests?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – I am not aware of that, I don’t know.

Eleonora Evi (EFDD). – I’d like to ask you a question regarding the proper interpretation of the regulation, because earlier on, the representative of ACEA, Mr Greening, referred to the very clear interpretation on the part of the legislators during the drafting of the regulation.

As regards the industry, however, I get the impression – we also discussed it earlier – that the interpretation of 'normal use' is not so clear. You, however, agree with me that the general sense, the general spirit, of the regulation is geared to reducing air pollution and therefore, in particular, nitrogen oxide, am I right? And therefore that efforts should be made to ensure a real reduction of emissions, using all the available technologies which, apparently, exist today?
Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – There is a phrase ‘the state of the art’. So we have to comply with the requirements of the regulations, and also internal requirements for each market. In order to meet all these requirements, it’s necessary for a car company to acquire the most optimal technology. ‘Most optimal technology’ can be defined in different ways.

However we are mass producer of passenger vehicles. And then, also, so many different types of customers buy our products, and we have to meet their requirements and we want them to use our car longer, and these are basic requirements we have to meet. In order to fulfil that, we have to make the best effort for that purpose. And in that regard we should not be reluctant to use the existing technology. That’s not what we are doing.

Chair. – Thank you. We move now to the second round of speakers. Mr Gieseke.

Jens Gieseke (PPE). – A warm welcome from my side. Thank you very much for coming to our committee and answering our questions today.

My first question is whether there is any difference in the definition of ‘defeat device’ in the Japanese legislation in comparison to the European legislation.

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – Regarding the regulation related to the defeat device, there is no difference between Europe and Japan. It is the same.

Jens Gieseke (PPE). – How do you evaluate the technical expertise, capacities and resources of the European Commission and the automotive sector concerning the drafting of new legislation?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – This is a very general question but – and this is my own opinion – Europe is a very mature society. There is a very open atmosphere among the Members in this room here to have an exchange of opinion. It is very advanced in that sense in Europe. For the car industry from various different countries and very top level manufacturers there is a very good arena for them to discuss together. The industry, society, the countries’ governments and the EU discuss together. What you here is not found in other regions. The US and Japan have very advanced car industries. However, it is one country and one industry in the US and in Japan. In that regard there is less diversity compared with Europe. So the regulation that you discuss here in Europe means that a very mature, high level can be achieved in Europe. I regard very highly your attitude in Europe to try to identify the issue first and try to find out the solution as soon as possible. It is great.

Jens Gieseke (PPE). – This morning we listened to the ACEA representative, Mr Greening. ACEA is of course participating in the working group on RDE. How does this process work in Japan? Are you, as a manufacturer, involved in the process or through your business representation? Could you just say precisely what is your influence, are you consulted and how far could you participate in the legislative process?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – As I said before, the Japanese Ministry of Land, Infrastructure and Transport (MLIT) is responsible, they are the ones who make legislation and implement laws and regulations. The Japan Automobile Manufacturers Association (JAMA) and MLIT cooperate with each other, more specifically
when drafting new regulation and laws. They ask for public comment and openly gather public comments. The Ministry tries to reflect these in new legislation. Before gathering the public comment the JAMA and MLIT work very closely to exchange information with each other to try to come up with the best possible legislation for the country and try to understand whether it is feasible or not. That is a very long process.

1-233-0000
Seb Dance (S&D). Thank you, and let me again echo the warm welcome from us to you, and gratitude that you have come to see us today.

I just wanted to pick up on one of the questions asked by my colleague Mr Gieseke on the definition of ‘defeat devices’ and the legislation in Japan and here. We are finding that there is a very large grey area between what constitutes so-called protection for engine software and cheat devices. If the regulation is the same in your view, do you see that same grey area in Japan, or in your view is the distinction between the two much clearer?

1-234-0000
Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – You call it the defeat device, but there are three parts to the activation of such a device. One is certainly the emission purging device, which completely excludes the shut-off, in all conditions. However, in the bench test it is still working, so it cannot be activated on the road. That is one thing. I do not know if we can call it defeat. That is a totally defeated device.

That is what you are calling the grey zone: engine protection or ensuring the safety of operation under certain conditions. Sometimes safety is more important than the emissions, if the car hits somebody and kills them. First we have to ensure people’s safety. That is the priority and not to burn your car. How do you interpret that part? Without those conditions, but always that the device is activated and functioning. That is a very clear, perfect situation.

Which do you call the defeat; is it the first or the latter? The first one is out of the question, but in the middle it depends on each car manufacturer under what condition that is activated or deactivated. That is what each maker can decide. That maybe corresponds to what you call the grey zone.

What about Japan? I think we have the same concept in Japan. Perfectly shutting out is prohibited. However, at what point the zone is to protect the safety of the car really depends on the discretion of each carmaker. That is also the same as in Europe.

1-235-0000
Seb Dance (S&D). – That is quite a clear opinion you have expressed on where the grey area is and isn’t, and I appreciate that. Thank you. In terms of what we have heard previously from the European manufacturing association on diesel as one of the key ways in which the European fleet has reduced its CO₂, I am very interested in the figures for Japan. I know you mentioned speed earlier. I wonder if that is one of the factors, but could you tell us why the CO₂ emissions of the Japanese fleet are roughly 16% lower than in Europe, where of course the decision in Japan has not been to invest heavily in diesel but instead in petrol technology?

We heard previously from Deutsche Umwelthilfe – and for the benefit of the interpreters that is the German environmental NGO – and they said that for the same additional investment you get for diesel vehicles, you could put that investment into petrol vehicles and actually get the same results in terms of CO₂, without of course the corresponding air quality issues.

Is that your view, and what would be the explanation in your view for the reduction in CO₂ seen in Japan compared with European levels, given that there is not the same focus on diesel?
Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – The Japanese regulation calls for the top run system. The fuel economy incentive is based on the top run system, depending on the different weight of car and the best car to be chosen or to be expected, trying to identify the best point. To what extent can this be achieved? That is the target the government shows us and draws the line for the limit of the regulation. So we have to do better, to go beyond that line. However, if very good fuel economy is shown, then that car is given the incentive and gets preferential tax treatment, that is the incentive the Japanese Government gives us.

Sven Schulze (PPE). – My question concerns type approval. We heard from Volkswagen yesterday that Volkswagen has its vehicle types approved in different European countries, one of the reasons being that there is not sufficient capacity to have its many different vehicles approved in only one country. You said in your presentation that you have seven different types in Europe, and according to my research you have the type approvals carried out in two countries, Belgium and Germany. Why do you have these cars approved in two countries, and in these two particular countries? That is my first question.

Toru Hashimoto, representative of Mitsubishi Motors Corporation. – First of all, concerning Germany and our department responsible for type approval in Germany, as an MMC representative together with the authority, there is a department in Germany which takes care of type approvals. Therefore we are actually using a type approval organisation in Germany, and another in Belgium. As regards that type approval organisation, our R&D in Japan is near Nagoya. The Belgian type approval authority office is also in Nagoya. So, like the witness tests, there is a geographical advantage. Therefore we are using the technical service of the Belgian company.

Sven Schulze (PPE). – In fact my question centred rather on why, with only a few vehicles, you do not use only one country – Germany or Belgium: however, it is good that you use two countries because I would also be interested to know whether you have found any difference between the German and Belgian authorities with regard to the rules governing type approval: have you ever noticed that one or the other country interprets the type approval legislation differently?

Motoyuki Kamiya, representative of Mitsubishi Motors Corporation. – First of all, concerning the basic objective of type approval, there is no difference in the legislation. As you have mentioned, there might be a little difference in some of the detail. Concerning the interpretation of the legislation, whether it be Belgium or Germany, we actually reflected this in the development.

Christine Revault D’Allonnes Bonnefoy (S&D). – In Japan, CO₂ emissions are far lower than in Europe. I would like to know if that is because there are more electric vehicles and, in particular, more hybrid vehicles. What is the proportion of hybrid vehicles? Does that have an effect on the levels of CO₂ emissions in your country?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – The Japanese market is such that, over one year, about 6 million vehicles are sold in the Japanese market. That is a very rough figure, but 40% of this is accounted for by the mini-car or the K-car, as we call it. This is a very small-sized genre of vehicle that we drive. Of the remaining 60%, half of this – 30% – is accounted for by hybrid vehicles. There is a range from full hybrid to mild hybrid. There are various types of hybrid. 30-40% is hybrid. The rest would be the
ordinary gasoline engine, plus a small fraction of diesel engines. There are very few diesels. So that is the composition.

Christine Revault D’Allonnes Bonnefoy (S&D). – Just one last question; I don’t know if you will answer, but I will ask anyway: strategically, do you think that it would be better for the EU market to continue investing heavily in research and development to meet the CO₂, nitrogen oxide, fine and ultra-fine particulate requirements in real conditions, or would it be better to develop other kinds of vehicle with different engines and, in particular, electric or biogas vehicles, etc.? From a strategic point of view, since this Volkswagen scandal has shaken Europe quite profoundly, what would be the best thing to do?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – It is very difficult to respond as a representative of Mitsubishi Motors, but let me give you my personal opinion. This is my personal opinion. We need to make emission gas, like NOx, cleaner as a matter of course. In order to do that, what kind of technology will be used? There are certain limits to internal combustion. Principle-wise, there is a threshold for CO₂ and fuel economy alike.

If you want to take it further, the vehicle you have to have is a plug-in hybrid PHEV or EV. You have to make these kinds of vehicles. Regarding the full EV, there are a lot of different types of EV, but a vehicle that runs on electricity would be the final objective. That is what I strongly believe. However, a lot of discussion is necessary. Not only are we talking about car manufacturers, but also policymakers and legislation makers, and also listening to the voices of the customers. Society also has to agree and we have to go forward. Somebody has to lead this. As I have shown here earlier, at Mitsubishi Motors we have been focusing on electric vehicles (EV) and therefore we would like to proceed forward in the direction of EV and PHEV technology.

Mark Demesmaeker (ECR). – May I too welcome you? I shall speak slowly in Dutch. I should like to return briefly to an answer that you gave to a colleague a short time ago. You do not sell diesel cars on the American market, and you mentioned market conditions, but you also explicitly referred to California, where requirements are far more stringent still, as a reason not to sell diesel cars in the USA. In California, of course, society has opted for better air quality. Yesterday we heard that Volkswagen does sell diesel cars on the American market, and both in its written answers and verbally, it has said ‘yes, we adjust our technology or we optimise our diesel technology in accordance with the legislative framework’. Why do you not likewise take up this challenge? Or are you unable or unwilling to take up the gauntlet in order to comply with those very strict standards, to perform even better? Why do you not explicitly try to do the same?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – All over the world, actually we are the 15th in terms of production volume. Among the well-known car manufacturers, well, there are over 30, I do not know how you define which is well known. There are a lot of car manufacturers in the world. The number introducing diesel vehicles in America is limited, including Volkswagen. The reason for that is because in California legislation is stringent. That is not the only reason. As I mentioned earlier, the fuel price is high and also the facility for producing diesel fuel is not well established. So even regardless of the vehicle’s emissions, it is actually not going to sell well. Therefore a car manufacturer who introduces that type of vehicle has to be very confident about the technology or to have already developed that type of technology in other parts of the world. People with confidence will go where the confident companies go. So with this new technology, from a business perspective it would be very difficult to go into that market. That is what I feel.
Mark Demesmaeker (ECR). – But of course it would give you good prospects for the future if you tried to comply with those stricter requirements.

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Concerning diesel and CO₂ emissions, it is actually lower but it has to be very much lower in terms of emissions so it is not going to be a motivation. What do you think?

Krišjānis Kariņš (PPE). – Thank you very much. I have been listening to the very interesting debate. I want to come to a question on the type approval process in Japan versus the EU. So, in the EU we have up-to-date laboratory tests, and based upon these laboratory tests vehicles are allowed or not allowed on the road. To date, is this the same in Japan or has Japan had real-world tests also in the process?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – Well, concerning how tests are being conducted in Japan, basically it is quite similar. Concerning the real world, or let us say, concerning the resistance from the road, actually you do not know unless you run a vehicle. So we carry out the load test on the road, and we put in the conditions later and we do the laboratory tests. So we have that in common with the EU. In the United States, Japan and Europe, as with the WLTP, the testing method is quite different and there is a basis as it were to ‘commonise’ that. So it is not so different, also in terms of type approval. That is my understanding.

Krišjānis Kariņš (PPE). – So if the testing procedure in Japan and Europe, and even in the US, is the same, but the NOx emissions turn out to be a problem in Europe, would it then be the case that the reason is that in Europe we have had the big emphasis on CO₂ reduction and diesel engines, and that is really the only difference? We are wrong to be outraged that we have not had road tests, because no one has road tests to date. But we, in a sense, have maybe created a little bit of a problem by going the diesel route, because we had the NOx emissions, in a sense, before we had the proper tests in place to make sure that it was actually healthy for the public.

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – In general, applying diesel is not a bad thing. Diesel per se shows a very good benefit in this region. In terms of fuel cost, diesel is superior, or cheaper, and diesel was developed in Europe in the first place, so that it is very well received by the consumers and, with regard to CO₂ emissions, as I said the difference is small.

However, diesel still emits a smaller amount of CO₂ than a gasoline car, so in the environmentally oriented region which is Europe, I think the technology can grow well and, even with the NOx problem, there are methods of resolving that issue. Therefore, you do not have to eliminate the possibility of diesel. We just have to take proper measures to handle the NOx issue. That is an attitude issue for each car manufacturer.

Fredrick Federley (ALDE). – First of all, thank you so much for coming here all the way from Japan. It means so much for the committee and several colleagues have mentioned that. I think you have been very straightforward in your answers to us. I had ten questions lined up and you have already answered all of them, so I will rest my case. I just wanted to thank you for being here today and for answering so straightforwardly.

Bas Eickhout (Verts/ALE). – Well, I also have to say that I think most of the questions have already been answered, so maybe I can just ask one question on the Guardian article on
the basis of what emission analytics has been found in a Mitsubishi vehicle which gave higher NOx emissions. In your answers you say that you do not know exactly how those tests were performed so you cannot answer those questions. However, to my mind, it would be interesting from your perspective to hear from emission analytics what they have been doing and how they came to these high-emission results of a vehicle of your company. I could imagine that you have been in contact with emission analytics since then and, if so, what kind of additional information have you found so that you can address those high emissions?

Mitsuhiko Yamashita, representative of Mitsubishi Motors Corporation. – As you said, we do not know the details of the test conditions. We have not been able to contact them on what kind of conditions they used, so we do not know. However, it is true that that it is a very interesting topic from the technology standpoint: how our system shows the bad results, under what conditions, and that is what we would like to understand, it is very interesting. There are many factors involved, such as driving style, the weather, road surface conditions. If they are the ones we already know, we can deal with that properly. However, if there is any surprising condition that we were not aware of we have to conduct further research on that. If it is possible to approach the analyst, I would like to do that. So far, we have not been able to do so.

Chair. – I speak, I think, on behalf of all the committee members when I say thank you very much for being here. I echo what Mr Federley said: it was not only very interesting, but very open-minded on some of the questions, and that is helpful because we are in the middle of investigating what went wrong, especially at the level of the administration, the Commission and the Member States.

It is good to have an insight from another continent with another set of laws. We live in a globalised world and you sell cars on the European market and globally, so thank you for coming all this way and for being helpful to us. I hope you have some time to visit Brussels or Antwerp, or other lovely cities – such as Stockholm. We still have the afternoon, and next week we have a mission to the Joint Research Centre. Then we are all ready for a bit of a holiday. I hope the same goes for you and thank you again.

(The hearing was suspended at 12.25 and resumed at 15.10)
Colleagues, I presume we may start the last hearing of the first half of our work and I am very honoured, and glad, that next to me is the first of many-to-come Commissioners or former Commissioners. So we start now more on the political part of our work and we will have a lot of former Commissioners and sitting Commissioners coming up now.

Mr Dimas, you are the first, and you were also the first to enthusiastically say yes, you would come to our committee, and we fully appreciate that. We think we have said that before. It is very important that former Commissioners also take responsibility for the policies they have put in place at a European level.

Mr Dimas was European Commissioner for the Environment between 2004 and 2010 and that is a very crucial period since during that time the Euro 5 and Euro 6 legislation – that is the legislation we are talking about constantly in this committee – but also the Regulation on emission performance for new passenger cars, for instance, were set up during his time in office.

So we are very much looking forward to this hearing, and I give you first the floor, Mr Dimas, to give an introduction of a maximum 10 minutes and then we go to our committee members for the questions, and the answers of course. The floor is yours.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Madam Chair, I have a small disagreement about ‘enthusiastically’. You do not usually go to a committee of inquiry with enthusiasm; you feel obliged to go but still I am glad that I see some former colleagues with whom we worked, promoting the environment back in the years 2004-2010 when I was honoured to be Commissioner for the environment, but also for climate change and also for civil protection.

Really I would have preferred rather not to have a committee of inquiry, if we did not have this so-called scandal, or if these discrepancies between real-world emissions and those in laboratories were non-existent, and of course not having these defeat devices. Anyway, I hope that I shall be of some help in relation to some of the matters before this committee. Of course it is now more than a decade ago so I ask for your understanding as my recollection may not always be comprehensive.

Let me start by reminding everyone, as I said previously, that my portfolio, because it also had climate change, had burning issues on both sides: climate and environment. Air pollution and its impact on human health are priority issues for the European Union and this certainly was the case in my years as Commissioner.

In 2005 we put forward a thematic strategy on air pollution in the context of the implementation of the 6th Environmental Action Programme. This strategy was a milestone in setting health and environmental objectives and emission reduction targets. During my mandate as Commissioner we also consolidated and adopted the Ambient Air Quality Directive with today’s air quality standards. These also covered pollutants such as particulate matter (PM$_{10}$ as well as PM$_{2.5}$ and also nitrogen dioxide (NO$_2$)).

Looking back, however, it is worth recalling that in the mid-2000s the primary concern was about bringing down emissions of PM, which had been classified by the World Health Organization as a Group 1 carcinogen and the ‘deadliest’ form of air pollution. In fact, PM
pollution still is the primary cause of environmental premature deaths both in Europe and globally.

Therefore, our policy was geared towards addressing the high concentrations of particulate matter (PM$_{10}$) and ground level ozone (O$_3$) in our Member States.

We fully understood the fact that one of the main ways to address these was through source-specific legislation. This was clear already since the 1970s, and the EU has had emission standards for vehicles since those days. In the early 2000s it became clear that we also had to look at other sources to find an optimal strategy, hence the Clean Air For Europe programme which looked at all source categories and still, road vehicles played an important role among these.

Therefore, I instructed my services to work closely with the then DG Enterprise on the set-up of the next stage of vehicle emission standards – the so-called Euro 5 proposal – which later became known as Euro 5/Euro 6, as the co-legislators introduced also the Euro 6 standards.

To this end, we carried out the study underpinning the impact assessment accompanying the Euro 5 proposal. DG Enterprise, today DG Growth, as the lead service on this issue, prepared the impact assessment based on our preparatory work.

The impact assessment accompanying the Euro 5 proposal – which came out at the end of 2005 – acknowledged that air quality had not improved at the rate that would have been expected from the implementation of previous emission reductions standards.

At the time of preparing the Euro 5 proposal, our understanding was that PM, NO$_x$ and CO$_2$ emissions measured on a laboratory test cycle did not reflect the emissions of vehicles in real-driving conditions. As a consequence, the Commission proposal contained a provision to keep the test procedure under review.

We did not ask for a revision of the test at that time because to have done so would have meant significant delays in bringing in the Euro 5 standard. And this would have been unacceptable, as the key objective was to mandate the use of particulate filters for PM emissions.

As I mentioned before, reducing PM emissions was our top priority, so a choice had to be made: first the new standards are adopted, then we review the test-cycle to ensure it better reflects the real driving conditions of our everyday life.

Which is exactly what we did. As soon as the Euro 5/6 regulation was adopted in 2007, my services immediately asked the Joint Research Centre (JRC) to carry out research to help identify any further action required to address real-world emissions of vehicles, and in particular:

– to gain more knowledge of different driving situations of road vehicles encountered in real-world driving, the associated emission levels of pollutants and of fuel consumption, with a focus on passenger cars;

– to contribute to the development of criteria for the testing of light duty vehicles using Portable Emission Measurements Systems (PEMS).

The JRC reported back to my services in December 2007, indicating that any test cycle, including also the one used in Europe – the so-called New European Driving Cycle, although it was not really new, it goes back to the 1970s – represented poorly vehicle emissions during
real use. They had compared the European cycle with the ones used in the United States and in Japan.

I just note that the test cycle was the only legal means to measure the emissions and the fuel consumption under the existing rules at that time. Now, the findings confirmed the observed high NO\textsubscript{x} emissions for diesel vehicles in real-world driving, and also that the real CO\textsubscript{2} emissions were different from the ones measured in the standard test procedure.

The JRC also concluded that PEMS testing was a solid base to develop a new regulatory tool as an alternative or additional option to overcome the off-cycle emissions problems, while recognising that further evaluation should be carried out.

As soon as we had these results, my services were clear in their communication with DG Enterprise that the vehicle testing framework needed to be changed, and the procedure for revising the test – as provided for in the Euro 5/6 legislation – should be launched.

You will perhaps recall that the proposal to revise the test-cycle had been included in the mid-term review of the CARS 21 process, and that broad agreement had been reached to pursue this revision at international level – in the United Nations Economic Commission for Europe. At the same time, there was a clear commitment by the Commission that, should the international process be too slow, the Commission would act to revise the test cycle in Europe. This was confirmed in a Commission Communication from 2008.

In parallel, on the environmental side we were in the middle of negotiations on new carbon dioxide standards for cars, which was another top priority.

The carbon dioxide standards for cars that the EU agreed in 2008 are a big step forward compared to the flawed voluntary commitment of the industry. It has taken carbon dioxide from a corporate social responsibility issue to a bottom-line issue and demonstrated that emissions can be cut more quickly and cheaply than previously thought possible. Before the regulation the average annual reduction in 12 years (1995-2007) was 1.4% and in the three years after (2008-2010) the average reduction was 3.7%. This was a very important change of pace.

I hope this short introduction can help you better understand the status of this issue within the Commission during my time as Environment Commissioner. Thank you for your attention.

Chair. – Thank you very much, Mr Dimas for this comprehensive introduction and I immediately go to the rapporteurs. Mr Gerbrandy.

Gerben-Jan Gerbrandy (ALDE). – Thank you, Madam Chair, and thank you, former Commissioner Dimas for being here. It is good to see you again in this seat.

Listening to previous hearings here in this House, and also looking at the written answers that you provided us with, it becomes clear to me that there was a huge fight within the Commission in the years 2005, 2006 and 2007 about car legislation; not only over CO2 but also over NOx and PM and others. During the hearing two weeks ago, or Strasbourg last week, we even understood that Commissioner Verheugen was so upset with the end result that he even disowned the proposal when it was published.

That is quite something, so I would like to ask you to reflect on that a bit, but I would like to focus on the fact that already in those days it was clear that the test cycle, the so-called NEDC, was totally inefficient and not fit for purpose. That was clear from JRC reports but it
was also mentioned in the legislation that you proposed. Can you explain the fact that, more than 10 years after those days, it is still not in place? What happened? Was there huge pressure from certain services within the Commission, from Member States, etc., from industry, to slow down the process of the development of that new test cycle?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Of course we have different opinions in the Commission and sometimes the Commissioners are loyal, more loyal, to their portfolios. I had the honour and the pleasure to work together with Mr Verheugen, who was a dedicated European, and he worked very hard for the promotion of the interests of Europe and also he did his job as he thought in the most proper manner.

Of course we had disagreements. This is the essence of cooperation, after all; you disagree but in the end you have a result which is what should be the best at the time.

Of course it was a difficult time, but I would remind you that during these years that I had the honour to be Commissioner, environmental issues were a top priority for the Commission and the European Union, and we had excellent results in certain areas. We could of course, as always, have done more. But I think we succeeded in bringing up the environment and Commissioner Verheugen was part of it. He was part of the Commission at that time.

Should I carry on and answer why it took so long?

Gerben-Jan Gerbrandy (ALDE). – Yes, please.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I have read all the transcripts of the hearings of a lot of distinguished experts. I think it is quite clear that this procedure – testing the cars – is very complicated, very technical. I cannot really explain everything to you. I am sure that you know more about it after being members of this committee. But in my opinion too it could have taken less time; 10 years is too long.

But you know how the work in the Commission and in the European Union also is done. We have various majorities – qualified majorities – in certain committees.

Gerben-Jan Gerbrandy (ALDE). – Sorry to interrupt you, but was faster development of this new test cycle, was that frustrated by forces within the Commission? Because you quote from the JRC in the written answers that ‘any test cycle’ and then you add ‘and the NEDC in particular’ represented the vehicle emissions during real use only very poorly. So it was very well known.

In a Commission where environment has a high priority the development of such a test cycle should have had a huge priority and we have seen that the differences between the test results and the real-life emissions have been growing since then. So were there very strong forces against a quick development of a new test cycle?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – As I said before, and I think everybody has said this, when the Euro 5/Euro 6 legislation was proposed and was agreed and was voted, the issue was well done. This is the reason that there are in the legislation these two empowerments in, if I remember well, Article 5 or Article 13 – Article 13 I think.

And of course, as I said previously, we had to choose at that time whether we should go ahead with the legislation of Euro 5 or Euro 6, or wait for the test cycle to be changed and have a
new test which would represent in a better way the real driving emissions. Or we should go ahead with the legislation and of course at the same time have the review of the laboratory test and replace it with a better test.

Just to remind you that in 2005 there was a report by the European Environmental Agency in which they stressed in about three lines the problem that existed in measuring emissions.

Chair. – We will come to that in other questions. We have a second rapporteur, Mr Zalba, but for personal reasons he has presented his apologies, so I give the floor to Mr Kariņš.

Krišjānis Kariņš (PPE). – Thank you very much, Mr Dimas, for being present. Would it be a fair statement to say that in the early to mid-2000s the main goal that the Commission wanted to solve or address was CO₂ emissions, regarding the environment?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – As I said before, air pollution and particulate matter were the number one priority. Of course, I cannot choose and say that carbon dioxide was not a priority. It was equally a priority and we worked to achieve the best results in both cases. But in 2005 the issue of the measurements, both for carbon dioxide and for nitrogen oxide, was not really as big as it is today or as it was later on.

This is what I was saying previously: there were two and a half lines in a report of 600 pages by the European Environmental Agency and of course there was another report dedicated to transport and emissions by the European Environmental Agency, back again in the same year, which was also the same words repeated.

Krišjānis Kariņš (PPE). – So what you are saying is that it was particulate matter which was the main focus of the Commission at the time, not CO₂ emissions.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Both.

Krišjānis Kariņš (PPE). – Ok, both: CO₂ and particulates. Now if it was clear, as you have just stated, that during Euro 5/6 before 2007 the study showed quite clearly that the real driving emissions would differ – and also the JRC study showed that the NOₓ emissions were much higher on the road than in the lab tests – why then did the Commission in your view take the decision to push the legislation through and move forward knowing that there were these fundamental problems, the measurement problems?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Because if we had to choose the other way, to wait or to go ahead with changing the testing procedure and finding a better one, we knew that this would take time and so we would not have the legislation in place. So what we chose to do – and I think it was the correct decision – was to go ahead with the legislation, keeping the same testing procedure that was actually the legal procedure, and at the same time start reviewing and trying to find a better system to measure emissions in the correct way.

Krišjānis Kariņš (PPE). – In hindsight would you say today that perhaps the result of this decision was not fully appreciated – that is to say the understanding of what NOₓ was and the huge difference between labs and roads, and the fact that it is a breathable pollutant. I do not know how to correctly classified it as opposed to CO₂, which is an environmental pollutant. Do you think in hindsight maybe things were pushed or moved forward in a manner which was not optimal?
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – No, I have the opinion that that was correct, even now, looking back at those years and knowing what has happened since then. I think we did the correct thing. At that time, as I said, the World Health Organisation considered PM as the number one deadliest threat.

Krišjānis Kariņš (PPE). – But is PM a higher pollutant from diesel motors or from petrol motors? And is that not handled on a filter basis in the exhaust system?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – At that time, the cars were different from what they are today. The diesel cars of that time were emitting differently from how they emit today. They were of less weight, smaller in size and actually the diesel engine at that time did not create as many problems as today. So the nitrogen oxide problem at that time was not as big as it appeared later on. The number one health problem at that time was considered to be PM and that was what we tried to deal with, and we did it successfully.

Jens Gieseke (PPE). – Mr Dimas, welcome. I am very pleased that you are here. You needed only one invitation and came immediately. Your Commissioner colleague Günter Verheugen needed four invitations, but he did come in the end. You now say that Verheugen is a good European – I think so too, but I also believe that you are a good European too – and that you worked towards the same goal in the College of Commissioners. That being so: how should I as an MEP understand a situation where one Commissioner gives direct answers, comes to our meeting and is prepared to provide explanations, while the other is not? It appears that these problems also arose in your practical work – reading between the lines, that DG Environment was fighting DG Enterprise –, or did you as Commissioners want to move Europe forwards together? Or was one concerned only with the environment and the other only with industry?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I have to say again that we did not fight. We had disagreements of course. I think that in the College they have disagreements every Wednesday, but what counts is the result. I am sure that in many respects the disagreements were very useful in order to find the correct solution. This is what we did with my Commissioner colleagues at that time.

Jens Gieseke (PPE). – Thank you. In your introduction you mentioned the Euro 5 and Euro 6 legislation and the issue of Article 5(1) – normal operating conditions – and Article 5(2) – the question of defeat devices. This is a subject of very controversial discussion here because it may have opened a door for the car industry to look for a loophole in an unclear legal framework. At this morning’s hearing we established that the legislation on this matter has not changed since 1998. Did you in the Commission have any indication in 2007 that the wording of the legislation might not be entirely clear?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I think the article, Article 5(2) if I remember well, is very clear. Of course there could be different interpretations, you can always have interpretations, even in the clearest in the provisions of law. And what we have in this case – I’m talking about the Volkswagen case or any other cases if they exist – is fraud, is cheating, which is prohibited. Article 5 bans defeat devices: it is very clear. If there is a problem of interpretation, because the implementation takes place in 28 Member States, then we need, in a way, unified interpretation. This is something that, if I have followed the work of the Commission well, this is what they are working on. They tried exactly to have the interpretation of this article in a unified way, which is necessary.
I think this is my opinion regarding this article about defeat devices: they are banned, they are prohibited. I shall add something: of course in this Article there are exemptions, if I remember well there are three exemptions, and the manufacturers, the car makers, over-optimise, if I may say so, the flexibilities provided by this article in order to go round the legislation. In my personal legal opinion, this would be against the spirit of the law. Other people interpret it as being OK with the law because the letter of this article permits exemptions but the exemptions are only, as the word says, not the rule. So if the industry is overdoing it, then they are against the law. But this is my personal legal opinion, it has nothing to do…

Seb Dance (S&D). – Thank you Mr. Dimas, and thank you for coming today. I know your comments about preferring not to have a committee of inquiry. Of course we would all prefer not to have a committee of inquiry, but we would prefer to have vehicles that weren’t poisoning us. You have stated quite frequently that the regulations on your watch are clear. Regulation No 715/2007 defines the needs of manufacturers to meet conditions under ‘normal use’. Do you believe that the NEDC test cycle, which consists of a 20-minute drive time with very few accelerations or dynamism, and an average speed of 30 kph, is ‘normal use’?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I would rather agree with you on this, and actually this is what I said previously, that there are flexibilities and the industry in my opinion is over-stretching these flexibilities. But ‘normal use’ has been interpreted in the European Union, and this is what has been practised in Europe all these years, it’s not something that has happened in the last year or two years.

Seb Dance (S&D). – So effectively it is the interpretation of ‘normal use’ that’s to blame. How does that make the regulation clear? You’ve said in your written response that all definitions are clear and exemptions exist only ‘for something used in exceptional circumstances, not all the time’. But if what you’re saying is that people – well, manufacturers – have misinterpreted the regulations, how could the regulation possibly be clear?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I didn’t say they have misinterpreted, I said they are over-optimising the flexibilities, and if you ask most lawyers, they will say that they are within the provisions of the law. Now what I answered in the question is regarding the defeat devices, and there the provision of Article 5 is very clear, that it bans them.

Seb Dance (S&D). – In terms of ‘over-using the flexibilities’, I’m sorry I’m not sure I know what that means, but if there are flexibilities in a regulation that in your view are over-used, it’s not very good regulation.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – OK, you can say that, but in my opinion the regulation is clear. There is the prohibition, the ban on defeat devices, with three exemptions, and these exemptions have perhaps different interpretations in the 28 Member States. And when we say exemptions, even legally we know what we mean, we do not mean that it happens all the time. It’s only in very rare cases that these defeat devices will be permitted, for example for avoiding danger or risk driving.

Seb Dance (S&D). – OK, so on defeat devices you believe there is a clear definition in that regulation. But on the test cycle constituting normal use, it’s quite clear that there is a lot of ambiguity in what you’re saying, there’s a lot of ambiguity in what the manufacturers are claiming the regulation is saying. Are we relying too much on common sense here from manufacturers? Can we rely on them following the spirit of the law as well as the letter of the
law, if the letter of the law is letting us down? And given the public health consequences of this, which of course were known in 2004 following a report from the EEB on the effects of NOx emissions on public health, was there anything that you felt you needed to do to make sure that those over-uses of flexibilities were not just underused but prohibited?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I do not know which report of the EEB you are referring to. I don’t remember it, perhaps there is...

Seb Dance (S&D). – It was very widely publicised, I’ve got a copy of it somewhere...

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – You mean the European Environmental Agency?

Seb Dance (S&D). – I’m sorry, my mistake, I am actually mixing them up. Sorry, I meant the EEA the Environmental Agency report 2004.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Yes, there is a report, I referred to it previously, and as I said there were two reports by the EEA. One was about 600 pages, and they had two-and-a-half lines regarding...

Seb Dance (S&D). – They were quite important lines.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Very important lines. I fully agree with you. And this is the reason that we took it over in the Commission and we had the legislation with the two empowerments in Regulation No 715/2007, and also the report you are referring to which was specific to the transport industry, and it was again exactly the same words repeated in the same report. So it was taken by the Commission very seriously and we started this whole process. Now whether it took too long or not this is something for you to find out.

Mark Demesmaeker (ECR). – Mr Dimas, welcome. May I first ask you how you yourself would describe your own driving style?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – You are asking something very unpleasant for me. I was a good driver. I do not mean to admit that, because I do not drive anymore, I am old. I do not drive for other reasons.

Mark Demesmaeker (ECR). – I see that you do not really wish to give an answer to the question, or that you cannot, but let us say that, for an average driver, it would probably take between 5 and 10 seconds. In your answer to Question 2 you say that the NEDC tests were intended to approach real driving conditions. In the answer to Question 1 you also say, ‘The need for a more realistic test procedure became apparent after the entry into force of the Euro 6 Regulation’, after which the Commission got to work on the WLTP. Are you aware that,
according to this more worldwide WLTP procedure, which is more ambitious, the fastest acceleration from 0 to 50 takes 15 seconds? Do you know anyone who genuinely drives that way on the road? Perhaps you used to? I do not know.

1-301-0000
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Again, difficult questions for me. I know that this test that has been developed by the United Nations Economic Commission for Europe goes back to 2008 and has developed since then, rather slowly again, but this was not the responsibility of the European Union. It was the United Nations.

1-302-0000
Mark Demesmaeker (ECR). – It remains a fact that it is quite unrealistic. This is also evident from the discrepancy between real emissions and emissions in laboratory tests – the inadequacy of the NECD. And now we are here, with this committee of inquiry. You say yourself that things could have been remedied more quickly. In saying that, you imply that remedial actions were delayed, and in your answer to Question 8 you make a striking analysis, which I shall quote verbatim: 'Carmakers have an interest in overestimating compliance costs before regulation has been adopted, as high costs can make regulators to decide to weaken or abandon intended regulation. Afterwards they engage in a race to reduce compliance costs to a minimum.' Does this not indeed prove that those necessary actions to remedy the situation were delayed and if so, who played the crucial role in bringing that about?

1-303-0000
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Again, as I said, the decision process in the European Union is slow. We know this. There a lot of stages in order to have a decision, and in order to have a proposal enforced it takes years. You have the codecision procedure, you have special majorities, you have the decisions in the Commission and so it takes a really long time. This is the reason that I said I would prefer to have a shorter period in order to have a better test, though there would be a different opinion between those who are interested in the health of European citizens and in the pocket of European citizens who are interested in fuel efficiency.

Now, regarding this, it is true that the industry, always before a decision was taken, was overestimating the cost of complying with the proposed legislation. After it was taken, after the proposal was adopted, they were trying to bring down the cost of compliance with it. I would not say that they should do it in a different way but we, the legislators, should know this and should act to try and have the best possible information on the actual cost. There, the technical experts are very useful and also yours are very useful. They are doing really great work, especially in the area of the environment.

1-304-0000
Gerben-Jan Gerbrandy (ALDE). – Mr Dimas, you spoke about the spirit of the law and that industry clearly acted against the spirit of the law. This morning I asked the representative from ACEA, well known to you as well, I guess, if he believes that the spirit of the law is to obtain clean cities and clean air in Europe, instead of clean laboratories. The representative from ACEA disagreed and he said that it is also the spirit of the law that cars pass the test in the lab test. What do you make of that interpretation of the spirit of the law from industry?

1-305-0000
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – The spirit of the law is a matter for the courts to decide in the end, because otherwise in legal debates we can argue for one or the other.

1-306-0000
Gerben-Jan Gerbrandy (ALDE). – But you were one of the authors of the law, so I guess your spirit is reflected in the law?
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I explained previously that the spirit of the law, first of all, is not – and indeed even the letter of the law is not – to have defeat devices, not to over-optimise the flexibilities, because this goes at the edge between legality and non-legality. Also, they should not use defeat devices, hiding behind the inability of the state authorities to discover them. This is the reason that the United States has this declaration – something that we are going to do here, I understand – that they are not hiding anything. This is the way that they can be taken to court if they use an engine or a device that will go round the limits. So the spirit of the law is something that, in my interpretation, is protecting the health of European citizens, not doing something hiding behind the technological inability to find it.

Gerben-Jan Gerbrandy (ALDE). – Thank you. Apologies for interrupting, but I would like to come to the next element. You talked about over-optimising, of over-exercising exemptions. Given those statements, do you also believe that either the European or national authorities should have acted long before Dieselgate was exposed last year?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Now that we know that this scandal erupted in the United States and was found by an NGO in the United States, of course everybody would say yes, we should have acted earlier, but it is easy to say that now.

Gerben-Jan Gerbrandy (ALDE). – But we knew even before that, from JRC studies and from other studies, that the difference between the lab tests and the real-life emissions was growing and growing and growing. In your opinion, would that be a reason, at either the European level or at national level, to interfere and act?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – The Commission moved, I repeat again, first of all by having the two empowerments in the Euro 5/6 Regulation, then by having the studies by the JRC and, if I remember well, since the end of 2010 when we had the results of all the studies, they started working in order to introduce the RDE test. But this goes beyond my time. I was in the Commission until early February 2010 and, of course, you can easily say now that we could have acted earlier, in a shorter period of time, and we could have even tried to discover defeat devices. But this is easy to say.

Paloma López Bermejo (GUE/NGL). – Madam Chair; good afternoon, Mr Dimas, and thank you for coming here.

In your answers you admitted that the discrepancies between the real emissions and the emissions provided for were known about more than 10 years ago; that a blind eye was turned to diesel on account of its having lower CO2 emissions, but that the current regulations would suffice if they were properly implemented.

I would like to ask three questions related to this.

Why do you think the Euro 5 and Euro 6 Regulation was not able to tackle this problem?

Secondly, if this was a political decision on account of disagreements within the Commission on this issue — as seems to be the case from the statements made — I would like to know how you would assess the weight brought to bear by the industry – the manufacturers — when this decision was taken.
And finally, in view of the generalised use of technical exceptions which allowed higher emissions, why did the Commission not take action against the failure to implement it properly, against the poor practices used in applying the rules and regulations in the Member States?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Taking action against the manufacturers – I shall answer now instead of the current Commissioner – I think that this is a competence of the Member States and the authority that has type approved the applications for the cars. I understand that in the new legislation the Commission will have a kind of supervisory possibility to inspect the technical authorities of the Member States in order to have a unifying effect regarding this issue.

Going back to 2005-06 and the Euro 5 and Euro 6 legislation, of course the legislation and the limits that we decided at that time were satisfactory. If the measurements and the real driving conditions were correct, air pollution in the European Union would have been at a very satisfactory level. This is the reason why I believe that the main problem is the measurement and the way that the type approval test and the real driving conditions diverge. This was the reason that we had in the Regulation Article 5(2) and (3) regarding the necessity to have a new test which will be the best way to measure the emissions.

Julia Reda (Verts/ALE). – Mr Dimas, welcome to this committee. The JRC started PEMS testing back in 2007-2008 during your mandate as Commissioner. Do I understand you correctly that this PEMS testing was started upon your initiative, or upon the initiative of DG ENVI?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – From what I have read – because really I did not remember the situation back in those years – the Portable Emissions Measurement Systems (PEMS) at that time were very bulky and very heavy. They could be about 150 kg. Although they were useful, especially for light-weight vehicles the results were not really representative, so they had to improve.

Julia Reda (Verts/ALE). – Yes I understand that, but my point is did DG ENVI in itself have an interest in improving the PEMS system? We have seen an email dated 3 September 2008 where DG ENVI asked the JRC whether they could do PEMS testing on a new so-called clean diesel car that Volkswagen was bringing onto the American market. So is it safe to say that DG ENVI had an interest in improving the PEMS system?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Of course. This is what I was saying. Because they were bulky and expensive at that time we asked for them to be made more efficient. This is what they did actually. It appears that today the Portable Emissions Measurement Systems are the best way to check for real driving conditions. Again, I have to say from what I have read that these systems perhaps do not measure all the emissions in the right way. There some pollutants that they do not measure in the right way, but I am sure that the experts will find a way to measure these emissions too.

Julia Reda (Verts/ALE). – I am asking this question because it has been mentioned before. Some car manufacturers who have testified in this committee are trying to make us believe that the Euro 5/6 Regulation does not require diesel vehicles to meet the NOx emissions on the road in normal use, but only in the laboratory, actually against the letter of the law that says ‘so as to enable the vehicle in normal use to comply with this regulation’. But in your written responses you say that DG ENVI wanted the PEMS testing in place before the Euro 5/6 type approvals occurred. So you basically wanted the PEMS system to be in place when
the Euro 5/6 Regulation took effect in 2014. So would you agree that the Commission was looking into PEMS testing in order to provide a tool to control the requirement under the Euro 5/6 Regulation to meet the limit values in normal use?

1-319-0000

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I do not remember exactly what we said at that time, but I am sure that what we strove to do was to have better measurements at the earliest possible date. This was what we tried to do all the time. DG Environment knew very well that it is not only the actual limits that count in terms of having good-quality air but also the measurements. Otherwise, you would not achieve the result you want. So we strove to do whatever was necessary in order to help.

1-320-0000

Julia Reda (Verts/ALE). – Yes, but obviously it was not as quick as you expected, since you say that DG Environment wanted the PEMS testing in place before the Euro 5 and Euro 6 type approvals occurred. So would you say that the Commission failed to review the test procedure quickly enough after the regulation was adopted? And do you think that DG Enterprise and Industry had a role in this so that the PEMS was not in place in 2014 when the type approval occurred?

1-321-0000

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I cannot really say anything because I do not know what technical problems may have existed. So I cannot really answer this question, but I am sure that the Commission officials, in no matter which DG, wanted to do whatever was good for the promotion of good air quality because this was very important for human health and the health of European citizens.

1-322-0000

Eleonora Evi (EFDD). – As regards the WLTP cycle procedures – as you pointed out in your reply No 1 – a review which took at least seven years to be finalised, I wonder if, during these delays, amid this slowness in finalising a new cycle, in all that time, there was not another method of testing available – the Common Artemis Driving Cycle – a procedure which, moreover, had been developed on the basis of research programmes funded by the Commission itself and which, as early as 2005, had shown itself to be far more reliable than the existing one?

Could you return to this point and explain once again – because you have still not convinced me and nor have the other witnesses to whom I have put this question – for what reason was there this slowdown in adopting a new procedure and a clear lack of political will to adopt an effective existing procedure such as the Common Artemis?

1-323-0000

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I have to admit that I do not always remember the various tests that existed. There is this one and there is another one – as we said previously – developed from the United Nations Economic Commission for Europe, which is used for carbon dioxide. There were various procedures. What I have to say is that the legal obligation was to have the type approval test. That was the law at that time. In order to change this, you needed to go through the normal procedures.

Now any regulatory test procedure poses technical challenges that are fairly great. For example, the PEMS, as I said previously, was very bulky. The emission limits for light-duty vehicles, when we used PEMS initially, were defined differently in Europe from in other countries, including the United States. In order to develop a really good test, you need a lot of time. This is what I have read since I left the Commission, not when I was Commissioner. As I said previously, when I was Commissioner we started looking at and reviewing the test. The problems were not exactly the same as they are today. The issues raised today were not raised at that time. There are different issues today.
Eleonora Evi (EFDD). – That is true but the Common Artemis Driving Cycles really performed quite well. Anyway, I will go to another question I would like to pose regarding the principle of technological neutrality. You mention it in your reply number two. Basically, diesel engines had a more favourable approach because of the reduction of CO₂, but do you not think that we should no longer pursue this principle as today it is quite clear that there are difficulties and that there is a lack of improvement in diesel-vehicle emissions?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – There is a diversion from technology neutrality regarding diesel and petrol. By the way, in the USA they have unified the treatment of all cars but this does not mean that that is better than the system in Europe. Technically I cannot say whether they have simply to keep the distinction between petrol and diesel or not because technology is moving very fast. Therefore I am not really in a position to answer this question. You will have to ask somebody who is better acquainted with technologies and their development.

Since 2005, diesel cars have developed in a really impressive way – I do not know whether for the good of the environment or not – but the development is really impressive.

Ivo Belet (PPE). – Good afternoon, Mr Dimas. Let us suppose that you are back in charge of DG Environment and that you have all the knowledge that we have now: what would you do differently?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I think the easy answer – which I really believe – is that I would do the same thing, taking the circumstances into consideration: that is, what was valued at that time, what science was telling us at that time, what the World Health Organisation was stressing to us, and what the main concern of European citizens was at that time, namely premature deaths especially from particulate matter, PM 10 and then PM 2.5, which came a bit later. The harmful effects of PM 2.5 were not well known at that time. We actually became acquainted with these in the years after 2004.

Ivo Belet (PPE). – You mention in your answer – and you have reconfirmed it here – that there is nothing wrong with Article 5.2. That is clear. There are some interpretations and some flexibility, but the definition is clear that it is for the Member States to control. So my question about the new Commission proposal concerning type approval – which we have already been discussing – is to ask whether it is robust enough. Does it give us the guarantee that all the loopholes will have gone and that the oversight will be independent enough? Do we not need robust, independent European oversight of that type approval that goes a little bit further than what is now on the table? I mean as a Commission proposal.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I would just like to say, first of all, that sometimes we overlook the direct responsibility of the companies involved. We try to blame a number of other factors for the violations, including unrealistic test conditions or a number of loopholes or – as I said – over-optimisation of the flexibilities, or a lack of transparency. However, the main responsibility lies with those companies that violated the law. If they use defeat devices, they violate the law; and, if they hide these defeat devices, they violate the law, although it may be very difficult to uncover such violations.

Regarding Article 5(2) and (3), as I said, the prohibition is very clear. The ban is very clear: defeat devices are prohibited. There are, of course, companies or people who violate the law. It is not only this law that has been violated: other prohibitions exist, but people still violate them. You have to punish them. I do not know whether that is happening in this case. I do not
know whether there are legal ways for the Commission to impose punishment on Member States. This is a difficult question in terms of the relationship between the European institutions and Member States. There is actually a big discussion about whether it should be done or not.

Ismail Ertug (S&D). – Mr Dimas, you have repeatedly pointed out – and I believe rightly – that the industry has taken flexibility too far, and I completely agree with you on this point. You have also said that the decision-making processes within the European Union take a long time.

You have also rightly said that the measures that should have been taken ought to have come from the Member States. I should like to ask in this connection: Regulation (EC) No 715/2007 – i.e. Euro 5, Euro 6 – contains an Article 13(1) whose key passage reads as follows: ‘Member States shall lay down the provisions on penalties applicable for infringement by manufacturers of the provisions of this Regulation and shall take all measures necessary [...]. The penalties provided for must be effective, proportionate and dissuasive.’ It also sets a deadline: ‘Member States shall notify those provisions to the Commission by 2 January 2009’.

I should like to come back to what you rightly said, that the flexibility has been exploited and exaggerated and that measures should also have been taken by the Member States. Now we can see that no such measures were taken by the Member States in 2009, 2010, 2011, 2012, 2013, 2014, 2015 – for seven years. Do you agree that, after your years in office, the Commission – DG Competition or some other DG – should have been quicker to act as guardian of the Treaties and should have exerted pressure on the Member States by opening infringement proceedings?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I like the question because it is actually a question that could create a big debate. All the European issues could be debated in answering your question.

Regarding these particular issues, the legal framework is set by the Commission, and application and enforcement are the job of the Member States. That is it. That is how we work: perhaps it is not the correct way, but this is how we work. If I had to choose, I would rather have centralised competences, but many people would disagree with that.

Ismail Ertug (S&D). – I totally agree. You are totally right, but my question is in another direction. We all know that the Commission is responsible for the enforcement of what the Member States have to bring forward. That is the nub of my question. I think – and I hope you will see it too – that the Commission has a responsibility for the enforcement of legislation from the Member States, where the Member States are responsible. If the Member States are not doing this, then I think the Member States have to come forward with the procedures.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I have seen from the discussions in this committee that the Commission has initiated quite a few pilot actions and also infringement procedures in respect of certain Member States. It has sent out formal letters. I do not know what the status of these procedures is now, but I know that they did this last year or this year. I am not very sure.

Ismail Ertug (S&D). – No, there have been no infringement procedures. This is the problem, by the way. There have not been any infringement procedures from the Commission in
respect of the Member States. That is the problem. I think – and I hope you will follow me on this point – that the Commission failed to do something earlier with regard to this issue.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Usually, in order to move, the Commission has to have concrete evidence. It is a matter for the Commission to evaluate what evidence, what proof and what material they have available to justify a procedure like this. So I am not in a position to answer you.

Ismail Ertug (S&D). – But we have the information from an official of an authority in Austria, the Umweltbundesamt. This guy told us that in 2006, when Austria had the Presidency, they informed colleagues and responsible colleagues from the Commission of the misuse of these kinds of things. This means that concrete proof was given – at least in 2006 – to the Commission, and I think that the Commission has to come forward.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – In 2006? They had a defeat device or what?

Ismail Ertug (S&D). – Not directly a defeat device, but the Austrian authorities told the colleagues responsible in the Commission that there was something wrong within these kinds of mechanism.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I really cannot answer this, but if this Austrian fellow had discovered something that the Americans discovered ten years later, it would have been very fortunate for the European environment.

Jens Gieseke (PPE). – Thank you, Madam Chair. I shall take the opportunity. Mr Dimas, you have come under some pressure in the last six minutes in your capacity as former Commissioner. I should like to ease the tension a little so you do not regret coming to speak to us here today. We have a very broad mandate to investigate possible failings by the EU institutions. And we must be self-critical enough to acknowledge that this includes Parliament.

You will remember the CARS 21 high-level group, which was set up by the former Commissioner Antonio Tajani and to which Parliament was also invited. I still do not quite understand why Parliament did not participate. The Committee of the Regions took part, for example, but Parliament did not. I was not a Member of the European Parliament at that time, but I think playing an active part in that group would have been a good opportunity for MEPs as well. We could have helped speed up the extremely slow processes that we are now criticising. Do you have any indications or can you suggest any reasons why the European Parliament did not participate in the CARS 21 group?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I do not know. Perhaps you know better. You are right in a way that the European Parliament is very useful in its participation in debates about environmental issues. I remember that I always had allies in Parliament. In the years 2004-2006, Parliament was of great help in promoting environmental issues. So if I had been advising Parliament at that time, I would have told them to go ahead and participate in CARS 21, with one small reservation that CARS 21, as I remember it back in the years when I was Commissioner, was perhaps one-sided with a lot of representatives from the industry, and only one Commissioner for the Environment and one NGO participating. So it was really not well balanced, although it gave the opportunity to the environmental NGO and to me to fight very hard and get some results.
Mark Demesmaeker (ECR). – Mr Dimas, in your answer to Question 6 you say, and I quote, ‘The definition of defeat devices in Article 3 and its subsequent prohibition in Article 5 of Regulation [and so on] are clear.’

You indicate that the definition of those defeat devices is clear and that the alleged loopholes in the legislation are therefore not a reason for the under-estimation of the current emissions by car manufacturers. I am happy to hear that, because then you may be able to give us an answer to this question. We have spent hours here in this committee considering the temperature windows, the thermal windows. Can you tell me whether the temperature window that is used, for example, by Renault and Opel and which restricts the full functioning of the EGR system or which restricts the full functioning of the EGR system below 17 degrees – whether in your opinion it is a defeat device: yes or no?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I would like to just repeat again that the definition of defeat devices in Article 3(10), and its subsequent prohibition in Article 5(2) of Regulation 715/2007, are clear. All technical issues, such as the exemption clauses that you mention, should be taken care of by Member States’ authorities who would be under the obligation to justify why a certain exemption is needed. We have always understood that exemptions are by definition something used in exceptional circumstances, not all the time. Now regarding Renault and the temperature, I do not know…

Mark Demesmaeker (ECR). – Below 17°, is that a defeat device, yes or no? As from what temperature does it indeed constitute a defeat device in your opinion? If it is so clear, you must be able to tell us.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I cannot tell you whether it is a defeat device or not. For goodness sake, I’m not really an expert regarding this.

Mark Demesmaeker (ECR). – Another question: ‘Were there any contacts between the Commission and the US EPA concerning air quality and emission standards when you were a Commissioner?’

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I do not know, I do not know the technical details and I cannot give an answer, it would be irresponsible for me to say anything.

Sven Schulze (PPE). – Mr Dimas, I should also like to thank you for coming here today. It is certainly not always easy to answer questions about things that happened a long time ago, and I must back you up on one point. A few minutes ago my colleague Mark Demesmaeker asked you about the issue of accelerating from 0 to 50 in – I think – seven or eight seconds. I drive from Germany to Belgium via the Netherlands every week and I have to tell you: this is realistic, particularly considering the way people sometimes drive in the Netherlands and Belgium. People must be allowed to have some fun, after all. Now, this is also a topic that we are considering, i.e. whether or not the rules laid down by the Commission are all in fact realistic, and as an engineer I have a problem with the issue of ‘normal operating conditions’, which is the wording chosen by the Commission. I believe that this is the point raised in the previous question too: the matter of this thermal window, and the question of whether defeat devices are inadmissible or whether perhaps this fits precisely under the topic of normal operating conditions.
There is one thing that I really do not understand – neither from my previous life as an engineer nor here in the European Parliament, where I am sometimes involved with reports, and where I see that extremely lengthy discussions take place on the finer points of the wording of individual provisions because we want to make the definitions even better: now I gather that you had this definition in the legislation and I simply cannot understand why this was not defined more precisely. In my opinion, if it had been more precisely defined, we would not have to ask certain questions today because it would have been clear whether the $17^\circ$ C thermal window amounts to a defeat device or not. And so my question is: how could it not have been possible to provide a better definition on this point?

1-351-0000

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. –Concerning what was clear then or now, it could be perhaps something clearer, but the legislators sometimes do not know what could be clearer in the future. So this is what I had to say regarding this. In my opinion, when it was legislated, and even today, the definition is very clear. ‘Defeat device’ is exactly what the name says, it is something that you cannot really easily discover. Even today I understand that the American authorities do not know what the software, or whatever, is the defeat device used by Volkswagen. How could it possibly have been predicted at that time? The definition, the article is clear, there is a ban on defeat devices. There are exemptions for particular cases, and exemptions are exemptions, they should not be used all the time but only under particular circumstances.

Now about this temperature window, I do not know how it could have been predicted when the legislation was drafted.

1-352-0000

Sven Schulze (PPE). – I must insist on this point. It seems clear to me – based on current knowledge – that VW’s action in an individual case was not allowed. However, the public debate – particularly in German car magazines – is also focusing on the question: how is it possible for Opel and others to be working like this and incorporating these thermal windows? And there is also the matter of the exhaust device being switched off if I drive at an altitude of over 1000 m, and people are quick to say that this amounts to fraud. I do not believe that it is fraud, because the legislation does not define it as fraud, and I believe that this is a debate that stems from the fact that normal operating conditions are not precisely defined.

I have a second question: how do you assess the cooperation between you in the Commission, between the Member States and between representatives of the car industry such as the ACEA, that we have also heard today? Can you briefly describe in two or three sentences how this functioned and what kind of dealings you had with one another – you have already given some explanations on this point today, but perhaps you could say something more specific on this triad formed by the Commission, Member States and lobbyists working for the car industry?

1-353-0000

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – No, if the translation was correct, ‘dealings’, we didn’t have dealings, perhaps the translation is different from what I understand the meaning of ‘dealing’, but we had cooperation and of course we were meeting the industry, Member States, stakeholders, the NGOs, and discussing in an open and transparent way the issues that we are dealing with.

Sure, we had we had cooperation with industry. I’m not talking not only about the car industry, but with other interested parties, with non-governmental organisations, with Member States and Member States’ organisations or civil society, always in an open and very transparent way. I remember that on my website it was published whom I would meet, and at that time it wasn’t very usual, it was the beginning that we had this transparency. Of course we had disagreements and sometimes we had real angry exchanges. I remember a few cases
like this, but always we did what we thought should be correct and in defence of the European citizens, and in particular in my competences, for the good of the environment and the health of European citizens. This is what I had to do and I’m very proud that we had good results during these year.

Christel Schaldemose (S&D). – Thank you. Mr. Dimas, in your written answers to us, number 7, you write that the perception at the time was that the main problem was the test procedure and not individual malpractice. But still we know that in the United States, back in 1998, we saw a situation where some companies had made this manipulation and they got quite huge fines due to the fraud they committed. Didn’t it did’t it occur to you that there was a risk of car companies committing fraud? I mean, everybody knows that there was this discrepancy between the lab test and real drive, but the reason behind it, didn’t you ever talk about the risk that they tried to manipulate it on purpose? Didn’t that come up at any meeting?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Of course we knew about what happened in the United States, and this was used by the Commission when we dealt with the issues. But when you legislate, you know that there are perhaps some who will violate the law. Always. It happens all the time, not only on environmental issues, not only in this car issue, but when you have a law there are people who violate it. The legislator prohibits something, but cannot prohibit the action that will violate the law, they cannot even predict it. Of course, what is needed is to be able to have the test, like the real driving test, to have the results which, if they are really different, then you can have suspicions that something is going wrong. And this is what was happening. We knew that the emissions measured were not correct and we tried to correct the system, we tried to find the best system to measure the emissions.

Christel Schaldemose (S&D). – I understand that, but several reports from, for instance the Environmental Agency, stated that there were some problems, and also later on, indicating that it was not just the test method that gave a reason for this. So I just want to know: You were a Commissioner for five years. What kind of warnings do you need in order to react on that basis? We see a lot of reports and of course it can be difficult to read everything in detail, but how concrete must a warning be in order to get a Commissioner to act on a suspicion?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Very correct, of course the Commissioner is not alone, he has a very good DG working for him and I have to say that I was very fortunate to have the most dedicated and conscientious officials working for DG ENVI. But what you need is for example the warning of the World Health Organisation, stressing that the deadliest threat for human health was PM10, or the warning, even with the 3 lines in a 600-page report by the European Environmental Agency, regarding the type approval test, the laboratory test which was not reflecting the real emissions of the cars. And this is the reason that we moved with the two empowerments in Regulation 715/2007, then we started the process of changing the measurement.

Gerben-Jan Gerbrandy (ALDE). – Thank you, Chair. Mr. Dimas, in your written answers you say that the Commission was empowered to adapt to test cycles. If I read the regulation, it reads more like an obligation for the Commission, because it says, and I quote: ‘the Commission shall keep under review the procedures, tests and requirements...’ etc., etc. Do you agree with me that it’s stronger than just empowerment and that it was an obligation? And do you also agree with me that, given the fact that it has taken more than ten years to develop a new test, the Commission sort of failed in this obligation?
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I wouldn’t give an answer regarding this because I do not know all the technical difficulties that they had, and it appears that there were a lot. And this is the reason that they have not a different test which will represent real emissions also in the United States, or in Japan or in another countries, in Australia for example. So I think some of these questions can be answered by the current Commissioner rather than by me. Actually I’m a bit limited in time and in in the technologies of that time and the priorities of that time in comparison to today.

Gerben-Jan Gerbrandy (ALDE). – I will ask the current Commissioner, although it sounds a bit strange that only technical problems can be the reason for such a huge delay. My other question: next week we will be visiting the Joint Research Centre, and in answer 9 you said that it was your services that asked for a study on PEMS and some other issues. Can you recall whether there was any obstruction from DG Industry on asking the JRC for any further studies? And secondly, was the JRC free to publish its studies after they were finished, or did they need any approval by the Commission or by DG Industry or Enterprise or whoever?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I’m sure you are going to ask Mr Verheugen regarding this. I do not remember any obstruction. I was, and I am always, for the publication of studies. Whatever becomes public knowledge is always helpful in shaping the policies and the legislation, because you can hear objections to these agreements or observations regarding whatever you publish. So I can’t say anything more on this.

José Blanco López (S&D). – Madam Chair; Mr Dimas, I would like you to confirm for me whether, when you were Commissioner, and bearing in mind that the legal framework was established by the Commission, that interpretation was too flexible already at that time and whether the industry interpreted it thus.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Interpretation – and I use my knowledge as a lawyer – can come at any time. When a provision is applied then you interpret it, and those who apply it interpret it in a certain way. In the European Union we have 28 members which are interpreting the application of this law, and so perhaps we have differences. And this is the reason that I said previously that we need – now I am talking for today, not for what happened 10 years ago – we need a unified interpretation.

José Blanco López (S&D). – Commissioner, I asked you about your having reasserted that the legal framework established by the Commission — as interpreted from your point of view when you were Commissioner — was too flexible.

You were therefore aware that it could be being used in a way that was too flexible and that tampering devices might have existed which a flexible interpretation of that Regulation could have shielded.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – It’s not that we knew that it was interpreted in a different way at that time. But I said that my knowledge of the discrepancies between the emissions as measured by real driving test conditions and the laboratory test... we know that the cars did not stand up to what they were obliged by the regulation to do: they were emitting more. But legally, apparently, they were legally in order and they were using, this is what I said, they were using the flexibilities or the interpretation, and over-optimising these flexibilities they were able to emit more than they should have done. This is it. I said it a few times.
José Blanco López (S&D). – Commissioner, they knew therefore that flexibility existed, they knew that tampering was possible, but it was covered by the regulation and they looked the other way.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Not really. I will tell you an example, I know that…

José Blanco López (S&D). – Yes, a little, not everything, then, but a little.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I know that regarding carbon dioxide, when we proposed and when we decided the legislation for carbon dioxide, we knew that there were discrepancies, it was even calculated that it was about 20%. So we took – and this is what the Director of DG Climate when he came here the other day, said to you – and we calculated this and so we had a result which was satisfactory, knowing that because of the laboratory test the real emissions were higher. So we took these into consideration when we legislated, but the legal test was that one and we had to follow what was obligatory.

Chair. – Thank you, Mr. Commissioner. We were so happy that you are here that we did take an extra half an hour, but this is your last MEP to ask questions. Bas Eickhout.

Bas Eickhout (Verts/ALE). – Thank you very much. This is the last question. I am a bit puzzled, because you are a lawyer by training so you know very well that Euro 5/6 is a Regulation. It was changed on purpose. You even say in it your written answers: it was change from a directive to a regulation in order to limit the interpretation possibilities of Member States. So every time you refer to flexible interpretation, I am a bit puzzled by that because it is a regulation. And for me, really, I just want to read out slowly the core Article 5(1) that really talks about the emission limits and then to just hear your interpretation knowing this is a regulation. It says: ‘The manufacturer shall equip vehicles so that the components likely to affect emissions are designed, constructed and assembled so as to enable the vehicle, in normal use, to comply with this Regulation and its implementing measures.’ How else can we then read that the cars in normal use should stay within those limits, and can we not just conclude that Member States failed to enforce this regulation. This is your important result from those years, and it has not been enforced. So I would expect from you a bit more of an ‘angry’ attitude.

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – I have to repeat again that the situation in the European Union is what it is. The Commission legislates – we, the Commission sets out the legal framework and the Member States are responsible for the application and the enforcement of the law, and that is it.

Bas Eickhout (Verts/ALE). – If Member States fail to enforce, the Commission has a role?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Yes, but if there are cases for infringement, as I said before, then the Commission has to take proper measures and send the letters provided for.

Bas Eickhout (Verts/ALE). – In this case it is so clear that the Member States failed to enforce, if you read the regulation Article 5(1).
Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Do you ask me to answer as an expert or in my capacity as the former Commissioner? Because as the former Commissioner I have to answer for what happened at that time. For what is happening now, we have to ask the new Commissioner, the one who is responsible for it. I have my personal opinions, I could be angry or not, but I cannot give you an answer for this.

Bas Eickhout (Verts/ALE). – But in your period of time JRC was developing a new PEMS testing method, you talked about it, and in the conclusions of the 2007 JRC study they were already saying that the PEMS testing was ‘a solid base to develop a regulatory tool’. That is the conclusions of JRC 2007. So every time you say it is a murky tool, or whatever, they were saying in 2007 that it is a solid basis for further regulation. So how could you even at that time be relaxed?

Stavros Dimas, Commissioner for the Environment from 2004 to 2010. – Over time the testing procedures and the test programmes have evolved with the development of type-approval test procedures as well as available measurement technologies, with the development of our understanding of real-world emissions and with the advances of vehicle technologies. So this is something evolving, it was not stationary. At that time, as I said before, even the PEMS were not really easily usable. They were very bulky, very heavy. And even what you read in the JRC report referred to ‘the basis’ for development, the beginning. So this happened. We had PEMS as the way to check for real emissions on their own. And this is, from what I understand, what the new legislation will provide.

Chair. – Thank you very much. Dear colleagues, it is five o’clock sharp. As I said before, we took half an hour extra and let everybody speak a little bit longer and that is because you are the first former Commissioner to be the guest of our Committee. Thank you very much for the answers. If other questions come up we might ask you to answer them in writing, if that is OK.

Dear colleagues, I will see you next week if you are joining us at the JRC in Ispra. For all the others, that was the last time before the beginning of the political year. So all have a very nice holiday, I think we can all use one. We will see each other again on 30 August with a meeting with Mr Verheugen, so that would follow on from today. Former Commissioner, thank you so much for coming here.

(The meeting adjourned at 17.00)