ROAD SAFETY COMMITTEE

Inquiry into vehicle safety

Melbourne — 4 February 2008

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Mr P. Robertson, general manager, vehicle safety standards, federal Department of Infrastructure, Transport, Regional Development and Local Government.

The CHAIR — Thank you very much for being here. Welcome to the public hearings of the Road Safety Committee's inquiry into vehicle safety. All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and further subject to the provisions of the Parliamentary Committees Act 2003. Having said all that, any comments you make outside the hearing may not be afforded such privilege. We are, as you can see, recording the evidence and will provide a proof version of the Hansard transcript at the earliest opportunity so that you can correct it as appropriate. If you could just state your full name for the record, and the organisation that you belong to, and commence on your submission.

Mr ROBERTSON — Thank you, Chairman. Peter Robertson, Department of Infrastructure, Transport, Regional Development and Local Government.

The CHAIR — If it is okay, we will just ask questions through your presentation.

Mr ROBERTSON — That is fine.

The CHAIR — We might kick off with questions.

Mr ROBERTSON — That is fine by me. We have not got the technology, so we might as well use the time.

Mr KOCH — Peter, prior to any questions, would you be kind enough to background the activities of the department across the board, just to give us a little bit of a better feel? We have a very short sheet in front of us. I think to pose a question at this stage without just a background would be limiting.

Mr ROBERTSON — The department as a whole?

Mr KOCH — We are interested in relation to vehicle safety.

Mr ROBERTSON — Okay. The department has a range of responsibilities in the transport sector. Within land transport the department has the Australian Transport Safety Bureau, a part of which coordinates the National Road Safety Strategy. The department also, within the maritime and land transport division, administers the Motor Vehicle Standards Act, which is obviously an act of the federal Parliament. Its main objects are to provide for a uniform set of national vehicle standards, applicable to all new vehicles being operated in Australia, and to make provision for regulating imported used vehicles.

Mr WELLER — One question would be: what is your department doing to encourage the fitment of the likes of ESC and other lane detection and speed monitors — all those modern types of technologies — into cars here in Australia?

Mr ROBERTSON — That is a good question. The presentation would help explain all of that, the background to it. Firstly, our role is primarily that of a regulator. Any vehicle that is supplied for the first time to the market in Australia needs to meet a certain set of minimum standards, and what the legislative responsibility focuses on is the development of those standards and then how vehicles are shown to meet the standards and then how they are enforced. So if a requirement is in a standard, the vehicle must meet it. That is basically our role, enforcing the minimum standards.

Maintaining the balance between the development of standards and what technology is out in the marketplace is always a tricky area, and the thrust of the presentation I was going to put to you was to try to explain a little bit of the history of the way it works today. It is probably true to say that in times gone by the regulator was there pushing technology into vehicles. The way it works these days is that the technology comes so quickly that it is a real challenge for a regulator to be out the front of it. Legislation moves at a certain pace, as you probably realise, and the technology goes much quicker.

What we are finding increasingly around the world is that the presence of the regulation is inhibiting the development of the technology more than we can actually get in and push it. The technology that is coming into the marketplace in Australia is coming very quickly and when this happens the case for regulating needs to be examined. What we have seen, particularly over the past 15 years, is that it has become a much more disciplined process to assess the case for regulation — you cannot just say, 'It sounds like a good idea' — which puts a fair bit of discipline among those who are developing the regulation. Also now we are finding that the nature of the technology is quite complex and that it is not simply enough to say, 'You must have this feature' in a car. You have

to be able to describe it in legislative terms, because when someone comes to me and says, 'I've got this feature in the car', I say, 'What is it that you have?'.

When you look at technologies that are available — for example, lane change or lane keep warning — you would have to ask, 'Okay. What is the benefit and how do you quantify it? How do you define it? How would you put it into regulation? How do you say that you must have it and demonstrate that you have it?'.

I just use that as an example because it pretty well applies to everything these days. Something like electronic stability control is pretty topical, and what we are seeing with that sort of technology is that it is coming into the marketplace very quickly, very rapidly, and that is always an issue for the regulator. If the market is responding, do you need to put in place regulation to deal with that if the market is going to do it much more quickly? Then you come up against the problem that if you say you must have it, what is it you have? How do you define it in legislation? Because one of the key things about regulating, particularly in the area of transport technologies, is that you need to regulate — and this is a requirement of the Council of Australian Governments as well as various international trade agreements — it has to be performance-based regulation, so you need to be able to define performance criteria for it, and that is not all that easy.

The United States has made an attempt to do that, but to this point it is the only government in the world that has tried to regulate that technology. It is at the moment the subject of comprehensive international regulation development and there is quite a lot of debate about how to do it. So it is a good example of what you need to go through to demonstrate, A, the need for it, and B, how you are actually going to manage it in practice. Does that sort of answer the basis of the question?

The CHAIR — Are you saying that the Americans are finding it difficult? I think they have put a date on it, which is by 2011 that ESCs be fitted to all vehicles, that it be mandatory, and I think the EU are going down the same path, but they have put a date of 2012 on that.

Mr ROBERTSON — That is not quite right. What is happening is an international regulation is being developed, and it is being sponsored by the United States. Under the terms of the international agreement, 'the 1998 agreement', colloquially, you need a sponsor. That has been worked through the committees that control the development of the international regulation, called a global technical regulation. I have to say there is always a little bit of tension here because if you have just one country offering a regulation, there is usually a little bit of politics behind how the regulation was developed, and then you get the other technical experts buying into it and having their say.

Having said all that, I would be confident that we would have that international regulation on the books for adoption by all signatories by mid this year. As a signatory to that agreement, which Australia will be I expect within the next month, we must subject that regulation to domestic rule making; there is no choice. It does not mean to say the regulation will happen, because if the domestic rule-making process cannot justify it, for whatever reason — either because the market has done all the work , or it is just not applicable to our situation, for example — you can never give that guarantee that it will be there, but with those caveats, once the regulation is available for adoption internationally then we must take it into our rule-making process.

Mr LEANE — So what period of time have you got to adopt that?

Mr ROBERTSON — That is a good question. I do not have the agreement in front of me because there is a period of time by which you must advise the United Nations if you are proposing not to incorporate that regulation in your domestic law, but as you would expect, we have already got preliminary work under way so that when the regulation is available, what is required then is the production of a regulation impact statement, and that gets circulated for public comment. Once that happens those comments need to be taken into account by the minister, and then the government can move to create a regulation.

Overheads shown.

Mr ROBERTSON — If you will bear with me, perhaps I can run through some of those concepts that I have just illustrated a little bit. I have to say that this presentation, as they tend to be, was prepared for the SmartDemo last year, but I will talk around a lot of the slides to give you the sense of where we are coming from. I will just put one other caveat — the department name is incorrect. The other slides have the new name expressed correctly. It is just that for some reason when you try to copy the template across the first slide does not engage.

That is the fun of it all. That is always a good slide just to illustrate where safety technology has come from. Of course these days it is not just about safety, it is about emissions as well and about anti-theft and consumer awareness.

The basic objects of the Australian design rules are to make vehicles safe to use, to make them environmentally friendly, and to advise consumers where it is appropriate to do so — for example, on fuel consumption, and to make vehicles secure, I should add.

That is just a bit of a history of some of the key points in technology. You notice with regulators, most of these were not even considering the regulation until we started to get to the 1960s. The technology had already started to develop fairly significantly. What you see there as we move up through the 1970s — we see a lot of the regulation concerned with restraint use. And as we go up into the 1990s and the early 2000 period, a lot of the technology is around occupant protection. And what we will be seeing as we move through the presentation a little bit is that a lot of the emphasis now is moving towards that phase before a collision might occur.

So you are probably familiar, if you have seen other presentations, with the idea that you have pre-collision and post-accident issues to deal with, including the amount of time it takes to get to a victim. But that is a particularly good little slide just to be illustrative because it does cover a range of sensory-type technology. The definition of ITS — they are onboard systems that utilise information received from direct sensing or telecommunications via infrastructure or another road source. It took a long while to get to.

The reference to WP.29, as I will explain shortly, is a relevant committee of the United Nations Economic Commission for Europe, which is responsible for administering the various agreements relating to vehicle standards. I stress right from the outset that although that is in the UNECE, this is an international committee, which makes it somewhat unique. It is headquartered in Geneva for pragmatic and historical purposes, but when we talk about standards development and harmonising with Europe and the like, we are actually talking about an international process; it is not Europe.

This is a nice little slide that I took out of the Society of Automotive Engineers Australasia publication some time back. It is a very good way of demonstrating some of the systems that are coming on board. I think in that article Evan tried to estimate where you are going to get the biggest benefit. That is always a hard one. You would be familiar probably by now with the history of anti-lock brake systems, which when they were first coming onto the market were heralded as the silver bullet in road safety and it was said that they all do all sorts of wonderful things. It has proved to be a most remarkable technology, and yet in the marketplace it has not shown up as being a significant contributor to road safety.

But, having said all that, we have various systems running through your cars, from navigation systems through to night vision, parking control sensors, speed limit assisters, working all the way up through to electronic stability control, drowsy detection systems, which are coming onto the market, and the emergency braking collision avoidance systems. You can see they have put it on a continuum there that covers the range of interventions that start off with assistance and information through to active intervention.

I would just say a word about how the regulator has to deal with this, because we have well and truly now — for all countries — gone past the point where countries can just go it alone in these sorts of things. Vehicles are very complex. The volume of vehicles that go around the market and their technical complexity — when you have a small market like Australia's, where I think we are now at the point where almost three-quarters of our vehicle fleet are imports, it is no longer the case that you can just decide that this is a good idea and we will worry about Holden and Ford and that is all we have to think about.

I mentioned earlier that technology was a significant driver rather than the regulators. If I had a gift for caricature I would draw a comic of the regulator carrying all these things that have been fired at them. It is very quick. I used to work in the communications industry, and it was the same sort of issue there. People find uses for the technology as it becomes available, and the regulations very quickly become out of step. And it is very difficult for a market to operate like that. What we are finding increasingly is that the regulations, some of which have histories going back 30 years, just simply did not foresee the availability of technology, and you find that you are trying to put it into the market and the regulations are stopping it.

I can give you a very good example there — bend lighting; it is adaptive front lighting. The market for that technology was moving very quickly, and we had vehicles arriving here in Australia with it. But the Australian

design rules did not allow it. It is because they are old; they are out of date. So we had to move very quickly to make sure that the regulation could match the availability of the technology.

Mr LEANE — Why was it not acceptable to the Australian Design Rules?

Mr ROBERTSON — It was not so much that there was an intention to make it unacceptable, it was just that the technology was not foreseen. So it required that the headlight had to be fixed.

Mr LEANE — I would have thought that, like most standards, they are minimum standards, and if you can improve on it, you should not have an issue. That is why I am bit confused about why — you are saying regulation can impede the progress of technology coming in, when I would say that there would be a more than efficient argument to say, 'We have reached the design rules. We have actually superseded them', and so it should not be impeded.

Mr ROBERTSON — Yes. I will touch on that concept a little bit when I get into the concept of performance-based regulation.

Trade considerations — international agreements and harmonisation of standards. Harmonisation is very important for industry. There is a trade dimension in automotive product. I need also to talk about the mutual recognition concept, because often the cost to a manufacturer is not just in building a vehicle and having harmonised standards; the cost is often in testing and getting access to other markets, which is a fairly important consideration for our own domestic producers. They need to consider global test facility requirements. The way it works these days is that, as soon as an international regulation is available, all of the test facilities globally will gear up to test to the latest standard of that regulation. So if you have a regulation that is out of date, getting your car in to get tested will be very, very difficult, which means that nationally you need to have processes move very quickly as soon as the international process does its thing.

We used to have quite a cumbersome process in Australia that required a lot of public consultation. Then we had a voting process among all of the officials at state level, then a formal voting process among the transport ministers. That was taking something like nine months to a year longer than it needed to, to make a regulation happen. And that was justified initially on the basis that it was inclusive and got everybody into it; everyone agreed. If there were any problems, you would sort them out. The problem is nowadays you cannot afford that amount of time.

Most countries now have robust processes aimed at keeping regulatory intervention to a minimum, as we do in Australia. The issue of regulation is exercised by governments, and you would be familiar with that. Increasingly it is getting to be a focus. Of course, if you balance that against various lobby groups that want to go to regulatory intervention — they can be environmental groups, roads safety groups, people pushing a particular technology — and for that reason it is necessary to consider broader alternative approaches to regulation.

What this slide does is illustrate a little bit about the international dimension. I mentioned WP.29 and what it does. It administers three agreements, two of which are important to us; the other one is quite Europe specific. It defines the process by which what we call UNECE regulations are developed, with which the ADRs are harmonised. So when an UNECE regulation comes on stream, we kick in the process to make the ADR harmonise with it, if it is applicable. Sometimes it is not applicable. There might be UNECE regulations that were designed to facilitate the use of tractors in Eastern Europe or something like that — clearly not applicable to us.

It is illustrative because you will see on the left under the 1958 agreement that the ADRs, Japanese industrial standards and the European Union directives were in the process of harmonisation with the UNECE regulations. Europe has now bitten the bullet and they are no longer going to do EU directives but UNECE regulations.

You will notice on the right there is another agreement, the 1998 global agreement and you will see the arrows running down the middle. Australia is a signatory to the 1958 agreement and we will shortly be a signatory to the 1998 agreement. The United States and Canada are signatories only to 1998. In fact that agreement was established so the United States and Canada could come to the table. That is the patent international regulation-making process. It is through that agreement that the regulation on electronic stability control has been developed. That should be up for a vote in the June session of that committee.

The reason you have that extra agreement is that the 1958 agreement is not only concerned with the development of standards but it has a mutual recognition component to it such that once you adopt the standard and agree to be

bound by it you must accept product that reaches that standard. Also if you certify that product and issue an approval domestically other markets that are signatories to that agreement must accept that approval, which is quite critical to a vehicle manufacturer. Imagine that you are trying to tap other markets: it is a big cost if you have to keep meeting standards they might just dream up, and if you have to test several times it can make it cost prohibitive.

A good example was getting the Holden Statesman into the Korean market. That was possible because the Korean government was prepared to accept the certification and testing that had been done for the Australian market. Had that not been the case you would have had difficulty getting the vehicle in. As you can imagine for our domestic manufacturers, a large part of their future viability will be based around developing their export potential. That is a fairly critical agreement provision.

The 1998 agreement was developed because the United States and Canada have a self-certification regime, which means they cannot participate in the 1958 agreement. You will notice there are a number of committees that sit underneath. Whatever regulation is developed it goes through a committee phase, whether it is brakes and running gear or passive safety. That is how the optimal protection regulations are developed; plus a number of ad hoc groups that you see at the top whose work picks up various motor research activities that are going on among the signatories.

I mentioned that just about every country nowadays has a process for justifying the need for regulation. The United States process is very complex. In Australia the process was set by the Council of Australian Governments and it ties the federal government and all the states. The reason I put 'Body chaired by the Prime Minister', I know you know what that is, but I put that in for the benefit of people who might be from overseas and not know, and administered by the Office of Best Practice Regulation and the procedural framework running by ministerial councils so it does bind ministerial councils.

The comment I make about it is that while the principles have been there since 1994 with a little bit of refinement, they have not changed substantially, but what has changed is the extent to which the discipline has crystallised. At the federal level the Office of Best Practice Regulation is charged for making sure that when regulation is developed those processes are adhered to and properly justified.

These are the basic objectives outlined in the COAG principles. We want minimum impact on competition, predictable outcomes, and a role for international standards. We need to take into account the WTO requirements. We also have other issues such as we have APEC obligations. We have a mutual recognition arrangement with New Zealand — the Trans-Tasman mutual recognition arrangement — technical barriers to trade agreements, and the 1958 and 1998 agreements that I mentioned. We also have a very important requirement for regulations to be performance-based. That is set out in the technical barriers to the trade agreement and also in the COAG principles. For example, what that means is when you are setting the braking regulation, we do not tell manufacturers how to design their braking systems, but we do tell them that the vehicle has to be able to stop in a certain time, do it in a straight line, do it repeatedly and if it has ABS it has to be able to do it on various friction surfaces.

Similarly with occupant protection, we do not tell the manufacturer how to design the vehicle or whether it has to have airbags, but if they choose to put airbags in the vehicle to make it better, that is fine. But what we are actually measuring is the impact on the occupant, so however they do it, that is their business. The other bits are to ensure regulatory review of regulations and ensure regulations are flexible.

The CHAIR — How do you then come to that conclusion that you say, 'This is what we want', and not give details to manufacturers as to how they comply? How do you come to the conclusion that that is what the requirements should be?

Mr ROBERTSON — We certainly tell the manufacturers what they have to comply with, because you set very detailed performance standards. So in the case of optimal protection regulation you set very detailed standards that have to be met for an instrumental dummy plus other bits around the edges like making sure the doors do not open and there is no fuel spill or stuff like that. How the manufacturer actually achieves that is a combination of the structure of the vehicle and what collision avoidance systems are built in to prepare an occupant before a collision is imminent. That is starting to come into the market with the very advanced vehicles. At the moment they may or may not use airbags or they may use some other technology out there that we are not aware of

that might even be better, but the regulation is designed to facilitate that. So as long as the occupant is protected to a certain degree the manufacturer can design the vehicle the best way the technology enables them to.

Referring now to the COAG principles and what is required in the regulatory impact statement — the definition of the problem, demonstration of the need to regulate, detailed quantification of costs and benefits, working your way through all the non-regulatory options, the impact on competition, the public consultation process and, as I mentioned, it is administered by the Office of Best Practice Regulation.

Some of this is coming out of what was discussed in WP.29 and most of this discussion is built around the concept of intelligent transport systems. I guess it is almost synonymous with advanced vehicle systems because they are all intelligent in one way or another. The first one we kept hitting on is will the regulation inhibit the technology? That is one of the reasons they are performance-based so that you do not put prescriptive requirements that can very easily be put out of date. That is the criticism of the United States regulation on electronic stability control. Because while they have made their best efforts to develop a performance test which is a swerve and recover manoeuvre, it is not a robot. A vehicle can meet that if it is particularly well designed without electronic stability control, so then you have to start putting your prescriptive requirements, for example, what is it that you have to have if you have ESC. That is a problem for the manufacturers because they argue that is design restrictive and will inhibit technology. While I cannot give you a specific example at the moment, what we are seeing at various points is that we are spending a lot of time now on amending regulation to undo parts of the regulation that did not envisage technology and it is putting a stop on its penetration into the market.

We also looked at whether it is too complex to regulate. That is one of the things that is an issue for regulators. Will the market do it by itself? Look at the anti-lock braking systems; it is very rare these days to buy a vehicle without ABS. It is very rare to buy a vehicle without at least two airbags and increasingly four airbags, and often six or seven airbags are becoming the norm. Shortly it will be very difficult to buy a vehicle without electronic stability control.

Just going back to the beginning of 2006, about 20 per cent of the vehicles in the market were sold with ESC as standard equipment, but by the middle of last year we are looking at 34 per cent to 35 per cent and at the end of last year we were approaching 50 per cent, with 70 per cent having it available either as a standard or an option.

Mr WELLER — What judgement do you use when you say, 'Will the market do it'. The market may well get to 90 per cent, so do you think it is still worthwhile regulating for the last 10 per cent, or do you say, 'We will accept that 10 per cent of cars will not have ESC'?

Mr ROBERTSON — Could do, but that is a judgement for the law-makers. A good example is that in the United States when they assessed the case for electronic stability control they assessed it on the basis of what the market would not do. They went to the manufacturers and the manufacturers advised them that there would be market penetration up to a certain amount and then there would be a gap and they based their cost benefit on that gap.

If the regulator did not intervene there would be this gap in the market where vehicles would not be provided with ESC and they worked out the cost benefit: how many lives were saved on that gap. In Australia the manufacturers are telling us they can get 100 per cent by about 2012, so you have to weigh that up.

Mr WELLER — You are saying that the manufacturers are telling you that in Australia all the new vehicles sold in 2012 will have ESC?

Mr ROBERTSON — All passenger vehicles and SUVs. That is the way it is working. Will the market do it? I have mentioned how does the regulator keep up and is the technology desirable? That is the other issue that I know the committee has looked at in the past with driver distraction issues. Conceivably technology can look very good on its face, but it may have a disbenefit that we have not actually foreseen. The hard part is that we do not know about that. But if you have the range of systems that are in cars these days, just with driver alerts you have so many things beeping and buzzing at you, will that overload the navigation systems — all that sort of thing. We often have debates over the Bluetooth technology. Some people argue strongly that Bluetooth technology should be in all cars, but others will say, 'Hang on, why do you want to be encouraging people to use telephones in cars even though they are hands-free?'. It is not an easy one.

Daytime running lamps is another one where you get a lot of debate. You could argue there may be a benefit in the greater conspicuousness of a vehicle, a car in particular, but the vulnerable road users, the motorcyclists and pedestrians, may be placed at a disadvantage. For that reason the Japanese government has outlawed daytime running lamps. We had a brief flirtation in this country with headlights on for motorcycles in the mid-1990s and that was very controversial.

I will run through these slides quickly because there are quite a few of them. They are really just to illustrate how to capture a lot of the technologies that are coming in thick and fast as a concept. This is how it was attempted to do it in WP.29. Most of this work was done by the Japanese government. What they reasoned was that you had a whole variety of systems coming in that start with information collection. That could be as simple as your new computer black box that records the details of the vehicle, and if it has been in an accident it can give information to data collectors. The systems that help the driver could be information support like navigation systems or warning systems, and systems that have proven to be reasonably controversial such as takeover control of the vehicle. We are starting to see systems in the marketplace that on sensing an accident start to place pressure on the brake pedal. Ultimately you could even get systems that take over the driving of the vehicle and take it out of the hands of the driver. We are not there yet, but that is possible.

I will not labour the examples here because we will be here all day looking at slides. You can see the information systems that are out there in the marketplace at the moment. That raises a whole series of issues about use of the technology for radio frequency spectrum access. We have had issues and have not being able to get some vehicles into the market in Australia because we have problems with the spectrum alignment and we had to resolve that before the technology was available. You see systems mentioned such as the lane keep support, side obstacle advisory systems and various navigation and parking systems.

Mr MULDER — Has there been any work conducted by the department in relation to level crossing safety and the ability of trains to talk to approaching cars or that type of technology that they have in the Burnley-Domain tunnels?

Mr ROBERTSON — Not within the department, although its recognised potential is an issue. I know the National Transport Commission is looking at issues associated with rail safety; it is on their work program. You will recall — was it 12 months ago — we had a serious rail accident. I am not aware of any specific projects though.

These are a few more of those technologies. These ones you are familiar with, no doubt: ABS, traction assistance, electronic stability control — you will notice that electronic stability control has an awful lot of acronyms that go with it — and roll stability, particularly the heavy vehicles. There are control systems, suspension adjustments and adaptive head restraints. That is fairly topical at the moment because of the global technical regulation under development for head restraint systems. Believe it or not, it is actually quite controversial. Again, you have to be very careful in developing the regulation not to make it difficult for vehicle designers to improve the technology. Adaptive head restraints are fairly recent. Intelligent deployment of airbags, and pedestrian safety — another growing area. We have put in automatic drive and convoy pilot systems because they actually do exist and there is a video that I sometimes use with this presentation, but videos are always fraught with difficulty and they hinder PowerPoint presentations. Also, other alternative controls.

A good example of an amendment to regulations that was necessary was to allow steer by wire because the regulation as it existed required a mechanical connection. It no longer does. And, of course, you have a range of technologies coming into the environmental side of the equation. There is the tweel, another technology that is on its way.

Fuel cells: you probably would have seen fuel cell vehicles before in the Prius hybrid. The Prius is a pretty good example of another requirement to amend the regulations. One of the most complex regulations is the motor vehicle braking regulation. We had to move very quickly to update the international regulation because the Prius uses a regenerative braking system. There was no provision in the ADR at the time so we had to do that to get the vehicle into the marketplace. I mentioned steer by wire and alternative controls when referring to the photos.

The challenge for the international rule makers is to recognise the appropriate regulatory response. In other words, do you do anything? Do you try to capture it? Do you try to promote it? Do you leave it to the market? What do you do? It is a global issue, it is not just one for individual countries. One of their key parts identifies not just about

the vehicle but also considers the interaction between the vehicle and technology through human machine interface. I know that you looked at that once before in one of your other committees.

This is just a bit of a list of some of the positives and negatives. I will not labour them, but as you can imagine there is a potential downside with everything. Information collection can be good, but there is also the potential for distraction. There are issues with format and compatibility of systems. That is a good one — compatibility of systems. This is a list of the protocols that are in the marketplace — it is probably about two years old now — for dealing with automatic crash notification. You will see you have got the number of carriers, the number of original equipment manufacturers — 60 protocols just in the first one — lots of black box manufacturers, 3200 protocols. It seems to us we need to ask is there a need for standardisation in that sort of system or do you just leave it be?

This is just a list of some of the regulations that are affected to illustrate the point that whenever a new technology comes in there is quite an overhead in picking through the regulations to see if there is going to be an issue. Bear in mind with regulations nowadays, if you look at the Australian design rules going back even as little as 10 years ago you could probably fit them in a folder about this big. Now if you stood them on the floor they would be about that high. Half of those are just lighting regulations alone. They do get into quite a degree of complexity.

It is the same with driving assistance — there are pluses and minuses in there. It affects the number of regulations — and standards, I should say, in addition to regulations. It is the same with assistance — positives and negatives.

One of the ones that is a bit of an unknown is the overconfidence issue. That is certainly a concern with technologies like electronic stability control. There was quite a good little article in the most recent edition of *Wheels* magazine. One of the journos decided to push a car a little bit too hard to see what it could do, expecting the ESC to kick in, and he rolled the car. The overconfidence factor is always there. Having said that, the overconfidence factor was used as an argument many years ago against the introduction of seatbelts.

Again, more regulations. I know this probably will not mean much to you. Those numbers mean a lot to me unfortunately. They are a bit stress inducing. Of course the automatic drive systems have their own issues as well — and alternative control.

We come back again to those basic questions that bedevil the regulator. If you try to intervene, will it inhibit the technology? Is the technology intrinsically too complex to regulate? Will the market do it by itself? Systems come and go. Lane-keep supports have an interesting history. That looked pretty good to start with. The intention behind it is a bit of an anti-drowse mechanism rather than just to keep you in the lane. The interface part of it was very interesting too. I know that in Renault's case the designers spent a lot of time trying to work out what is the best way of alerting the driver when you have got a lane-keep issue. When you have got so many things beeping and buzzing at you, how do you do it? They actually came up with a rumble concept in the seat. As you are about to drift over to the left the left side of the seat will rumble like a simulated rumble strip. How does the regulator keep apace, and is a technology desirable and how do you know? They are some of my issues.

Just to sum up, the regulator maintains a balance between pushing the technology into the marketplace and staying out of its way. There is lots of pressure to justify regulation. We have a new government and we have a department that has specifically got deregulation in the name and a government that is very concerned to ensure that costs are kept down on business. Technologies are complex. You need very quick processes to be able to deal with it. How to balance that speed with proper assessment and proper consultation is a challenge. I think that is about it.

Mr LEANE — Can I just ask a question on technology that I have not noticed in other submissions — LED headlights?

Mr ROBERTSON — LED headlamps.

Mr LEANE — I would not have thought they would admit enough light for you to be able to see on the road. Why has that been developed? Do you know the background behind why it would be a positive or a negative thing?

Mr ROBERTSON — There are a couple of issues with that, and I will digress a little bit. A good example is that traditionally headlight regulation has been built around the concept of having a light source sitting in the lamp and a parabolic reflector in there, but these days the light source might not actually be in the lamp; it

could be remote — a distributed light source. With LED headlamps it is just another technology. It is quite low energy for the output. That is becoming more of an issue these days. Something that I mentioned before was daytime running lamps. If all cars have got their lights on all the time it uses more energy, and in an era where people are very conscious of energy consumption you have got an issue there. LED headlamps are quite effective for good energy. I also have to say there could be a bit of marketing in there as well, but the point is that if they do the job is there any reason not to permit them?

The CHAIR — It is sort of obvious that you are much more in favour of market forces than regulation. Do you make use of other organisations that could twist the arms of manufacturers to change — for example, ANCAP, AAA and others? Do you liaise with these organisations or is there a funding arrangement between the federal government and these organisations that would assist you in making sure the market forces do the work rather than regulation?

Mr ROBERTSON — Yes, that is a good question to ask. First of all, I am not, as an individual, expressing any particular view or being in favour of anything. All I can do is outline what the government's processes are to demonstrate the need, because you have a lot of pressures and we have to follow due process; that is what the government requires. There are all kinds of mechanisms to exert pressures. A lot of them are unseen because you can imagine that ministers, governments, have regular meetings with vehicle manufacturers and make it clear what the community expectation might be. I know the manufacturers do take note of that, and it is quite a community in the area as well. We have very good relationships with the AAA and other government departments; they all come together to form the National Road Safety Strategy, so the information is well communicated and the process is both structured and unstructured.

Mr LEANE — Can I just go back to the previous point about minimum standards and the point you are making that regulation may impede the introduction of new technology. Is there a need to review the way the regulations work in that aspect so that that could be a positive thing?

Mr ROBERTSON — Yes, I think the short answer to that is the requirement for regulations; that concept is built in to the COAG requirements for developing regulation, particularly the need for regulations to be performance-based, so that you do not inadvertently put in a requirement — at least not knowingly — that may mean that a new technology is not able to be supplied to the market, because often you do not know what the new technology might be. That is a large part of the challenge and the regulations historically, when they are developed, often are developed by technical experts who have a particular concept in mind, and they have got in their mind the technology and how it works. Even if it is not intended, they tend to build the words around something that is in their mind.

Mr LEANE — I suppose for review if someone produced something over and above what that technology required, then if the review was that that should not impede, to any great degree, the introduction of that technology, that could be a good thing?

Mr ROBERTSON — Yes, presuming you accept that the technology is a good thing.

Mr WELLER — Peter, the writing or the review of an ADR consistently takes 10 years, making the relevance of the new vehicle safety technology largely redundant. How can the safety relevance of ADRs be maintained?

Mr ROBERTSON — I am not quite sure where the 10-year figure comes from. A good example would be global technical regulations on electronic stability control; if that is voted in, in June, then the regulation impact statement will be done and the regulation will probably be gazetted by December. I do not know where the 10-year figure comes from. There is a lot of scuttlebutt out there in the wider community about how long regulations take. We are not, believe it or not, behind the rest of the world, although for some reason we do deliberately stage introduction of ADRs. For example, in the emissions area we have a fuel quality issue; we have had for a while, so that sort of dictated the timing for the regulations.

In the heavy vehicles sector the issues there are a lot more complex because we have product here that may need to be matched up between prime movers and trailers that come from European, United States and Japanese markets, and there are complex issues to work through there, so often that may mean that deciding on the best method of regulation can take time. But typically for a passenger car it would not take 10 years to develop an ADR. An ADR

happens pretty well straight away because the international standard determines it. As soon as it is available you can go for it.

Mr TREZISE — How often do you review the ADRs then?

Mr ROBERTSON — The ADRs are under constant review. We have been reviewing the ADRs — we started in 1998, I think — and we are working through regulation by regulation to re-establish the need for it under the current process. In some cases that meant no change; in some cases it meant we got rid of ADRs; in other cases there were quite substantial changes.

The CHAIR — So what vehicle safety research is the department undertaking this year?

Mr ROBERTSON — The department's research efforts, as best we can, are coordinated with our international colleagues. That simply reflects the fact that it is an expensive business and you can lever resources from other countries, and you can also do it in a coordinated way so you are not wasting resources by directing your efforts in disparate ways.

In the current year we are still continuing to contribute to research into side impact protection. We are the chair of a working group that reports ultimately to the developers of regulations in WP.29. We continue to contribute to work on vehicle compatibility, which is probably the more tricky area because it is exceedingly difficult to develop a regulation for crashing two vehicles together, when you consider the range of variables. That is a classic example. Is it too hard to regulate? Possibly, but efforts are still continuing to try to find ways to design vehicles so that their interaction with other vehicles will be better than they otherwise might be.

We are also contributing to research into child restraint protection at the moment. That is a fairly critical area in Australia because that is one of our unique regulations, and we feel we cannot move to harmonise it with the UNECE standard at this point because the issue is matching the actual restraint — baby capsules and seats that are in the Australian market — with the anchorage systems, so we need a bit more work there.

We also contribute to pedestrian research when there is a project that we can fund and other good ideas that come up at the time. We will assess the case if somebody is doing work and we can contribute to it. We will look at the opportunity and assess our budget and see what investment we can make.

The CHAIR — Just in relation to the intelligent speed adaptation technology — that obviously requires some infrastructure work. In terms of that and the importance of this technology, is the department looking at doing further infrastructure work to accommodate this new technology?

Mr ROBERTSON — I could not answer that at this stage, because we do not have any active projects on hand that I am aware of — there may be other areas of the department that have been exploring it that I have not had any contact with. But on the general issue of infrastructure projects, I would not be able to say what projects would happen or what would not, because it is partly not my area, but if there was work to be undertaken, I am sure that would be put in a list of priorities and that would be one for the minister to consider.

Mr WELLER — Despecification of cars coming into Australia has now been identified as a problem. Where does the department stand on that?

Mr ROBERTSON — I guess the first point is that, as I mentioned before, we are a regulator; we deal with standards. What I would say as a comment is that on something like that it is worthwhile putting an investment into getting the facts. Despecification conjures up an image of people pulling equipment out of vehicles destined for the Australian market, but I did get some people to look at that fairly comprehensively a couple of years ago, and it is not accurate really to infer that Australia is particularly hardly done by with despecification of vehicles. If you look, for example, even at markets within Europe, if you look at a technology a lot like electronic stability control, you will see there is a very significant variation between countries within Europe — such as Ireland, England, Portugal, Spain, Italy, Germany — with what specifications are offered in individual vehicles.

Because for the manufacturer their decision is based on, 'We have to be able to sell a vehicle in a particular market at a particular price', so they option it accordingly. In Australia, if you look at key vehicles like the Holden Astra and the Ford Focus, these are vehicles where you might find a bit of variation around the edges by and large. You can get on vehicles here any feature that you might get elsewhere. In fact most of our vehicles are specified more

highly than, say, the similar model in the United States and equally as well as in most markets in Europe. Bear in mind that in certain markets like the UK the Astras and Focuses are family cars, so you have got a much wider variety of vehicles and options in them, but you pay for it as well.

Mr WELLER — But that is not the case with the likes of the Toyota Corolla with ESC?

Mr ROBERTSON — I think the Corolla was probably a special case, in that they had to develop the actual model differently for the Australian market — the suspension system. But that is one for Toyota. We will have to wait for them to catch up, I guess.

Mr LANGDON — You said you reviewed this in an earlier investigation. When was that investigation?

Mr ROBERTSON — It was about two years ago. I think one of the key things to bear in mind is that it is very difficult to make that assessment of despecification without building price into the equation. Those examples I gave, of Astras and Focuses, compared to what you would pay, say, in England for a similar model — Australian variants are very cheap.

Mr LANGDON — Is that available for the community to look at, that investigation?

Mr ROBERTSON — Look, I would be happy to give that information to the committee. It is a couple of years old now, in which case it is out of date, particularly on the Astra and Focus-type analysis, but it does illustrate the point that you do get what you pay for, but also that there is a significant variation between markets, even in Europe. So it is not accurate to say that cars are despecified for this market whereas they are not for the European market, because the European market is very different in itself.

Mr KOCH — Peter, the specifications of second-hand vehicles that are imported to Australia — where do you sit in relation to road safety on these, because on our recent study tour it was very evident in Japan, with the turnover of motor vehicles and the like on Japanese soil of those vehicles, a lot of those vehicles were ending up on our shores. In many cases I believe their specifications were bordering on short of the mark, yet it is still an acceptable situation that they can flow through freely. Where do you sit in relation to this?

Mr ROBERTSON — That is an excellent question. I think many of the importers of the vehicles would argue that the vehicles are very significantly specified — I am not saying I agree with them. It has been a very significant issue for the government, setting in place a regulatory regime for imported used vehicles. I mentioned earlier when I talked about the objects of the Motor Vehicle Standards Act that one of them was to regulate used imported vehicles, because we had to make a very significant amendment to the act to do so. I have to say it has been a fairly significant political issue.

To give you a little bit of background, since the Motor Vehicle Standards Act was developed in 1989 an administrative scheme was developed to allow the importation — or even the local manufacturer; a factory like Bolwell is a good example; they would not be available if they came through the normal manufacturer. Say, for example, you wanted a Ford Mustang or a Corvette or something like that for the enthusiast market, then there should be a mechanism to do that. That is what the government felt, and a mechanism was developed. Up until about 1991 or 1992 they were primarily American vehicles — the muscle cars and pickups. From about 1992 onwards the vehicles started to become more Japanese in origin, and it got to the point where the number was doubling every year. So it started off with something like about 600 or 700 vehicles in the market, then 1500, 3000, 6000, 12 000, and by the time it got to about the year 2000 it was growing exponentially. We were up pushing nearly 20 000 in the market and growing rapidly.

The government set in place a new scheme in the year 2000 — it kicked in in 2002 — to regulate what we call 'low-volume vehicles'. That included new vehicles, which are quite a small number, actually. The main one is used imported vehicles, and probably the vast proportion of them are Japanese for the reason you mentioned — because once a vehicle gets to about five years old in Japan, it is basically non-registrable, and there are very significant profits available in exporting them to other countries, particularly somewhere like Australia. It is basic economics. When you get those sorts of margins, the product will start to increase until the margin becomes normalised, as it were.

That was really the issue, so the government attacked it in two ways. The first was through developing more stringent criteria for determining whether a vehicle is eligible to be imported. That remains the case. For example,

you cannot just bring any car in. If the Ford Mustang is available here in Australia because Ford is producing it and wearing all the costs associated with testing, then the vehicle is not eligible, but a Chevrolet Corvette might be because there is no Chevrolet Corvette in the Australian market. That can be a new or used vehicle.

If it is a used vehicle, it needs to go through what is called the Registered Automotive Workshop Scheme, which is a regime under which certain entities are allowed to establish a workshop to convert and test vehicles. The testing regimes are concessionary — in other words, you do not necessarily have to crash test a car because that would just make it unviable, and the numbers are limited. So each workshop can do 100 vehicles a year within a particular vehicle category. It was quite controversial because first of all the eligibility criteria restricted models that used to be available, and the workshop scheme is quite stringent; it is costly to get into, and it is administered fairly rigorously.

I come back to your question about how you deal with the safety of these things. The workshop scheme is stringently administered — I think much to the irritation of the people who are in it — but the key requirement is that the vehicles must be demonstrated to meet the ADRs that were applicable at the time they were built. So in another words, if you have got a 1998 vehicle, it has to be able to demonstrate compliance with the Australian Design Rules that were applicable in 1998. That could mean it will not have any greater standard of specification than the other vehicle, but it might go the other way. What we are starting to see now is that as the traditional vehicles, your Nissan Skylines and the like, are not coming in in the numbers they used to, other vehicles are coming into the marketplace that tend to be luxury Japanese passenger cars — not a lot of them, but they tend to be more highly specified. But again, if they are a older vehicle, they are by definition going to be something like five to eight years in general and have the technology applicable at the time.

The CHAIR — Okay, thank you very much for your submission.

Witness withdrew.