ROAD SAFETY COMMITTEE

Inquiry into driver distraction

Melbourne — 30 January 2006

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Mr B. Stafford, executive director, ITS Australia.

The CHAIR — We would like to welcome Brent Stafford, executive director of ITS Australia. We operate under parliamentary privilege, so what you say today cannot be used legally against you in the future. The hearing is being recorded by Hansard, and a copy of the transcript will be provided if required and also posted on the World Wide Web. Thank you for your time and input. I hand over to you for your submission.

Overheads shown.

Mr STAFFORD — Thank you very much, Chair. Today I would like to give a high-level overview of intelligent transport systems and their relevance to driver distraction. I have got quite a few slides to present today, but I will roll through them quite rapidly. Of course feel free to pull me up at any stage to ask for detail. By way of background, in an Australian context obviously we are well aware of congestion and road safety impacts, and counterparts have already spoken about some of these details. Not only do we kill five people a day on Australian roads, but we have about the third highest vehicle theft rate per capita in the world. So there are lots of opportunities for transport technologies.

We see an increased emphasis on intelligent transport systems (ITS) and their relevance and application to terrorism. However, if we compare the global toll of terrorism — 2000 deaths per annum — with the global road toll — 1.2 million people die and in excess of approximately 34 million people are injured each year around the world — it is obvious the issue is topical and relevant, and ITS Australia welcomes the committee's investigation into elements of road safety, including driver distraction. Our horrific road toll includes over 163 000 children under the age of 15 dying on roads around the world each year. We really need to look at all opportunities to address these issues. Very simply, intelligent transport systems are the application of modern information and communication technologies to transport. ITS can save lives, time and money and reduce congestion and the environmental impact of transport. In common parlance today the new term is information and communications technology, and the Victorian, federal and most state governments place a high emphasis in their ICT programs on intelligent transport systems and subsector activities.

By way of background, I spent 10 years with Victoria Police on motorcycles, so I am very aware of the real implication of road safety from a personal perspective. Following on from that I worked at Robert Bosch (Australia) in car navigation, and subsequently at Pacific Access, which is now called Sensis, on the commercialisation of car navigation map databases to most Australian automotive companies and importers such as BMW, Mercedes, Lexus et cetera.

I have now spent five years with Intelligent Transport Systems Australia, which is the peak sector body representing the interests of this application of technology to transport. We have been around since 1992 and aim to foster the better development of safer, more secure and more sustainable transport systems where relevant through the application of this technology. Recently we completed the implementation of e-transport, the national strategy for ITS in Australia, and we are working with many inquiries and committees on the application of ITS. That is my expert domain.

We are currently hosting, in conjunction with the Australian Electrical and Electronic Manufacturers Association, the Australian Telematics Industry Collaborative Cluster, which seeks to harness the advancements of this technology and also raises driver distraction and other issues such as interoperability, which I will explain later, as critical areas for work programs. We host the Victorian ITS networks and work with Invest Australia and Austrade on taking our technologies from Australia to the global market. Recently we announced the launch of an ITS national centre of excellence hosted in Victoria as a result of a contribution from the Victorian government. This is part of a broader global network of some 60 ITS organisations around the world.

In a broad context ITS can be used in a positive fashion to monitor the condition of a driver whilst driving, including fatigue detection, over-speed warning, lane departure warning and soon a base level of driver distraction monitoring. ITS can assist drivers where their skill level is not up to speed or where the circumstances surrounding the driving pattern or driver behaviour exceed the ability of the vehicle or the driver for electronic stability program, broadly known as electronic stability control and ABS brake assist suspension control. Many of these developments occurred some 10 or 15 years ago in the ITS domain, and we are now looking at a new generation of technology to assist this driver task.

In a broad context search that the program obviously will have investigated already, Google shows 161 000 results for driver distraction. If we compare that for the global link of drink or drunk-driving we see 3.8 million hits on

Google, which is always a valuable benchmarking exercise to see how topical an issue is. On the ITS web site we have 100 results for driver distraction from various papers and presentations that have been brought onto our knowledge management system over the last 10 years. In addition to the high-level opportunity domestic activities such as Ian Johnston and Mike Regan's program at the Monash University Accident Research Centre some valuable links are found through the European Commission with ERTICO and in the National Highway Traffic Safety Administration (NHTSA) in the USA where they have got some excellent reports available online.

I first became involved in car navigation as one element of an in-vehicle display unit in 1995 with the launch of the BMW car navigation product. Driver distraction issues were broadly examined at that time and it was found that a driver's age should be exempt. Subsequently we have seen application beyond car navigation for these in-vehicle display units with systems such as reverse sensor monitoring and driveway safety, quite a topical issue at the moment, so there is a much broader context now.

The issue was re-examined in a May communiqué with the Department of Transport and Regional Services and the Australian Transport Council where some of these issues were again introduced. We have had a look at road rules and how they apply. However, it must be noted since the road rules were changed from the Road Safety Act there has been a wholesale implementation of not only navigation but in-vehicle entertainment systems. Now from an automotive manufacturer and importer perspective we see a wholesale deployment of various display technologies in vehicles such as tour buses and airport buses. We see the dates that they were implemented, and we can compare that against the road rule changes.

Some drivers aids include car navigation systems. However, we must be cognisant of the blurred line between what is a driver's aid and what is a commercial product such as a taxi dispatch system, its application in this domain and how the driver of the vehicle interacts with that technology. Firstly I will touch on mobile phones. No doubt the Australian Telecommunications Cooperative Research Centre, the Australian Telecommunications User Group, the Australian Mobile Telecommunications Association and indeed the telcos will describe the market adoption, high penetration rates et cetera of mobile phones, and in looking through the various web sites of these groups we see references to driver distraction and some interesting policy being developed.

From an ITS perspective, however, the blurring of lines between an in-vehicle unit, which is embedded, and other devices like the mobile phone is now blurring. We see assisted GPS (AGPS) — that is, essentially having a GPS unit embedded in every phone allows every phone to become potentially an in-vehicle display unit. AGPS is rolling out in the market as we speak and will soon be in pretty much every mobile phone.

What does this mean from a market application perspective? We see products like this particular Sensis navigator product, but most manufacturers have some sort of location-based or navigation solution for mobile phones. I must say, however, that whilst complex in entering an address, once you commence driving with these devices — and I have got some examples here today that we can have a look at — they are all voice outputs; they provide instructions for the driver via voice output.

There is a lot of grey area and a lot of confusion about how most of the car navigation devices assist the driver, and whilst you could drive looking at the screen, in essence the bulk of the driving task is managed by the voice output. I would encourage the committee, if at all possible, to trial car navigation units for an extended period, not a day or a week but normally three weeks, which is where you get over the conscious competence learning curve and begin to trust and enjoy the use of the devices for what they are designed to be deployed as. We see different applications from various suppliers, be they mobile phone providers or technology vendors. There is an opportunity to examine the movement of mobile phones in the network and there are various technologies. I will not go into the technical detail, but these technologies also have a positive road safety context in that by identifying the location and speed of a mobile phone we can then extract from the network what they call floating mobile phone data to reconstruct traffic information.

Mobile phones are deployed nationally. Many of the road authorities' information is bespoke to that region. Car companies sell cars nationally. Mobile phone companies sell phones nationally. National information sets are a critical component, so we do see a technology already looking at whether the phone is moving, the type of movement and using it in a positive context. There are obviously applications to examine the movement of mobile phones.

As we encourage further mobility in transport, be it through public transport patronage or encouraging public transport patronage in policies such as Melbourne 2020, there is obviously a cost for that mobility. One good example from consumer development is a simple MP3 player. In 2005, 1.3 million of a particular product were sold in the market in Australia, and globally since 2001 that product has seen 42 million units out in the market. Pretty much all of them today are sold with an option of connecting through an in-vehicle entertainment system or car radio either via FM or a direct link. We can therefore see that how we manage policy and regulation has to now change pace to keep up with the technology. These products change about every six weeks from a global perspective, and we cannot hope to keep pace with policy in that context, so we have got to be looking forward about 5 to 10 years as to where technology may evolve to.

There is also a broad cultural issue about the way we encourage mobility and the type of services that are provided in this mobile environment. It would be interesting to examine how many people are eating 50 or 100 metres down the road as a result of going through a drive-through takeaway. There are quite broad cultural issues that flow on from this issue of enhanced mobility.

I will show figures in a moment, but there are numerous suppliers of car navigation systems. All of these products, be they mounted in the vehicle or hand-held, use voice output as the method of interacting with the driver. Nearly all of the products while moving do not allow the driver to change or input a new address or look up points of interest — these are called POIs and they include restaurants, ATMs and petrol stations et cetera. As we move forward in the real-time enablement of these systems they will include things like the cheapest fuel in the vicinity and also nearest available car parks, et cetera.

The growth of car navigation in Australia is certainly set to explode with the rapid uptake of off-board systems. We have got these broadly classified in three classes. One is the in-vehicle unit. A typical dedicated in-vehicle unit is a car navigation system. There is the newer personal on-board system, which typically mounts to the dashboard, such as these types of products here. And there is the straight off-board product as well. I will pass this around later for you to have a look at how it interacts with the driver.

We can see there that the forecast for 2006 is about 350 000 units, so there is a very rapid uptake. If we match that with the uptake of GPS and telematics units, which are in-vehicle units that connect to mobile phones and satellite receivers, we are set to see this market explode in the near term.

The devices have evolved from a simple car radio-style product, which even from day one in 1995 was a voice-driven product — that is, voice output — we have seen the products evolve quite rapidly in a plethora of new devices coming onto the market. This is where the grey area starts to emerge — whether the unit can actually input a device while driving. We really need to look at how these devices interact with the driver, and therefore whether the legislation should be left alone or modified in the future.

We see in Japan and even further the evolution of these products based on issues like congestion. If you are sitting in traffic, driver distraction from their context is obviously not a significant issue. From our perspective we would see that sort of content as being quite horrific if it were available while driving. Follow the Yellow Brick Road allows the driver to move to the next generation of navigation. It renders the buildings as 3D projects based on images from the actual road network. So there is static content, like the restaurant, that can obtained only while the vehicle is stationary, and there is dynamic content which is obtained while the vehicle is driving. From a European, North American and Australian perspective we see a vastly different and I believe a much more appropriate implementation and reduction of driver distraction in the domestic marketplace.

We believe Australia has the highest usage of street directories in the world at this stage. It is quite rare in the US to pull out a street directory from someone's glove box or from the back of a seat, like you can from almost every vehicle in Australia. Therefore the acceptance of things like car navigation technologies is probably a lot higher.

In the global context, the government in the Netherlands offers a tax offset for car navigation due to the safety benefits of reducing the driver workload. I will give an example of that in a moment. A tax or GST offset should in fact be considered for the Australian marketplace for all safety technologies that are identified as viable contributors to a increase in road safety, including electronic stability programs, side-curtain airbags and ABS. In regard to car navigation and its inherent capability in the future we believe the government fleet should in fact take a lead role, and we need therefore to look forward to managing the ADRs and the road rules proactively and not reactively. I will explain that again in a moment.

We see a driver distraction issue in the taxi industry. With that particular implementation a lot of technology is now rolled out in every taxi in Australia, which is great from a user perspective. We will see this roll into a more simplified interface with players that are global leaders, such as Sigtec and Raywood, which are based in Victoria, providing not only better access from a human-machine interaction perspective but also better access to clients within the cab. It is quite a nice implementation. All devices, whether they are windows mobiles such as these devices or car navigation systems, come with warnings that users should obey the road rules and not distract themselves from the driving task. They provide those by way of a licence and typically a push button on the initial boot-up screen; however, how much drivers obey them is really the issue.

We know the Australian road design rules are subject to a full review on a 10-year cycle to ensure that the ADRs remain relevant, cost-effective and facilitate the importation of safe vehicles and vehicle components. Obviously in the context of the rapid commercialisation of new technologies, both in the ITS base and the consumer electronics base, sets itself aside from this type of review cycle. We really need this collaboration to define where the technologies are going.

When browsing the Internet it is quite clear that even the providers have a blurred line between what might be rear-seat entertainment for a passenger or kids in the back versus the driver. This sort of demonstration should be ruled out from the way we promote these products. We see rear-seat entertainment flowing out of the market, as I explained earlier, and many examples of rear-seat entertainment — for want of a better word — are DVD systems. The cheapest system on the market today is $189. That is not the bottom of where we will see the market go to; that is the sort of price threshold at the moment at which the consumer believes they are getting a quality product for the right price. They can actually be provided for about $50 sourced out of China. So we have not seen the bottom of the market nor the fullest extent of the market penetration at this stage.

There are technologies to afford protection from external drivers. There is one technology that is protected by intellectual property patent being developed at the moment, which I cannot disclose, but it is a very simple technology that really does eliminate the driver distraction from external vehicles with these devices. It is a very low-cost technology.

The CHAIR — Is the external drivers distraction recognised as a major issue?

Mr STAFFORD — We addressed this issue, Chair, in 1995 and 1996 — some time ago, obviously. At that stage, as other devices such as drivers' aids, including taxi dispatch systems, were permitted it was seen that we had already blurred the line as to what should be seen from outside the vehicle versus inside the vehicle. It was considered early on to be an issue, and we believe it was largely resolved by the previous road safety legislation, which was then modified in the road rules to include distracting another driver — that is, a driver outside the vehicle. That is a recent change that was introduced despite industry already adopting based on previous legislation. We then did not go out to industry and say, 'This device is banned. You need to take it out of buses and cars'. So we have not really matched the two developments at this stage.

Beyond typical entertainment systems, we then move into the telematics domain and issues of driver workload, occupational health and safety, interoperability of technology and driver distraction. We see many demo vehicles that try to feature technology. If we compare this — there is a taxi in Japan that is fully laden, a taxi in Australia that is really not much different and other driver dispatch technology vehicles via a large commercial player in Melbourne — to the evolution of other technologies, such as the aviation space, we see there has been quite an elegant change whereby the driver, who in this case is the pilot, interacts with the technology. We have seen the workload change quite rapidly over the decades. We have already seen this issue in the automotive space where litigation issues are absolutely paramount to the way in which technologies are deployed in a robust, reliable and efficient fashion. We have seen the evolution of technologies such that we have a simplified interface without distracting the driver and which allows them to perform multiple tasks, and they can input the required functionality while stationary. This then goes into even smaller products.

Here we see the typical scenario of the businessman, or someone without a simplified technology, at work. This scenario of the laptop, the paperwork, the mobile phone, the fast food, the soft drink or the coffee and the street directory is a reality today. When we place an emphasis on the technology we need to look at the issue of driver distraction in its fullest context, and that is why we welcome the committee's inquiry. This scenario is unfortunately all too typical today. This is the reality of driving today. I must say on the freeway this morning — I still have a bit of an eye from being a motorcycle policeman about whether people are complying or not; it is one of

those habits that are very hard to get rid of, even 10 years later — there were 22 drivers on the Monash Freeway in peak hour between Mount Waverley and Port Melbourne using a device, and 5 of them were texting. It is a real issue that we need to resolve. Hopefully through the proper application of technology and integration of that technology into the vehicle in a sound fashion with appropriate human-machine interaction and being aware of those issues to do with driver distraction we will see some of that being resolved, particularly through the further evolution of voice interaction.

These technologies do afford other positive applications beyond car navigation, and we see new products like these driver assistance systems that provide information about school zones, school crossings and other black spot information. It is important to note, however, that these developers are again developing a national product. So to place speed zones when there are complicated changes to speed zones into the device they need to be able to coordinate through VicRoads, the RTA, the Queensland Department of Main Roads et cetera. We cannot evolve the state application of information and the data sets pertaining to things like speed zones in isolation from other states. Industry has solutions available to assist drivers managing the driver distraction task. However, they are looking to government to proactively look at the inter-operability of the information between the states, and they are then picking up on other issues, like the human-machine interface, through simplified button configurations. There has been some press around the way in which some implementations, such as iDrive, were initially deployed in the market; however, many of these are now largely resolved. Having used these, I must say that you cannot get into a car and drive on day one and be fully familiar. Like when learning to use a computer email or even fax machines, it takes time to learn how to use the technology, and it is up to the driver to try to minimise the way in which they are distracted.

The future is really positive as to way these displays, be they in-vehicle or head-up displays, can interact with the driver. We see here examples of a head-up display and voice output warning of an accident ahead. We can see heavy congestion — this is a Japanese example — around a blind corner on a freeway. The car talks to the infrastructure, which talks back to your car using things like e-tag technology or dedicated short-range communications and puts it into the in-vehicle display unit a warning you to slow down. We see also the ability to actually reduce the heavy cost of developing the infrastructure with things like speed zones and overhead gantries and placing these, in this case, in a virtual context onto the window of the car. These are not freeway signs on the infrastructure; these are freeway signs on the head-up display in the vehicle. It is quite amazing. They can tell you which lane to get into from your destination, and it flashes which lane to stay in. This is the reality of some 5 to 10 years from today. It can actually reduce the cost of maintaining and improving the infrastructure and it very much makes it a more personalised interaction with the driver. Instead of saying, 'That is the B24 road' it says, 'That is the road to John's place' or 'That is the road to your mum's place'.

Many of the OEMs — the original equipment manufacturers — or the automotive equipment manufacturers globally have the vision along with other governments around the globe of accident-free driving or zero tolerance. This is picked up through many programs, including the e-safety program in Europe, where they are actively seeking to have zero road deaths. It is a fabulous opportunity whereby industry is working in a positive fashion with suppliers to really reduce, as we did in occupational health and safety, the tolerance to zero. We can then look forward to seeing a simplified infrastructure to vehicle communications technology that will stop the car going through the red light in the first place. It will not take a photo of the car going through the red light; it will tell the car that there is a red light ahead, it is going too fast and to take control of the car and stop the vehicle. This will be reality of the ITS deployment in years to come. It will be a fantastic evolution, in much the same way as we treat occupational health and safety today. We do not put a camera on the roof of a work site; we provide the workers with restraining devices and fences et cetera. However, to fulfil the future of vehicle infrastructure integration we do need the capacity for on-board units to provide the information back to the driver.

The CHAIR — What about the ability of the technology to tell not the driver to slow down but the car to slow down?

Mr STAFFORD — We have already trialled many of those technologies, from vehicle infrastructure, infrastructure-to-vehicle and vehicle-to-vehicle perspectives. So they are the critical components of the infrastructure and the driver and vehicle communicating together to work as a package. There are solutions around. I have driven many development vehicles around the world over the past five-year period while I have been at ITS Australia and have seen this taking place. The cars stop at stop signs, and there is automated merging or automated platooning where vehicles communicate with each other so you cannot diverge when unsafe. It is like there is a boundary where you cannot just change lanes if a car is beside you, and you cannot go through a stop sign. There is

also the Monash University-Ford-TAC safe car concept with intelligent speed adaptation, whereby you cannot actually speed unless you overtly push through the throttle and speed, as we have heard from the TAC.

Many of these solutions do require, as I explained, a national approach with things like a national traffic information portal and a national phone number. We call Pizza Hut anywhere in Australia with one phone number, but if we look at the numbers for road safety information and road advisory information, such as on traffic accidents, et cetera — this is a list from some time ago — we see there are 36 to 40 different numbers. A national approach is required, and we welcome this as part of the inquiry.

For the future, therefore, we need to look at the integration of four-sided driving — things like following behind from a safe distance, providing lane support and then a second before a crash looking at collision mitigation. It also looks pre-crash at how to prepare the car, its bonnet, airbags and braking system when a collision is inevitable. This does save lives. The electronic stability program is one example of an imbedded vehicle technology reducing fatal accidents by 30 per cent. These are real technologies available.

From a national perspective it is interesting to look at the current context. This is an example of a current Commodore speedometer, but if you look at any vehicle that can travel at 220 and 260 kilometres an hour — or even the safe Volvo wagon that my wife and I drive — we see the need to look at a future where we can not only integrate speed advisory information but also realistically send the right signals to young drivers that this is what we expect of you to follow the speed limit. This is an opportunity whereby technology can assist the evolution.

From a billboard perspective and the external technologies we see the VicRoads' 10-point guide and similar guides nationally. However, we also see implementations that have somehow slipped through those regulations. Committee members may be familiar with one particular billboard in Melbourne — and there are others — that is, the one on Dandenong Road at the intersection of Burke Road which really lights up the night sky. It is a video-style system that one must say would have to be at the high end of driver distraction. So obviously it involves the external elements as well as the internal elements. It is interesting that we can interpret the legislation, the ADRs and the VicRoads' 10-point guide and see systems getting onto the market that may be questionable if you examine the guide and the reason why the guides were developed. We really need to send the right signals back to the market that it is really black and white and that these issues are not open to much interpretation.

We have seen in the US various attempts to ban billboards — I apologise for the text here. Essentially they are quite similar to the VicRoads signs with bright colours flashing — in the old parlance, that they are dazzling to drivers. Even recent attempts in 1981 brought out the fact that some of these signs — for example, variable message signs — can provide a positive contribution to road safety, which is why they have not been banned. We see fantastic implementations and the visual opportunity there, and we see other implementations by industry or government, like those advertising property, that just should not be on the road, but through a lack of enforcement people we cannot really enforce it. And we see other ones where by the time you have worked out what the sign is saying you have probably well and truly driven past. There are guidelines for the deployment of these variable message signs, and we just need to be cognisant of the guidelines when deploying the systems, as in any system evolution.

From a domestic demonstration perspective, we recently hosted an event called Smart Demo in Adelaide, in September. Approximately 300 people attended Victoria Park to look at the evolution of the technology. I have provided for the committee a copy of the CD-ROM with the press and the supportive collateral and presentations from many of the automotive companies and technology suppliers. However, whilst there are technologies such as electronic stability program, rollover prevention and a natural evolution of defence and aerospace technologies into the automotive market, we see that there are some readily apparent hotspots, such as the electronic stability program. At a very high level it is really the interaction between the vehicle, the driver and the infrastructure which will lead to safer, more secure and more efficient transport systems. Driver distraction is a critical element.

Through the support of the Victorian government's Department of Innovation, Industry and Regional Development, Minister Brumby is set to launch the national ITS centre of excellence in Port Melbourne on 27 February. This will be a large-scale showcase where we can evaluate the technologies and how they can provide positive, or otherwise, contexts to road safety, the infrastructure and the vehicles in Australia.

It is critical that we have this world-scale infrastructure to commercialise the technologies to the global market and, importantly, have a significant fleet of test vehicles, so that we are not researching 1 driver, 1 vehicle or

10 vehicles, and so that the research and industry community can have access to some real world deployment systems — a large fleet of vehicles and a traffic management centre of significant scale. We welcome the Victorian government's contribution to the development of that national centre of excellence.

With regard to technology solutions such as black box monitors or drivecam, I can show a quick drivecam video that shows an example of the technology in use. We see the vehicle start to verge off the road; a tired driver. We have examples of driver distraction where the driver has wandered off and suddenly the vehicle rolls. This type of information is now available, and it is really how we harness the potential of the technology for betterment of, in this instance, the automotive environment. There are drivecam examples of drivers being distracted by mobile phones and also one person looking at a map. The technologies are here and now and in fact are even affordable. Therefore, we need to work in collaboration with industry to assess the viability of the system.

In a trial conducted in Minnesota between October 2003 and June 2004 we saw a marked drop; 164 occurrences of high-risk behaviour in teens reduced to 8 instances once they deployed the drivecam to monitor the driver behaviour. From a distraction perspective, we saw a 50 per cent reduction in the same period. The technologies are here and now, and they are affordable. The technology for driver distraction — in-vehicle camera systems — in the future will even do things like read speed signs. They can also help assist to analyse whether the driver has in fact looked at the speed sign and is slowing down the vehicle accordingly.

We are only some years off being able to accurately monitor driver distraction through lane departure warning or, as the committee has already heard, eye close movement — or Perclose, as it is called, when somebody starts to drift off to sleep. We are also participating in a cluster activity where we bring together many important industry and government partners to look at how we can evolve that technology to afford better protection.

The European Commission has a high priority for e-safety — a new generation of vehicle safety initiatives — and is funding this initiative to the tune of €3.6 billion. We are now starting to link the domestic research and industry community under the new framework 7 program to look at the intelligent car. They are turning to Australia to look at the human-machine interaction issue. Our researchers will shortly be funded from the European Commission's funds to address this issue. Our research is in fact world-class. We are not lagging behind, but we can always improve the way in which we manage the distraction.

We are also looking at hosting the ITS world congress in Melbourne in 2010, which will see a fabulous domestic demonstration of this technology, drawing together some 7000 international experts in the field of ITS and their various technologies. That will afford us, again, a global linkage opportunity.

In summary, ITS is certainly not a panacea, and we should always not turn to technology solutions to try to solve technology problems — that is, develop a phone camera like we have a smoky vehicle camera, a speed camera, a red-light camera, a crash camera and now other products like seatbelt cameras. That may not be the solution.

Indeed, from my experience and the experience of broader ITS community, we cannot compromise on road enforcement in these areas. It is a critical component to secure safer transport. However, consistent enforcement and a national approach is required.

The police referred previously in submissions to the interpretation of the legislation, as opposed to the ADRs. These need to be corrected as a matter of priority. They are also being looked at by the Australasian Transport Council. It is unusual that we permit the use of a CB radio but not a mobile phone. It is an anomaly in the legislation. To send the right signals to the broader user group or the community, we need to make quite a profound statement for the use of these devices, irrespective of whether CBs or mobile phones should be banned. In particular, we again get a blurring of the level where a taxi dispatch terminal, whilst it might have a driver assistance function, can be used not for a driver assistance function but to secure jobs for the taxi driver — the same way someone might send an SMS to perform a work task.

We also need to look at, quite urgently as a matter of priority, the improvement of data on why crashes occur beyond the traditional road user movement codes. In New Zealand they are starting to gather driver distraction information. Irrespective of whether the attending police can actually lay charges due to the distraction — that is, careless driving — we need to try to analyse, through some sort of evidence on the scene, whether distraction was involved and therefore how we can try to address the issue.

It is interesting to note that the road user movement (RUM) codes are not national either, so it is very difficult for fleet and industry providers to compare national information. We need to address that issue as a matter of priority, I believe. I would also welcome the committee to do an extended trial of some of these technologies, like car navigation or driver alert systems, for an extended period of three weeks. I believe that that would be a fabulous investment to better inform the committee, if they do not already use these technologies, as to the potential to improve road safety and the opportunities for the future. I thank the committee for being able to provide that information.

The CHAIR — Thank you, Brent. I am mindful of the time, but we have got time for one of two questions.

Mr BISHOP — I thought that was a very good presentation. You put up ideas in summary of what needs to be done. Most of those are enforcement or issues like that. What about the technology? If you were king for a day, what would you say would be the best bit of technology to go into a car that would reduce the distraction?

Mr STAFFORD — I would say initially car navigation is an important platform because it can reduce the need for people to have street directories on their lap. We have seen a natural evolution and a slow-market penetration of car navigation. Not until we get better penetration of that system, which is naturally deployed in an OEM fashion — so the human-machine interface, the positioning, the period of eye distraction or eye movement is addressed properly — and not until we see the better adoption of those systems will we see the evolution of other supportive driver information and assistant systems. Getting the platform right in the first place is a critical element.

We have seen Japan, Korea, Sweden and other governments address that issue. So the individual platform can be the first important step on the road to better management of distraction. The platform itself often has a visions systems element — that is, a camera element. Once we have got the product in the vehicle then it is very easy to start to deploy the technology into different application areas with that basis already soundly established.

The CHAIR — We have a pretty busy schedule and a tight time line. Thank you, Brent, for your input. Hansard is to provide a transcript; we will provide a copy of it, and it will be available on the web as well. We appreciate your very detailed and informative submission.

Witness withdrew.