LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into the Increase in Victoria's Road Toll

Melbourne—Tuesday, 6 October 2020

(via videoconference)

MEMBERS

Mr Enver Erdogan—Chair
Mr Bernie Finn—Deputy Chair
Mr Rodney Barton
Mr Mark Gepp
Mrs Bev McArthur
Mr Tim Quilty
Mr Lee Tarlamis

PARTICIPATING MEMBERS

Dr Matthew Bach
Ms Melina Bath
Dr Catherine Cumming
Mr David Davis
Mr David Limbrick
Mr Andy Meddick
Mr Craig Ondarchie
Mr Gordon Rich-Phillips

WITNESSES

Mr Bernard Carlon, Executive Director, Centre for Road Safety and Centre for Maritime Safety, Safety, Environment and Regulation, Transport for NSW; and

Mr Alexander Jannink, Managing Director, Acusensus.

The CHAIR: Welcome to the Economy and Infrastructure Committee's public hearing for the Inquiry into the Increase in Victoria's Road Toll. I wish to acknowledge the traditional owners of the land, and I pay my respects to their elders past, present and emerging. I welcome any members of the public watching via the live broadcast. My name is Enver Erdogan and I am the Chair of the committee. I wish to introduce my fellow committee members: Deputy Chair, Mr Bernie Finn; Mrs Beverley McArthur; Mr Andy Meddick; Mr Rod Barton; Mr Lee Tarlamis, Mr Tim Quilty and Mr Mark Gepp.

To all witnesses: 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 Legislative Council standing orders. Therefore the information you provide during this hearing is protected by law. However, any comment repeated outside the hearing may not be protected. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament. All evidence is being recorded. You will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

We welcome your opening comments but ask that they be kept to a maximum of 5 to 10 minutes to allow plenty of time for discussion. Could I please remind members and witnesses to mute to their microphones when not speaking to minimise any interference. If you have any technical difficulties at any stage, please disconnect and contact the committee staff using the contacts you were provided. Could you please begin by stating your names for the benefit of the Hansard team and then start your presentation. Thank you.

Mr CARLON: Bernard Carlon, Executive Director, the centres for road safety and maritime safety in Transport for NSW. Thank you for the opportunity. New South Wales appreciates the opportunity to contribute to the important work of this committee.

For our state road safety is a key priority. In New South Wales, as of today, we have 323 people who have died in the last 12 months, 21 less than the previous 12 months. In our latest matched data for people seriously injured there were 10 366, which was down 705 compared to the previous year, with an estimated cost to the community of around $8 billion.

New South Wales contributes one-third of Australia's deaths on the road and 44 per cent of Australia's serious injuries. On our regional roads alone there have been 9816 deaths and serious injuries in the last five years at a cost of $13 billion. It is costly for our health system, it is costly for our communities, it has a devastating impact on families and it is costly for the state and national economies.

If there is a positive aspect to this situation, it is that over the past 30 years we have proven that this trauma can be prevented. In 2014 New South Wales experienced the lowest number of fatalities on our roads since records have been kept, with 307 fatalities. This is the only occasion when New South Wales recorded a lower rate per capita compared to Victoria. Tragically the following three years saw significant increases, with a higher 389 deaths recorded in 2017.

In response to this increase and the upward pressures on the road toll, in 2018 the New South Wales government released the *Road Safety Plan 2021* to reset the strategy and support delivery of the target of a 30 per cent reduction in road fatalities by the end of 2021. The plan delivered significant reforms to drink and drug driving laws, a doubling of the roadside drug screening tests to 200 000 per annum, targets set for RVT, 50 additional police for regional New South Wales, increased resources for police speed enforcement and a boost to the Safer Roads program of an additional $600 million worth of investment in safety treatments on our roads, such as barrier systems, treatments to high-risk curves audio tactile, along with expanded 40-kilometre-an-hour high pedestrian activity areas and treatments to high-risk intersections. The plan also initiated the development of the new mobile phone camera detection program.

The total funding invested in the delivery of that plan was a record $1.9 billion over the five years. That *Road Safety Plan 2021* supports the New South Wales government's Future Transport 2056, a longer term transport planning strategy. Future Transport 2056 acknowledges the unacceptable level of trauma and includes safety as one of the six statewide outcomes. Most importantly, through Future Transport 2056 New South Wales in March 2018 became the first jurisdiction in Australia with a specific transport planning vision for zero trauma.

I will focus a little on the mobile phone camera program announced as part of that *Road Safety Plan 2021* in February 2018, which saw legislation in place by July that year, and during that period in April we had an international market sounding for testing of viable technologies. We had 24 responses from around the world from technology companies, and in July 2018 those proposals were put through an RFP. New South Wales then went about testing three short-listed technologies, and during that testing period 8.5 million vehicles were checked; 100 000 instances of illegal mobile phone use were detected and a non-compliance rate of 1.22 per cent of the total number of vehicles—that is, one in 82 vehicles. We then went to implement the program and had a warning letter period from December through to February. During that period there were 10 million vehicles checked, 33 921 warning letters issued for illegal mobile phone use and a non-compliance rate of 0.34 per cent—one in 295. Since enforcement began on the program on 1 March, in the first five months we have screened 32.8 million vehicles, with 75 875 penalty notices issued and a non-compliance rate of 0.23 per cent—one in 432 vehicles.

This demonstrates a significant increase in the level of compliance across the whole of the network. The cameras are both fixed in location as well as mobile units which are travelling right across the state network, and we have seen this significant reduction since the pilot period of the behaviour which is putting peoples' lives at risk in terms of mobile phone use. Accompanying that was a significant implementation of strategies for ensuring that there are both privacy and security aspects of the program which are completely developed, and we have worked very closely with the privacy commissioner's office in New South Wales to ensure that the implementation operates in accordance with those privacy considerations. This program will ramp up over the forward years to a period in four years time where we will be screening 135 million vehicles per annum, with a view to deterring this activity which adds risk to drivers on our roads. I might hand over now to Alex, who is going to do, I think, a presentation on the more technical aspects of the technology.

Visual presentation.

Mr JANNINK: Thanks, Bernard. Thank you for the opportunity to appear before the inquiry today. I will just share my screen and run through a brief presentation. Hopefully you can all see that. I am Alex Jannink, Managing Director of Acusensus, a road safety technology company founded in 2018 and sponsored by the University of Melbourne's Accelerator Program. I was previously head of research and development for the global traffic enforcing camera company Redflex Traffic Systems. I am deeply passionate about addressing the challenge of drivers using their phones while behind the wheel for a couple of reasons. In 2013 my friend James Rapley was killed by a driver I was told was impaired and was texting. Since 2013 I have noticed that average road casualty rates have been worsening across a basket of developed countries like ours, and I was convinced that poor driver behaviour, particularly around mobile phone use, was the leading unaddressed cause. I founded Acusensus to provide a solution to this problem.

We started with a blank canvas approach to find a solution. How could we provide an effective, credible solution to reduce this problem? We determined that enforcement is the only viable option that can be implemented quickly across the driving population. We knew from other road safety programs that widespread anywhere anytime enforcement works to change driver behaviour, and we now know from New South Wales that it works to stop drivers causing harm by texting from behind the wheel. The enforcement solution we designed is effectively a sophisticated version of a speed camera. The solution can be deployed anywhere across the road network on a trailer-based platform, or it can be deployed on fixed infrastructure such as variable message sign gantries. The cameras take clear high-resolution photographs through the windshield of each vehicle that passes by the system at any vehicle speed.

The key innovation is a technology that removes glare from the windshield, enabling the capture of prosecutable evidence, day or night. In real time by the roadside a machine learning, artificial intelligence based system analyses each image to first find the driver and then calculate the likelihood that that driver is illegally touching a mobile phone. Images that the system believes are highly likely to show phone use are sent to a human reviewer to confirm the driver is touching the phone and in a manner that the authority wants to

prosecute. All the other images are discarded and deleted. This is an example of the kind of evidence this solution generates. You can see a clear photo through the windshield of a driver manipulating a phone with both hands. This is by no means uncommon. In about one in 20 offences the driver is displaying this behaviour, and this driver is conducting it at 84 kilometres per hour.

It is really important to ensure that the public is on board with the enforcement programs, which means upholding the absolute highest levels of integrity with respect to data privacy. This solution has numerous privacy and data security protections. For example, images are deleted as soon as they are no longer of any use in a compliance action. The vast majority of the images are never and can never be seen by a human. The network security architecture is akin to Fort Knox, and only the authority holds the credentials to be able to extract and view any data captured by this solution.

New South Wales was the first jurisdiction to move on this issue. Bernard's centre for road safety recognised the danger of mobile phone use in their own safety plan, and there was strong political will to find a solution to the problem. The government enacted a rigorous process of market sounding and evaluation and eventually selected Acusensus for their pilot program and their full rollout. This program, as we have heard from Bernard, has already been remarkably successful in changing behaviour. There has been a fourfold drop in the number of drivers caught using their phones now compared with the pilot program last year.

The Victorian government started their pilot in July this year using two transportable trailers which rotated through several different sites. The pilot is just coming to an end now. Quite high levels of non-compliance were detected here, some of the highest we have seen in Australia. On the publicly released numbers from the first month, 2 per cent of drivers were actively using a phone illegally. The Victorian government also tested the speed enforcement capability of this solution and the seatbelt use enforcement capability too. So as was tested here in Victoria, a benefit from this technology is the ability to counter multiple road safety challenges at once. The same solution can simultaneously be used to enforce distraction, seatbelt use, speeding and unregistered driving. These added capabilities can provide jurisdictions with a very cost-effective way to address their multiple road safety challenges.

We have learned from the program in New South Wales and other programs elsewhere that enforcement camera programs clearly drive behavioural change, and they drive change against distracted driving. In New South Wales this government program has already been successful in changing the behaviour of 75 per cent of the motorists who were illegally using a phone. The program has also validated the new trailer deployment methodology for anywhere, anytime enforcement, which provides efficiency and safety advantages over traditional mobile speed camera enforcement. We have also seen that the same technology platform can be used to address multiple road safety challenges simultaneously, and into the future we envisage further technology and interventions to help in road safety. For example, we are researching a system to detect the likelihood of a driver being impaired by drugs, alcohol or fatigue as they drive by. I thank you very much for your attention.

The CHAIR: Thank you very much for that informative presentation by both of you. I might pass on the first question to Mr Tarlamis and then go to Mr Quilty.

Mr TARLAMIS: Thank you, Chair, and thank you, Bernard and Alex, for your submissions and for your presentation today. You talked about the Victorian trial and how it is coming to an end, and you gave us some initial figures there. How did the Victorian trial compare to the New South Wales trial? You mentioned that Victoria had some of the highest figures across Australia, but have you got any figures to talk about how the Victorian trial compares to the New South Wales trial when that was run initially?

Mr JANNINK: Unfortunately I cannot share a lot beyond what is in the public domain already. I know you have got the department appearing later today and perhaps they could give you some more detail on it, but it did rotate through multiple metropolitan sites and regional sites—fairly close to the metro though.

Mr TARLAMIS: No worries.

Mr JANNINK: It does show pretty high non-compliance—higher than we would see in New South Wales and Queensland.

Mr TARLAMIS: In terms of the data that was collected as part of the trial, was there any analysis? Was it just purely collection of numbers of people breaking the law or did it actually break down any other information? What information was collected as part of the trial?

Mr JANNINK: I guess people use their phones in different ways while they are behind the wheel, so there is that incredibly clear offending behaviour of two hands on the phone; there is one hand on the phone active use; and then there are other behaviours, like the phone could be resting in somebody's lap. That is very common, and that perhaps is not being actively held in the hand or actively used. I think the department will be taking the findings in working out and informing their legislation change, because obviously the next major step in the program for Victoria I believe is enacting enabling legislation to allow automatic camera enforcement.

Mr CARLON: In New South Wales, if I could just clarify, we did actually have legislation in place at the time for the trial that was taking place, and of course there was an audit to verify whether we could actually have an evidence pack which would actually be sustainable in sustaining a charge. And so the system was being validated for ensuring that it was able to read the registration number of the vehicle, actually place the vehicle on a road and actually then clearly identify the aspects of illegal mobile phone use—which is to be handheld or in the lap or on the body—and able to be providing sufficient efficiency within the system to actually exclude a significant number of the images so that the validation process does not involve an officer having to see every single instance in order to issue an infringement. Then we got down to around 10 per cent; 90 per cent of the images during the pilot period were actually being discarded and automatically deleted by the system without anybody ever seeing those images. And at this point I think we are down to around 6.5 per cent of the images coming through, so around 97.5 per cent of the images are actually being discarded within the system, and then those images that are most viable to actually send an infringement are then reviewed by an authorised officer. There were more than 100 000 instances in the pilot period of both mobile and fixed—the majority of those were fixed—locations, with a non-compliance rate of 1.22. I note in Alex's presentation that the publicly available information in Victoria was 2 per cent, so that would be a significantly higher rate of non-compliance.

Mr TARLAMIS: In terms of privacy matters—I assume there is a privacy commissioner in New South Wales—have you worked with the privacy commissioner in terms of ensuring that they are comfortable with the level of confidentiality that is being observed operationally?

Mr CARLON: Yes, absolutely. We did a privacy impact assessment. It was undertaken to inform the pilot, and we have had ongoing consultation with the privacy commissioner during the development of the program and continue to update the privacy commissioner on the operation of the program. We have a significant audit process to ensure that both the privacy and the security arrangements are working as prescribed in the procedures for the program. The artificial intelligence process limits the human review of the images. The first reviewed image is cropped, showing the driver only, and cannot identify the vehicle. The final adjudication of images has a pixelation of [Zoom dropout] audit trail for access to and interaction with all of the data and images is maintained at a very high level of security key, and we have made sure that we have used all of the experience in operating the speed camera and red-light camera programs over the last 30 years in terms of the build-up of both privacy and security arrangements for the management of that process. That has actually been used as the foundation for this program as well.

Mr TARLAMIS: Thank you.

The CHAIR: Thank you. Mr Quilty.

Mr QUILTY: Thank you. So based on the modelling you said this will reduce about 20 serious injury/death crashes a year in New South Wales. What is the actual cost to the taxpayers to implement the program, or is it in fact self-funding?

Mr CARLON: No, the program is self-funding. The legislation in New South Wales actually dictates that with any camera program, which this particular program is specifically, all revenue from the program goes into the Community Road Safety Fund, and under the legislation in New South Wales those funds can only be used for improved road safety outcomes. So our school flashing lights program, our Safer Roads Program of investment in infrastructure, our enhanced enforcement for policing, our education programs—all of those

programs are funded from the Community Road Safety Fund, and 100 per cent of the revenue from this program is hypothecated into that fund.

Mr QUILTY: It seems to me that if people want to get around these cameras, it should be relatively easy to screen where their phone is held from the cameras. I guess that that goes to motivation—whether users are intending to use their phone or it is just casual use. Can you comment on that?

Mr CARLON: Look, I think from our point of view we are encouraged that in the initial phase of these first five months of the enforcement we have seen, and this is across the board, a significant reduction in the non-compliance rate. I think that with deliberate attempts to actually screen a phone or do activity that actually tries to get around the technology, there is a simple solution to this. It is called a $20 cradle. It is not any more inconvenient to have your phone in a cradle or use it on bluetooth, and our objective here is clearly to moderate that risk that we see as a significant risk when people actually hand hold their phone and text on their phone. We have not seen a significant level of that sort of obfuscation of the law at this point in all of the reviews of the material, and as I said, we are encouraged by the fact that we actually have seen in this initial phase a significant increase in the compliance rate across the state.

Mr JANNINK: If I could just add, there are multiple camera angles that are used to photograph the driver and see where they are holding a phone, and with those camera angles the steepest one is very steep, so you can see drivers holding the phone sort of underneath the steering wheel and in positions like that. So it is kind of hard to hide the behaviour. And the other thing to note is that the drivers who are touching the phone and are actively using it are themselves distracted and are not very aware of the road environment. That is why they are a danger, and they do not necessarily notice that there is a camera there.

The CHAIR: Thank you. Are there any other committee members with questions? I might pass to the floor. Mrs McArthur?

Mrs McARTHUR: Thank you, Chair, and thank you, Bernard and Alex. I just want to go back to the revenue-neutral aspect of this. How much money has New South Wales been able to raise in fines generated by this device? That is the first question.

Mr CARLON: I am sorry. I do not have the actual figures to hand, but I am happy to provide them to the committee—those that have been published. It is available on the Revenue NSW public website, and the actual figures are published in terms of the revenue. I would just point out that those figures are published on the basis of the entity that they are issued to, and we have a situation New South Wales where if the fine is issued to a corporation or a business-registered vehicle, it is at five times the face value of the fine. So the majority of those fines are actually then nominated to the driver of the vehicle at the time, and if you are a hire company, clearly a hire car fine is then nominated to the driver and that level of fine actually reduces back to the standard $350-odd fine. In New South Wales it is also 5 demerit points for this offence and in double-demerit periods it is 10 demerit points. So over this long weekend the penalty for mobile—

Mrs McARTHUR: You hope to raise a lot of money.

Mr CARLON: Well, the demerit points are a very effective deterrent. The threat of people losing their licence has a very well researched deterrent effect on people's behaviour—on all risk-taking behaviours—and so that significant deterrent of double demerits is put in place in order to change the behaviour. Again, we would prefer not to have any fines issued, because we want to remove the risk from our roads.

Mrs McARTHUR: So I guess, just following on from that, if you are able to photograph who the driver is, that would eliminate the ability of a company being able to transfer the demerit points, would it, to somebody else, which sometimes happens?

Mr CARLON: That would be fraud if people were doing that, and that is a significant offence if people are not nominating the identified driver. Yes, the system is built in order to have the person who has actually offended be the person who is nominated by the registered owner.

Mrs McARTHUR: Just a last question. I am just interested that the Victorian government looked at having other things identified, like seatbelt use—I do not know what else. Could it also identify if somebody was, say, drinking alcohol or using illicit drugs while driving?

Mr CARLON: We do have approval for further research in this area; we have actually approval for further research into high-risk driving behaviours like seatbelt usage. RBT and roadside drug test screening in New South Wales is a very effective, efficient and well-understood system for monitoring that sort of behaviour around drug and drink driving. Also as part of our plan we did set a significant target for RBT on the roadside as well as a doubling of the number of the roadside drug testing program to 200 000 tests per annum.

The CHAIR: Thank you. I have got a number of speakers online, and we are probably not going to get to all of them. Mr Gepp has been patiently waiting for a while. But if we do not get around to all the questions, Alex and Bernard, is it okay if we email across some of the questions the committee members have? I also have a question which I might not get to today. Is that okay if we contact you, though?

Mr CARLON: Yes, we are happy to answer your questions.

The CHAIR: Thank you.

Mr JANNINK: Happy to answer.

The CHAIR: I will pass to Mr Gepp, and we might have to put the others in writing in due course if that is okay with the rest of the committee.

Mr GEPP: Thanks, Chair, and thanks, gentlemen, for today. Just a couple of quick questions. Firstly, do you think we will ever get to the stage where technology is being developed at the vehicle manufacturing stage that will interact with mobile phone use, whether it is block-outs or some sort of connectivity between the phone and the vehicle? I appreciate that there might be other mobiles in the car, but do you think that there will ever be that sort of relationship at the manufacturing stage? And since you have initiated these systems in New South Wales, is there a particular age cohort that is more likely to offend than not?

Mr CARLON: On the technology side, yes, I think that eventually technology will continue to develop in this area. Clearly the law allows people to use their mobile phones safely by having them mounted in a cradle or using them on bluetooth currently. There is police enforcement alongside this automated enforcement—the only really viable methods currently to regulate the illegal use of mobile phones because of people actually being able to hold them in their hands while they are driving and being able to text. I think you would need significant changes in our approach to use of mobile phones while driving in order for those other technologies to have an impact. And the second part of your question, sorry, was?

Mr GEPP: Just the age cohort of—

Mr CARLON: The age cohort? Yes. I think people tend to think that it is a lot of younger drivers, and we do have a significant proportion of younger drivers, but for the actual offences—and this comes from the data, the police data, as well—the largest cohort is actually the 25- to 35-year-old driver. In this offence area as well we see a significantly higher proportion of female offenders compared to other offence types, but still the majority are male offenders, though we do see a skew towards an older age profile for this offence as well. You will notice in some of the photographs a significant number of offenders who are driving trucks and utilities and those sorts of vehicles, which are tradies and those sorts of areas where people are using their mobile phones illegally.

The CHAIR: Thank you very much. My apologies to fellow committee members as we have not had an opportunity to give everyone time for questions; it is just that the schedule for today is very tight. On behalf of the committee, to both of you, Bernard and Alex, it has been a pleasure to have you. I wish to thank Transport for New South Wales and Acusensus for the submission and the presentation. I found it very informative, as clearly my fellow committee members have because we have got so many questions pending. In due course we might send them across. Thank you again.

Mr CARLON: No problem. Thank you.

Mr JANNINK: Thank you very much.

Witnesses withdrew.