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TRANSPORT AND PUBLIC WORKS COMMITTEE

Members present:

Mr SR King MP (Chair)
Mr CE Boyce MP
Mrs JR Miller MP
Mr BJ Mellish MP

Staff present:

Ms D Jeffrey (Committee Secretary)
Ms M Telford (Assistant Committee Secretary)

PUBLIC HEARING—INQUIRY INTO TRANSPORT TECHNOLOGY

TRANSCRIPT OF PROCEEDINGS

MONDAY, 12 NOVEMBER 2018

Brisbane

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The committee met at 9.30 am.

CHAIR: I declare open the public hearing for the committee's inquiry into transport technology. I would like to acknowledge the traditional owners of the land upon which our parliament stands. My name is Shane King, member for Kurwongbah and chair of the committee. The other committee members here with me today are: Mr Colin Boyce, member for Callide; Mr Bart Mellish, member for Aspley; and Mrs Jo-Ann Miller, member for Bundamba. Mr Ted Sorensen, member for Hervey Bay, and Mr Robbie Katter, member for Traeger, are apologies for today's hearing.

The committee's proceedings are proceedings of the Queensland parliament and are subject to the standing rules and orders of the parliament. The committee will not require evidence to be given under oath, but I do remind witnesses that intentionally misleading the committee is a serious offence. You have previously been provided with a copy of instructions to witnesses, so we will take those as being read. The proceedings are being recorded by Hansard and you will be provided with a copy of the transcript. To assist with clarity, please identify yourself when you first speak and speak clearly and at a reasonable pace.

The purpose of today's hearing is to assist the committee with its inquiry. Media may be present and will be subject to the chair's direction at all times. The media rules endorsed by the committee are available from committee staff if required. All those present today should note that it is possible you may be filmed or photographed during the proceedings. I ask everyone present to turn mobile phones off or to silent mode. I also ask that if witnesses take a question on notice today they provide the information to the committee by 4 pm on Monday, 26 November 2018.

This hearing is the second hearing the committee has held for the inquiry. The committee intends to conduct more hearings on the inquiry with information to be updated to the committee's page as it becomes available.

GREEN, Mr Philip, Privacy Commissioner, Office of the Information Commissioner

SHANLEY, Ms Susan, Principal Policy Officer, Office of the Information Commissioner

CHAIR: I now welcome representatives from the Office of the Information Commissioner. Thank you for your assistance and attendance here today. Would one of you like to make an opening statement?

Mr Green: Thank you very much for having us attend this morning. My name is Philip Green, I am the Privacy Commissioner appointed under the Information Privacy Act representing the Office of the Information Commissioner today. I think I can keep this fairly brief. I believe it is an excellent opportunity to have a look at privacy and data security in this context. I know there is substantial work being undertaken by the federal government through the National Transport Commission on automated vehicles and autonomous vehicles and pilots spoken about around the world. It is very good to take a step back and look at privacy. In any sort of new and emerging technology there are always possible threats to human rights and to particular individuals' privacy. It is a good time to take a step back and have a look at how the data flows in these sorts of situations and make sure that we design the system in a way that is sympathetic and does not compromise individuals' rights in an unnecessary fashion.

We have made brief submissions noting that a privacy-by-design approach would be beneficial in this circumstance. That is no surprise; we have said that in the context of a lot of emerging technologies. The interesting thing about autonomous vehicles is it really combines a great deal of existing technology into one place and into one unit. The challenge is for social media, for example, for Google searches, the geospatial challenges, audio and video recording—all of those things in the surveillance society come to a confluence in one place in a motor vehicle. It is the much the same as is happening in the context of our homes with things like Amazon and Cortana search engines and audio and video recording in the homes. It is almost the sanctity of the vehicle which is worthwhile taking a look at to make sure we get the design right.

I do not think privacy will get in the way of this. We are quite excited to see how this would develop and evolve. I understand there are many technological and public safety challenges ahead of the privacy challenge. We are here as an office to really facilitate, participate and help assist in implementing this technology in a beneficial way and in a way that people will be happy with.

CHAIR: I am sure the concerns we have would mostly be based on what we have seen in Hollywood movies. You can imagine being in—it was more of a statement than a question—an autonomous vehicle and someone else taking control of it, so privacy is very concerning.

Mr BOYCE: With regard to location information, what are some of the key risks that might be posed to people such as domestic and family violence victims and can these risks be mitigated?

Mr Green: I think that is a very good question. It is very similar to the geospatial data that is recorded on mobile devices right now. We have regimes of access in the telecommunications arena. Most likely, these vehicles might use that or create their own systems for using geospatial satellites. The telecommunications industry does have some fairly good safeguards in place right now. The one thing that has been questioned by civil society has been access to metadata through the telecommunications network. That triangulation of either the network or wi-fi data that is accessible to law enforcement has raised concerns. Under the federal legislation the telcos are required to keep that data for two years. The car data would be similar—the geospatial data would be similar. If it is reliant on the telecommunications data it probably would be regulated by that, otherwise it might have specific legislation.

I believe law enforcement and others could get access to that. Law enforcement itself should be subject to safeguards and transparency. Particularly from a right to information perspective, we would advocate for clear records of who is accessing the data created and for what purposes and that there is a lawful basis for accessing it. There are safeguards in the current system which I believe are reasonably adequate. From time to time there have been some misuses of those. The Federal Police have actually misused that and there has been journalist access of metadata. The Queensland Police Service has had some unauthorised access and disclosure of personal data.

There is always some risk that cannot totally be mitigated against. There are safeguards that can be put in place. In the case of metadata, the question is: who will get access to that? In a car or a vehicle perspective most likely insurers may want to get access to locational data. The transport regulators as well as greater law enforcement may want access to it as well. There may be more access points and more data trails that are accessible. There will definitely be increased risk. That is something we need to make sure we put adequate safeguards around.

Mr BOYCE: Is there a middle ground between keeping safe people's private information that is likely to be collected from driverless car technology and being able to use this information for effective law enforcement?

Mr Green: Again, that is a very good question. That question comes up in a wider set of technology data trails. For autonomous vehicles, there will be a greater volume of data, I believe, and more volume of trails put in. In the case of the Google data that already exists on search engines, if Google is a search engine in your vehicle for finding places or some other technology is the search engine, that data trail probably exists already. Again, there are safeguards that are in place to guard against improper use of that.

Internationally the question of whether they are adequate is raging right now because some of the companies that control the data have an enormous amount of data and the ability to acquire other data through acquisitions of the monopoly of data that we speak of. Potentially, the greater threat might be companies that amass a massive amount of data. I know Google is making a play in the autonomous vehicle space as are others—and Apple. They are all playing in that. If they converge and then have a lot of systems that we are using in our everyday lives as well as our vehicles, I believe there is more risk there from monopoly power and access to data than law enforcement necessarily.

The law enforcement tends to have always had some controls and some reasonable access regime around it. I think it is still important that we have those controls and transparency about who gets access and for what purposes. That is raging in the federal context right now with the My Health account data and access to health records. The Australian public have said quite clearly, 'We're not happy with law enforcement getting access to that data without a warrant.' Whether they get access beyond, say, the telecommunications data that they have without a warrant right now—they can get the metadata without a warrant. I think the regulator should get deidentified data easily without a warrant because that helps them regulate the transport system.

Whether the law enforcement people trying to solve a crime through access to a wide network of vehicles operating get that without a warrant is a question I think the public will have to consider—and the parliaments will have to consider whether that access should be given. That is currently happening in the federal parliament with a bill called the access and assistance legislation that the federal Attorney-General has introduced to the House of Representatives. I believe there are some certain questions to be asked about whether that is appropriate access—compelling companies to break encryption. The adequacy of the controls being placed on that is a real, live question right now. That could well come up in the autonomous vehicle context as well because of the data security and the issues around the public safety.

Most likely, the data will be encrypted and very strong safeguards will be put on the transmission to make sure that those horror movie stories do not play out where people take control of vehicles for nefarious purposes and drive them out of store windows and things like that. The security systems will have to be very robust and most likely there will be legitimate reasons for law enforcement to get behind those for certain things. Putting some adequate safeguards there will be worthwhile I think, and the public would expect that.

Mr BOYCE: That leads to my next question. Will the RTI Act as it currently stands be capable of keeping up with changes in data collection and technology that we are likely to experience?

Mr Green: In the right to information and freedom of information space I believe Queensland has one of the best regimes in the world right now. Our information privacy legislation perhaps is not as strong. I know the Attorney-General is currently looking at that and has a current review. In terms of RTI, the access to the data and access to personal information versus just the data—say, geospatial of where a car is that might not even be personal—would have to be taken into account by the regulators and the manufacturers because people do have a right to access their data. Some of that will be regulated by the federal legislation.

Tesla is the most current example. Tesla operating in Australia would currently be subject to the Commonwealth Privacy Act and the Commonwealth FOI Act, so theoretically people could get access to the data from Tesla right now. I believe they transmit quite a bit to the US. That would be subject to the federal privacy legislation. There are questions about whether it is adequate because of the international data flows there, and that is a live question worldwide right now because Europe has strengthened their privacy laws. The US is actually under pressure right now to strengthen its laws for access and amendment and for privacy in the US.

Mr BOYCE: Given the fact that inside a driverless car is a private space, are there enough procedures in place to protect the conversation, for example, that might happen in that space?

Mr Green: Again that is a very, very good question. Currently, audio recording is regulated in Queensland by the Commonwealth Privacy Act, a different act than our own legislation. The audio recording regime and the surveillance regime that were set up are quite dated and go back to the 1970s, when a lot of this technology was simply not even contemplated let alone in existence. That legislation, I believe, will be subject to review by the Law Reform Commission. There has been a referral for workplace surveillance as well as for technological challenges in surveillance in Queensland. I believe that South Australia has passed the Surveillance Devices Act, which is the most modern in Australia and probably gives better protections in relation to private conversations where someone records the conversation without the knowledge of the other party.

Right now at least one party to a conversation has to be aware that it is being recorded. Theoretically, if your Tesla has an audio mic open or your Google Assistant mic is open all the time they may be breaching Queensland legislation because they are not a party to the conversation. I think it is something that we need to look at, because I do not think the law has kept up with technology. I do think there is a real risk of that occurring and that corporations are hearing conversations or recording them when possibly they should not be. At least they should disclose the fact that it is possible.

Mr BOYCE: I think it is most important for us to protect that.

Mr Green: I believe there is another question with regard to workplace surveillance. If you are driving an employer's vehicle and they get access to all of the data streams as well, there is another question there about whether that should occur, particularly in your off time, your lunch break or something like that, where the car is still live and recording.

CHAIR: That has always been a risk. I remember working in a mine when I had a walkie-talkie, and I leaned into the seatbelt buckle and transmitted everything I said to the mine. Technology has caught up with us.

Mr MELLISH: You were speaking about Tesla and how they may be subject to the Commonwealth Privacy Act. I am interested to know your views on rideshare apps, whether they are subject to federal or state legislation and/or regulation and how that works at the moment.

Mr Green: That is again a very good question. Basically, our legislation just covers state entities and about 500 agencies that we regulate. These are primarily government departments, local governments, hospitals and education. There are apps that have been created by government and those entities. I do not believe they have extended to ridesharing, but theoretically Transport or TransLink could get into that space and then we would regulate them. We certainly regulate apps developed by those entities and we have looked at that in our audit function. We recently audited TransLink, Education and QPS and looked at their app development to see whether that was done in a privacy sensitive way.

With mainstream app sharing—for example, Uber and Lyft—if they operate in Australia they fall under the Commonwealth act provided their turnover is over \$3 million. I believe Uber is certainly in that vicinity. I am not sure about some of the smaller ones, but they could well be. The federal commissioner does have power to audit and investigate breaches there. I do not believe they have had complaints yet, but I know Uber has had data security issues. I have personally been impacted by credit card fraud on my Uber account. They are regulated, but whether they are adequately regulated is another question. I believe they will potentially become more sophisticated. I have heard that Uber has plans for autonomous fleets, as their highest cost is drivers. I am not sure if that totally answers your question. Certainly there may be more areas to look at; for example, if they operate autonomous fleets, whether that regime is adequate to regulate all of the issues.

Mr MELLISH: With regard to Uber, in 2014 they were accused—and owned up to—tracking journalists' data, where they were and acting on it, which is pretty untoward. They are covered under the Commonwealth Privacy Act, and the state does not necessarily have a role in specifically regulating their locational data and how they use it.

Mr Green: Yes, unless departments are using them for their staff. Theoretically, we still can get our grips into private corporations if they are providing government services. I am not sure if Uber is being used to provide transport services for state or local governments. It is possible they could be used by local governments. If they are, then we may have a regulatory role. We do work quite closely with the federal regulator and we do meet with international regulators. Because a lot of these issues are common across jurisdictions, particularly for a corporation such as Uber which operates across the world, it is very important for us to collaborate and work together. I do believe they have been in contact with the Commonwealth at least.

Mr MELLISH: You mentioned the federal assistance and access bill. Does that address any of these issues?

Mr Green: There are a couple of regimes of notices that they can provide to corporations operating in Australia or in other jurisdictions to provide assistance or access to devices around security controls that are put on them. Some people have said that is breaking encryption. There is a colloquial term, 'back door' access. The federal Attorney-General and Prime Minister have said that is not what they are doing, but the technologists seem to be implying that they cannot create those sorts of access points without creating systemic weaknesses in them. From the perspective of autonomous vehicles, you would think the security experts in that area might have some concerns if the Australian government were serving those sorts of notices that compromised the security of the systems they are using worldwide.

Some have been critical that the Australian act does not have any safeguards like the UK equivalent. The UK has a Bill of Rights. The bill that is being considered in Queensland right now will not fix the problem in this state for the federal access point, but the US access and assistance regime is actually subject to probable cause and higher safeguards than the Australian one. Our office submitted to the federal Senate committee that we thought more transparency should occur in that bill and that additional safeguards should be put in place. The biggest concern is that if we weaken security for something like a systems access it could actually create weaknesses, particularly for driverless vehicles. Generally, technology like your iPhone is not normally going to kill you but in an autonomous vehicle it could. I think the stakes are heightened in that context.

CHAIR: You have half answered my question. I would like to go a little further into this. In relation to mitigating the risk of any potential privacy invasion, do you think there is anything extra we can add to Australia and Queensland's regulatory framework? You have put in a submission to the Senate.

Mr Green: We made a submission to the inquiry into the Bill of Rights at the Queensland level. My personal view is that that is a good thing. Our office supported it. To achieve those levels of protections for federal incursions by law enforcement into that space, for example, we need it done at a federal level. I think that it is a step in the right direction. It is not a panacea. We need to ensure that adequate controls are built into legislative schemes. Hopefully the federal parliament will make more safeguards around transparency in a legislative context. I believe the companies that are operating in that space will have good suggestions as to what kinds of controls would be adequate and worthwhile.

Generally, I do believe that we need to keep our privacy laws up to date. The Commonwealth legislation has recently been amended to add a mandatory data breach regime so that people are told if their data is breached and what has been done to fix the problem. We have that on a voluntary basis in this state currently, but that is something I think we should look at. Europe has moved to a gold standard in data security and protection under the General Data Protection Regulation (EU), and that will be a beneficial influence in the world in making sure that the right balance is struck. Privacy is not an absolute right. People will accept some intrusion into their lives for public safety. We generally respect that balance and try to assist in making sure we strike the right balance. Our big thing is to support public debate. This process is an excellent one, and I commend the committee for looking at these issues. If we can raise issues around privacy and people speak up about where they want the line drawn, then we can get the balance right.

CHAIR: You used the term privacy impact assessment. Can you flesh out what that is?

Mr Green: It is not a magical term of art or anything like that. It is really looking at the risks of data flows and information flows and where there might be weaknesses from a security perspective or from a privacy impact. One of the principles that is built into the general data protection regulation is data minimisation. You ask, 'Do you really need it?' Do you need to collect personal data? In their app development for journey planning, TransLink made a conscious decision not to gather your name and location data at the time you interact with the app, and that is a very valid thing. In the privacy impact assessment you look at the need for it, your legislative basis for collecting it, whether you use consents or other mechanisms or other exceptions, and then where the data will be kept and stored, what it will be used for. It is becoming more and more difficult.

The big corporations are using consent and big, long licences. I do not know if you have ever looked at the Apple licence or the Google licence and read through it. They are updated so regularly that you would never have time to do that. Even my office, which has a job to do on that front, has a hard time keeping up. PIA is basically codified at the federal level so that all agencies must do that if they are doing anything with technology or legislation that has a privacy impact. We strongly encourage it. That is something that we look at in our audits. That is something we highly advocate.

When we say 'privacy by design', you would do privacy impact assessments for different aspects of an autonomous vehicle. The driver systems and infotainment systems all have to be looked at separately and chopped down and looked at in terms of what data is being collected, for what purpose, what is the lawful basis, what are the controls on that, what are the mitigating steps that you can put in place? For example, you would want good security in an app. You might store the data encrypted and encrypted in transmission so there is no risk of it being intercepted. You might have an audit trail on the access points. You might have a monitoring system using artificial intelligence that says, 'There was an unusual pattern of activity on that data. Let's have a look' and trigger a human flag to have access. That is being used in the health context right now, and I think in law enforcement it might be worthwhile looking at as well.

A PIA just looks at those things, and ideally it should be done before any big technology. I believe the federal government will do that and transport regulators will look at specific aspects. The National Transport Commission has been looking at insurance, for example, and its interaction in this space and who should get what.

In Health that is being done for things such as the My Health Record, although perhaps not in the best fashion, shall we say, in terms of execution. We are currently involved in doing a privacy impact assessment for biometric access to driver's licences by law enforcement. The federal government Department of Home Affairs has conducted a privacy impact assessment for law enforcement access to biometrics as well as for transport agency access to biometric data. I think that is good practice. It would be even better practice if it is publicly made available and then subject to public debate, which we would always advocate as best practice.

CHAIR: Driverless vehicles are a little way off, but drone technology is here. I was at Jaycar the other day, and you can buy umpteen dozen different types of drones that go to your mobile phone. Supposedly those things record to the operator's mobile phone, so is there anything being looked at in that regard? Anyone could access that data too. I understand that is definitely under the federal jurisdiction.

Mr Green: It is complex, because some agencies like local and state departments are actively using drones for monitoring infrastructure and the police have a fleet. Local government has one for hire to smaller local governments through the LGAQ. We do regulate the data flows, privacy and right to access, so RTI applies to that and the Public Records Act and law enforcement access. To date there are gaps. I think the Premier's department did a strategy on drones and that has been publicly released. They are looking at privacy in that context. There are wider public nuisance questions beyond just information privacy involved with drones. The safety aspect is regulated by CASA. When the private sector uses them, if they have a \$3 million turnover then the federal jurisdiction kicks in. Right now the biggest gap is small business which is under that threshold as well as the individual use of drones.

CHAIR: That is where I was going.

Mr Green: Yes. Frankly, you can now buy a very sophisticated kit for under a few thousand dollars that has privacy as well as safety issues that perhaps need to be further addressed. I think CASA has extra funding for regulating the space, but the next step is using them for delivery purposes or more commercial purposes. That should fall within the Commonwealth jurisdiction. I know there is one local government that has regulated and forced registration of a certain size of drone, because one of the problems is identifying who is operating it before you even look at the information flows. There are certainly filming and audio recording possibilities. I believe that some drones have the opposite of noise cancellation so that you could pick up conversations as well. Geospatial, visual and recording all converge there, and there could be personal information.

CHAIR: Is it possible to tell us which council? If you are not allowed to, that is fine.

Mr Green: I absolutely could. I can take that on notice. I have just seen it reported. I did not have it brought to our attention.

CHAIR: It would be very interesting to know, because we deal with councils a fair bit.

Mr Green: I am happy to take that on notice. We are looking at it because it is an interesting development. I think CASA has looked at it for certain payload sizes. If one of the smaller ones in particular crashed in a place where it was not allowed to fly lawfully, there could potentially be Criminal Code issues. If they are being used very capriciously, for example, in a peeping Tom situation on a high-rise building, the Criminal Code could come into it. I know it would invoke police involvement if inappropriate images, particularly of juveniles or in a public space, were taken. It is quite possible that could occur. We do have some levels of protection; it is just perhaps a bit patchwork.

CHAIR: Big Brother is watching.

Mr BOYCE: I would like to expand on that a little bit in this day and age of terrorism and so forth. How can we mitigate drone technology so that drones are exempt from being anywhere near a public gathering, for example?

Mr Green: I believe the CASA regulations already prohibit that. For example, the Commonwealth Games security arrangements had technology to detect possible incursions of the airspace by drones and interference with some of the aviation around certain infrastructure. I am not totally privy to that. I was not involved in the security operations. There are certainly regulations around critical infrastructure and public spaces to try and stop that. Whether they are adequate is probably a question that is live. I believe that in correctional facilities they use things like blocking technology to stop drones ever flying around correctional facilities. There are technological solutions and, if you like, drone 'guns' that shoot radio frequencies to knock them out of the sky. There are some law enforcement areas that have used birds—eagles or something like that—to take them down. They could be more heavily regulated. I think risk assessments are done by law enforcement agencies and they do have technological solutions for some aspects. Again, whether they are totally adequate is another question. I believe for filming purposes people sometimes bend the rules, and because that individual use is not regulated there may be some gaps.

CHAIR: We may think of more questions. We will send you the question on notice, but if we do come up with just the odd question can we send it through?

Mr Green: Certainly, we would be happy to oblige.

CHAIR: If you could get that answer back to us by 4 pm on Monday, 26 November?

Mr Green: Certainly. We will do it today.

CHAIR: Thank you very much for your time; it is much appreciated.

PROOF

DALE, Mr Brett, CEO, Motor Trades Association of Queensland

TEWES, Mr Alex, Policy Manager, Australian Automotive Dealer Association, via teleconference

VOORTMAN, Mr James, Executive Director, Policy and Communications, Australian Automotive Dealer Association, via teleconference

CHAIR: We will now move on to the industry associations. Mr Dale, if you have a brief opening statement we would love to hear it.

Mr Dale: Thank you for the opportunity to speak this morning on this important issue. I speak today on behalf of the Motor Trades Association of Queensland. We represent the retail, service and repair sectors of the automotive value chain in Queensland.

Many will know that our industry is about to face its greatest level of disruption since the inception of the motor car itself. We will see a huge shift from combustion engines to electric vehicles. Additionally, autonomous vehicle technology and the use of artificial intelligence will underpin the future of the automotive value chain, changing our entire industry.

This technology is being developed exponentially and forward planning is essential. The reality is that this is the beginning of the future for the industry, and this immediate change is being led by the introduction of electric vehicle technology. There is a growing consensus that 2022 will be the turning point when business as we know it today will have changed significantly to ensure its sustainability. The way in which consumers view transportation and mobility options will also change dramatically. On that basis, the consideration for enabling a regulatory framework that supports the uptake of new technology is critical.

The challenge for governments will be to develop frameworks that both enable the adoption of the most advanced formats of vehicle technology while at the same time ensuring these frameworks have the competence to support existing fleets in those regions where the economic, commercial and social costs of the transition do not justify rapid change. The automotive industry welcomes the initiatives proposed by the government to support the uptake of new technology but cautions that policy consideration will need to extend to all industries. The growth will impact most areas of society, and all future planning will need to consider the phenomenon. The MTA Queensland strongly urges the harmonisation of regulation of the automotive sector across the states and territories of the Commonwealth.

The opportunities present through emerging technologies in our industry are significant and present economic, social and environmental benefits that go well beyond what we currently consider possible. To support the success of this new technology governments must move to implement legitimate trials to validate, educate and normalise the future of mobility and transportation.

Mr Voortman: Our organisation brings together new car dealers in this country. In Queensland we employ over 13,000 people and pay approximately \$1.2 billion in wages. Overall, new car dealers make an annual contribution of \$2.8 billion to the Queensland economy. The reason we are keen to contribute to your inquiry is that we understand that transport technology is changing rapidly. Whether that future is electric or autonomous, it is we who are going to sell those cars to the Queensland consumer. As such, we have a very direct interest in ensuring that their introduction into Australia is as easy and painless as possible.

To that effect I would like to highlight a number of points. Firstly, as new car dealers we are happy to sell any kind of new vehicle to a consumer, but to do that—specifically in the case of electric vehicles—we need the models and the stock. In Australia that has not been easy. Secondly, we need to be able to sell cars at prices that will be attractive to the general public. We are not only battling new vehicle prices that are higher than their equivalents powered by internal combustion engines but we also face the added burdens of new vehicle tariffs and the luxury car tax, which can add about \$20,000 to a car such as a Tesla S. It goes up from there depending on the vehicle. Queensland, of course, has its own stamp duty based tax that covers luxury cars.

The third point I want to make is that while Queensland has made progress, there is still a long way to go before the state of the charging infrastructure stops being a strong disincentive to prospective buyers. Regular commuters may be able to depend on charging at home, but for many other uses electric vehicle drivers need to know where the chargers are going to be, that there will be a sufficient number of them, and that rural and regional Australia is not left behind in the rollout of charging infrastructure. I would like to conclude my opening statement there. I am happy to take questions.

Mr BOYCE: My question is to the Automotive Dealer Association. You mentioned that the new Queensland car tax is a tax on a tax and acts as a disincentive to the wider adoption of electric vehicles. Can you elaborate further on how this tax may be negatively impacting the uptake of electric vehicles in Queensland?

Mr Voortman: Sorry, if I could ask you to clarify your question. Did I hear you ask how would we describe this tax as constraining the uptake of electric vehicles?

Mr BOYCE: That is correct.

Mr Voortman: There are not many electric vehicles available on the Australian market. I think the Electric Vehicle Council tells us there are about 16 or 18. We recently did a study which showed that—I will get this information to you on notice—13 out of those 18 vehicles are above the luxury car tax threshold. Then if you add to that the levy that the Queensland government announced prior to the state election last year and implemented in the budget this year, that only adds to the cost. When it comes to those vehicles, they may be luxury but there might be a point at which a prospective buyer looks at the price and decides that they would rather go with an internal combustion vehicle. In my opening statement I mentioned \$20,000, which is the luxury car tax at the federal level on a Tesla S. When you put more money on top of that it simply makes cars more expensive and uncompetitive in relation to other internal combustion engine vehicles.

CHAIR: Just for clarity, you have twice mentioned the \$20,000 luxury tax on the cost of a Tesla S. What is the average price of a Tesla S car? I do not know how much they cost.

Mr Voortman: I might put that question to my colleague. I believe it is around the \$150,000 mark, but that includes the LCT.

CHAIR: That is including the luxury tax, yes.

Mr Tewes: The problem with the Tesla is that the cost varies incredibly according to the specifications. The average cost would probably be about \$129,000, but that can range both up and down from there—significantly up.

Mr BOYCE: You noted that automation will likely result in large job losses among a range of occupations. Can you provide a rough time line of when these job losses will start to occur and what the Queensland government's role may be in these job losses or transitions?

Mr Tewes: I think that, as we mentioned in our submission, the effect of automation depends on a number of technologies being taken up. On the understanding that automation takes up the expected time frame of between five to 10 years, we are looking at driver related employment starting to decrease in that same time frame between five to 10 years. If that is the case then we need to start considering the lead-in to that. Are our training institutions pushing out people who are not going to have careers in the employment for which they are trained? Are we going to have training facilities and training courses that really are not going to be necessary? If we are talking about a five- to 10-year period, then the policy and planning requirements to start evolving the training requirements probably needs to start very soon.

Mr Voortman: The other thing I would add to that is we are faced every day with new forecasts from various organisations, whether it relates to autonomous vehicles or electric vehicles, ranging from ultra-aggressive to not so aggressive to anything in between. What I would say for our members in terms of autonomous technologies is that we have a very important role to play in educating the new car buyer in terms of some of the features that are currently available in vehicles. Autonomous technologies such as adaptive cruise control and lane departure warnings are becoming commonplace in a lot of models, and that is only going to escalate. Increasingly, new technologies are going to be included as standard, and our members will just have to continue to monitor that and make the new car buyer comfortable with the technology. It is in that education process. I am very hesitant to make a commitment about when some of these technologies will become mainstream.

Mr BOYCE: Mr Dale, you mentioned there is growing concern that congestion in our cities could result in excessive economic and social costs. Can you elaborate on these costs, and do you feel these costs are already being felt?

Mr Dale: There is no doubt that if you look at current infrastructure and its capacity to deal with the growing interest in migrating towards cities and living closer in that is a constraint. Environmentally there are significant costs associated with the number of vehicles. Traditionally, Australia's use of public transport is not comparative to other nations such as Europe. We certainly do not have a public transport system that is built around convenience. It is programmed in and therefore its uptake is minimal. We think that as autonomous and shared mobility options of the future become more prevalent they will add to that, but it is likely to get worse before it gets better. We need to talk about educating the population around its true benefits and changing our mindset. If you talk about

autonomous technology, there are some studies which reflect that globally what we did while we were driving—and I do not mean those people who drive as a job, but us driving globally—there are five trillion hours of productivity to be gained.

We need to change our mindset and think about how we can redeploy that capacity. When we talk about the future workforce and the costs associated with retraining, this technology is emerging gradually. The automotive industry has been quite progressive for years. We just heard James talk about different levels of autonomous vehicles. That technology is there, so we are further ahead than we understand. That technology is already autonomous technology, but there is a fear factor which will become a deterrent to participation by some sectors of the community. That is a real challenge. If we do not do something to think about either increasing the infrastructure to allow better access or change the way in which we access our places of work, then we will lose productivity for sure. That is the cost we talk about, both environmentally if we do not incentivise for the right type of vehicles such as electric technology, or if we increase the congestion on roads and increase the level of productivity that is lost.

CHAIR: I have a quick question for the Motor Trades Association. You did answer this a bit in your opening statement, but in your opinion what do you think is the single most important thing that governments, state and federal, can do to support the transition?

Mr Dale: Right now we need to commit to legitimate trials. We talk about and read about announcements of trials in different councils. The reality is the legislation does not permit that, so there is lots of talk and absolutely no action in that space. I am working with technology companies from overseas that are looking to try and launch this technology. We get a tokenistic commitment at the moment on the basis that the legislation does not support the decision-makers in and around using that autonomous vehicle technology. It is a real barrier. We are working with the Redlands shire and the Ipswich City Council at the moment. We have been given approval to do it, yet the legislation does not permit us to do it on public road access.

Mr MELLISH: Following on from that last question, is that an infrastructure thing as well as a vehicle technology thing in that you need a certain area to do a trial in?

Mr Dale: Obviously, safety is paramount. I probably have more faith in the technology because I understand the level of research and development that goes into it, but to align with community expectations you need a safe environment. The legal definition of a road is quite broad. In Queensland in particular anything that is accessible by a car, whether its main purpose was for a car or not, is considered a road, so the legislation prevents that type of activity occurring without a driver for the vehicle.

Mr MELLISH: Going forward you say there would have to be trials, but do you see them being brought in on a very segregated busway or separate toll roads before the mainstream—

Mr Dale: Absolutely. If we look at Springfield, for example, we are working with a small shuttle provider that is fully autonomous. Whilst they are developing and building the infrastructure you embed the technology that best supports it. These vehicles can operate without supporting technology. Because of the latest investment by Queensland and federal governments to the roads out there Ipswich's infrastructure is best suited to trial that technology, but we cannot get anywhere near the roads at this stage. The places we are talking about are university campuses and shopping centres where you have constant routes. This technology will be brilliant. If you talk about keeping people off the road and using transport, it is that first and last mile that we need to address. If you have that type of transport to complement existing public transport you will see much better use.

Mr MELLISH: I see that in your submission you talk about food delivery services. I am interested in your views on the desirability of a statutory framework around that. In your organisation's view, what needs to happen in that space going forward?

Mr Dale: It is a way that we as consumers have come to expect to use things. Our key point there is that we need an enabling regulatory framework around this. There are concerns publicly about the way in which people are employed in that space at the moment on the basis of applications, whether they are an employee a contractor, and the right wages being attached to that are a challenge to try and regulate. It is not our industry. What we want to do is create a regulatory framework that takes into account the workforce but enables business to do what it needs to do in an efficient way. That type of transportation delivery is essential to the future of Queensland and Australia's economy.

Mr MELLISH: In relation to the future of car servicing, it is safe to say that over the last couple of decades it has moved more towards dealer servicing. Vehicle technologies have encouraged that with the cost of codes, and the cost of after-market or third-party servicing has been a bit burdensome. How do you see the future of car servicing with electric vehicles and eventually autonomous vehicles?

Mr Dale: We are yet to see what the servicing requirements are, but some of the tests show that we are talking about shrinking markets and an impact on business. At the moment we are servicing combustion vehicle engines on average every 10,000 kilometres. There is an argument that electric vehicles lack components and moving parts that create wear and tear, so the amount of servicing will decrease by 90 per cent and in fact it will go up to every 100,000 kilometres. You will see shrinking markets. We are going to have to have two parallel workforces in that space. We certainly see that there is probably a need to review the workforce. Because we are dealing with electrical compliances that are quite dangerous, there may be a need to regulate or legislate or licence the profession to service that. There will be a huge change in that space. There will be a shrinking market for service providers. We have worked with AADA and other automotive bodies nationally. There is work being done, and the decision has been made by the ACCC to put consumer choice first. You will see the spread of that work being a decision by the consumer. It is whether the servicing facility has the infrastructure to support the technology that will determine that. The dealers who are our members as well are very fair about that.

Mr Voortman: There is no doubt that EVs are going to need less servicing than the traditional internal combustion engine vehicles. We do not hide away from that fact, but there will still be routine maintenance to be done: battery checks, brake monitoring, checking tyres, replacing fluids et cetera. We also know that electric vehicles, like other vehicles, will be subjected to mass recalls. There have already been some in recent years for faulty steering components and defective parking brakes. I think some electric vehicles had the Takata airbags. When these vehicles do need repairs they will still require appropriately trained technicians. I believe that franchise new car dealers together with the independent sector will be well prepared to continue to do that. Yes, there will be a drop-off in work and, as Brett mentioned, the work on consumer choice is coming to a head following the ACCC's recommendation, but there will also be opportunities for businesses getting into the charging space and the battery replacement space.

Mr Tewes: If I could add something: yes, there have been a lot of claims relating to electric vehicles requiring a lot less servicing. With the early electric vehicles such as the Nissan LEAF and a number of others, data from overseas dealers—not from our members—is that the figures show not as dramatic a drop in servicing requirements as expected. Most of the vehicles are requiring probably about 60 per cent of the servicing that an ICE or internal combustion engine vehicle requires. Yes, there is a significant improvement in durability and requiring less servicing, but not as dramatic as thought.

Mr MELLISH: I will throw to the AADA on this one: what do you see as the price point for electric vehicles before people seriously consider purchasing an electric vehicle, that is, for mass take-up? Is it just a price factor or is it also to do with the frequency of charging points and other issues?

Mr Voortman: We recently lodged a submission with the federal Senate committee, which had an inquiry into electric vehicle uptake. The price point is the No. 1 barrier, but range anxiety and associated lack of charging infrastructure are also issues. In terms of the price point, some years ago the Nissan LEAF was being sold in Australia. It is not currently being sold and it is due to be brought back in a few years. They got it to a point where it was under \$40,000; it was \$39,990. To my mind, that is the number you want to be at, when people are actually in a position to start buying a significant number of units.

The cheapest electric car we have in Australia at the moment is the Renault ZOE at \$47,000. That is the cheapest. To compare it to an equivalent Renault, the Clio, which is an internal combustion vehicle, is around \$18,000 to \$20,000. If someone compares the price of those two vehicles, the difference is \$27,000, so it is tough even at that price point. They will be looking at the Renault Clio and saying that it has three times as much range and it is three times quicker to refuel even when you compare it to fast chargers. There are some perceived disadvantages. In the absence of any rebates, which they do have in international jurisdictions, it is not going to assist purchasers of those vehicles.

CHAIR: On the weekend, in the media I heard about a Hyundai that had just come out at around \$40,000.

Mr Dale: That is correct; it is \$43,000 on the road. The price convergence is expected to start happening this year, but we will see true results by 2022 when they will be reasonably comparative with some of the cars that are midrange and accessible to most families.

CHAIR: I have a question for the Australian Automotive Dealer Association. In your submission you urged caution about applying the overseas lessons directly in relation to electric vehicles. Can you give us a bit more detail on that?

Mr Tewes: The caution is that a lot of the data is derived, obviously, from highly urbanised European-like environments, whereas in Australia we have a much greater dichotomy between highly urbanised urban centres and rural and remote Australia. The policy responses and even the technological responses required for those two environments are quite sharply different to our mind. Consequently, when taking up those lessons they need to be put into the context that what is required in Birdsville is not necessarily required in the centre of Brisbane.

CHAIR: There are a lot of dirt roads to be travelled with few and far between charging stations. I agree.

Mr Tewes: We made the point in our submission that the adoption of the infrastructure to support both electric and autonomous vehicles runs the risk that it will be very rich around urban areas and around heavy traffic freight corridors, but it will create areas of lack where both those aspects are not present. You could be entrenching disadvantage both in infrastructure and economic opportunity if that is not addressed from a policy perspective before the problem manifests itself.

CHAIR: Point taken. I suppose it is a lot like LPG only vehicles, except on a far greater scale.

Mr BOYCE: To the Australian Automotive Dealer Association: on the two examples of Renault motor vehicles, one electric and one internal combustion engine, for my information can you give some figures on the cost of running those vehicles in terms of petroleum products versus what it costs to charge an electric car?

Mr Voortman: We can, but we would have to take it on notice if possible.

Mr BOYCE: Thank you.

Mr Dale: Can I make one comment with regards to infrastructure. Certainly, it is one of the three deterrents and why the uptake of electric vehicles has been slow in Australia. There has been a number of private trials just done where they have driven around Australia. One thing that is a bit of reassurance is if we get the range anxiety right, so you have battery charge technology exceeding 500 kilometres. Tesla is making a claim that within the next 12 months it will be 1,000 kilometres, so if they can do it others will be able to do it.

A 70-year-old retiree just drove around Australia and was reassured by coming into town and seeing lights, meaning there was electricity to recharge the car overnight. There is definitely the capacity to do it. I do not want to say that the infrastructure is not important, but if we look at consumer behaviour, the running costs of a vehicle are significant. In our submission we claim that there was some evidence around running electric vehicles being more than 40 per cent less costly to that of combustion engines.

The big thing is that when we do see movement in this space it will be fast. The second-hand market for combustion vehicle engines will be challenged because when price convergence comes and everyone wants an electric vehicle and you have 20 million registered cars in Australia that are not electric, there will be a market that does not exist for them in the size and scale that exists today. That is one focus we need.

CHAIR: It is a motoring enthusiast's dream.

Mr Dale: Absolutely, but it is something that we need to be aware of, even from a resource perspective. Certainly the value of existing cars to consumers is an issue for second-hand markets into the future, once electric vehicles and new technology really hit the ground.

Mr MELLISH: To follow up on that, do you see any precedents that could be set with the uptake of electric vehicles that will help with the future uptake of more connected or automated vehicles?

Mr Dale: I cannot provide any examples and James certainly mentioned why it worked so well in European countries and that sort of thing. Our country is vastly different, but what we lack we are addressing now, which is certainly the infrastructure to have those charges and also the rate in which the charge can occur. It needs to be comparative to stopping to fill up. No-one wants to spend an hour at a service station on a rapid charge. When we get 15 minutes down to five minutes, it is comparative. If the vehicle price is comparative with other cars, you would be crazy not to do it.

Mr Tewes: To add something there, I would like to give positive feedback to Queensland for the electric superhighway. One point I would make is that it is all very well to have infrastructure with four chargers, unless your car is the fifth one there. If it is taking 14 hours to charge, being the fifth car really creates a problem. It is not a matter of where they are located, but the actual number of electric chargers available.

Mr Dale: Agreed, and where they are located is important. If I think about the impacts on businesses that make a contribution to the Queensland economy, we have service stations that will be impacted by the reduction in fuel sales. We should be acting smart and co-locating those based Brisbane

in a way that can be done safely. If you want to save those businesses and keep them in the market, you need to support the substitution. Just recently we were forced to have them modify their service stations to sell biofuels when we knew technology was not moving in that space; it was actually going towards electricity. Those costs were worn by the retailer. Now we have an infrastructure program that really has not taken into account the businesses that are going to be suffering as a result of changing fuel technologies. We should be looking at infrastructure and where electric charge stations are being installed they should align with current service stations that do that throughout the nation, to see their viability.

Mr Voortman: I think Brett makes an excellent point there. That is why one of the things we were asking for at a federal level was for the federal government to develop a joint strategy for the rollout of low emissions charging infrastructure, which includes those private businesses that are going to be involved or affected, which includes the manufacturers, the state governments and other participants such as electricity retailers who will benefit from this move. I wanted to build on Brett's point there.

Mr BOYCE: Is there going to be a situation where people might be travelling, say, to rural and regional Queensland in an electric car and, although they may not have access to charging stations, they will have a generator in the back?

Mr Dale: I hope the solar panels on the roof are going to do the job. They have an adaptor so they can plug in and charge at home. That is the way in which cars will be charged. You will plug in overnight. Certainly, if you are travelling you need that infrastructure.

Mr Voortman: Yes, that is right.

CHAIR: I have a question for the Australian Automotive Dealer Association. You raised some concerns about privacy and consent regarding the data to be generated and that your members have to be able to access that at a reasonable cost. Can you talk a bit further about your concerns there?

Mr Tewes: The availability of data that will come from both electric and more importantly autonomous vehicles is tremendous and not just telematics, that is, the vehicle data about how it is driven, but also where it is driven, who is actually on board, what are they doing on board. The spectrum for possible data misuse is significant. Therefore, first and foremost that aspect of privacy needs to be considered and who is going to own that data.

The question about access at a commercially reasonable price has to do more with the ability to service the vehicle. Both dealers and the repairers, plus the independent repairers, need to be able to access the correct information, tools and data coming from those vehicles, so that they can actually maintain and repair them as required in a commercially viable manner.

Mr Voortman: To add to that, the work that the government is doing on a consumer data right feeds into what Alex just said. If that consumer wants to give the car information to his independent repairer or his franchise new-car dealer, that should be their choice. I think it is just a your-car your-data type approach that we are talking about here.

Mr MELLISH: This is a question for the AADA. Do you see a need in the future for automated cars to have common manufacturing standards? For example, if you were doing smart phones from scratch now you would not have two different charging systems for iPhone and Android, which are completely non-compatible. Does the government nationally or working cooperatively internationally need to work on a standard set of guidelines or a framework for automated vehicles going forward?

Mr Voortman: I think there is a role for government to play, but whether they mandate the solution—I am always sceptical about arriving at a VHS/Beta type destination. For the smart phones, I suppose, the market has been left to its own devices and generally has settled itself. I still think there is a role for government to facilitate cooperation between the various manufacturers and the other stakeholders in this space.

Mr Tewes: There is one other item that I would like to raise in relation to that question. We highlighted this in our submission. It is the question of the safety of first responders in case of accident, that is, fire, ambulance and police. Of course, electric and, eventually, autonomous vehicles carry a lot of high-voltage equipment. In case of an accident, the whole vehicle may become energised because of that. The Tesla vehicles have a first responder loop that, when cut, will prevent the electrification of any part of the vehicle. However, to be able to access that the first responders need to know where to find it and they need to have the right tool—heavy duty insulated shears—to cut it. There may be a role through Australian design rules or the equivalent to mandate significant similar arrangements for first responders to be able to cut the electricity to vehicles. That is one aspect that needs to be considered.

CHAIR: You mentioned the commonality of charging. Wireless charging has just come out with phones, but I imagine the electromagnetic radiation of wirelessly charging a car—

Mr Dale: We have a company that is actually working here in Queensland to try to get some investment behind them to consider in-motion wireless charging. It exists and we almost had an opportunity to do it for the Commonwealth—

CHAIR: It would have to be in a booth or something?

Mr Dale: No. If you think about being a child and having a racing car track, it is a small infrastructure adjustment but it can do four-lane wireless charging at the moment.

CHAIR: That is very interesting. There are no more questions. There is one question on notice for the AADA about luxury cars and the running costs of EV versus internal combustion.

Mr Voortman: We will deal with the secretariat and get those to you.

CHAIR: Thank you very much. If we could have that before 4 pm on Monday, 26 November that would be great.

Mr BOYCE: Also, in regard to the question on running costs, I was interested in how you see your projections in the future if electricity becomes more expensive and that sort of thing.

Mr Voortman: We will factor that in, too.

CHAIR: Thank you all very much for your attendance. A transcript will be available on the committee's parliamentary web page in due course. I declare the hearing closed.

The committee adjourned at 10.47 am.