STATE DEVELOPMENT, INFRASTRUCTURE AND WORKS COMMITTEE

Mr JJ McDonald MP—Chair
Ms JM Bush MP
Mr TA James MP
Mr D Kempton MP
Mr SR King MP
Mr BJ Mellish MP

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PUBLIC HEARING—INQUIRY INTO E-MOBILITY SAFETY AND USE IN QUEENSLAND

TRANSCRIPT OF PROCEEDINGS

Tuesday, 22 July 2025

Brisbane

TUESDAY, 22 JULY 2025

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The committee met at 1.59 pm.

CHAIR: Good afternoon. I declare open this public hearing for the inquiry into e-mobility safety and use in Queensland. I am Jim McDonald, member for Lockyer and chair of the committee. With me here today are: Ms Jonty Bush, member for Cooper and deputy chair; Mr Terry James, member for Mulgrave; Mr David Kempton, member for Cook; Mr Shane King, member for Kurwongbah; and Mr Bart Mellish, member for Aspley.

The purpose of today's hearing is to assist the committee with its examination of e-mobility safety and use in Queensland. This hearing is a proceeding of the Queensland parliament and is subject to the parliament's standing rules and orders. Only committee members and invited witnesses may participate in the proceedings. Witnesses are not required to give evidence under oath or affirmation, but I remind witnesses that intentionally misleading the committee is a serious offence. I also remind members of the public that they may be excluded from the hearing at the discretion of the committee.

These proceedings are being recorded and broadcast live on the parliament's website. Media may be present and are subject to the committee's media rules and the chair's direction at all times. You may be filmed or photographed during the proceedings and images may also appear on the parliament's website or social media pages. Please turn your mobile phones off or to silent mode. Finally, please remember to press your microphones on before you speak and turn them off when you are finished. I now welcome witnesses from the RACQ.

KANE, Dr Michael, Head of Public Policy, Royal Automobile Club of Queensland

TUCKER, Mr Joel, Road Safety and Technical Manager, Royal Automobile Club of Queensland

CHAIR: Good afternoon, gents. Would you like to make an opening statement before we start our questions? We have been having some technical difficulties with the sound. For those watching online, please bear with us, but the *Hansard* transcript will be uploaded in due course for clarity and completeness.

Dr Kane: The RACQ has made an extensive submission to the inquiry. I would like to start by saying that the RACQ's credibility and reputation in public safety and road safety is based on being evidence led and letting the facts talk. What we have done to support that is we have put RACQ money into sponsorship of the Jamieson Trauma Institute co-funded with the Royal Brisbane and Women's Hospital Foundation.

Our submission is very much based on what we think is an evidence-led strategy. We say there are four key themes that need to be considered. We need to be cracking down on dangerous and illegal devices. These devices are, in fact, not devices; they are vehicles and they are effectively motor vehicles. We believe we should be strengthening the enforcement of the rules for these illegal devices but also strengthening the enforcement of the rules for the legal devices that should be allowed. However, we do need to have enforcement and we can reduce injury by improving rider protection. Fourthly, we need improved education and accountability including targeted messaging for riders and parents of young users.

It is important that the Queensland government and the Queensland parliament act and take a forceful position. We are at the forefront of the e-scooter and e-mobility revolution in Australia. It is important that we set the standard not only for Queensland but also for Australia and that we also set a road safety culture because we are seeing that some of the worst behaviour is displayed by very young people and young riders and they are our future motorists. We have a culture at the moment which is really saying to future motorists: you don't need to follow the rules.

I would also like to make a point about the issue of vehicles. The fundamentals of road safety around vehicles is that a vehicle is required to be registered, it is also required to be roadworthy and the rider or driver is required to be trained and have a licence. That is what we have to do here for those devices which are, in fact, not devices and are actually vehicles.

I would like to hand up an aid to the committee.

CHAIR: Leave is granted for the tabling.

Dr Kane: This aid is a one-page summary of the RACQ submission. As you look at this paper, you see on the left we have e-scooters and e-bikes. The matrix in that first column to the right is legal devices and under that we have what reform is required. For e-scooters we say for those legal devices there is some work that is needed, particularly around transitioning hire schemes to sit-down devices; getting changes to helmets to full face helmets for standing riders; and enforcement and education.

With e-bikes, we are saying there is no real problem with e-bikes and we should not be getting caught up with legal e-bikes. They are a good thing. There is some need to enforce existing laws as is the case with motor cars and motorbikes. The real issue is with what we would call the 'illegals'—illegal e-scooters that are going more than 25 kilometres per hour. We call them illegal vehicles because as they go more than 25 kilometres an hour, they are effectively a moped or a motorbike. However, they are not compliant with Australian Design Rules so they are unroadworthy and people are not licensed and they are not registered. It is the same with e-bikes. These are effectively motorbikes that are not registered, not roadworthy and people do not have a licence. We are saying focus on where the problem is and recognise that there is a bit of cleaning up to do around the legalities. The real problem is with the illegal devices. I am open to questions.

CHAIR: Thank you very much for the submission and the additional information.

Mr MELLISH: Thank you for your very detailed submission and also for providing that really good summary in terms of what actions you are recommending going forward. Given that this inquiry has a long period yet to run, what actions do you think the government can take before the inquiry concludes?

Mr Tucker: RACQ thinks that one of the things we can look at straightaway is the enforcement of the existing rules. The laws in relation to what constitutes a legal device and also the use of those devices, the people who are using them and their ages—all of those things can be enforced now and we think they can be enforced better. We would encourage the government to look at options for enforcing those rules with transport inspectors, for example, as well as police. Our submission includes a bit of information about that idea.

Mr MELLISH: What do you see as the current enforcement gaps? Where are there laws that are not being enforced as much as they could be?

Mr Tucker: From what our members have told us they want to see better enforcement across-the-board in relation to rider ages, helmet use, where and how the devices are being used, the speeds that the devices travel, giving way to pedestrians—all of the above basically in relation to the road use and path use of EPMDs and e-bikes as well. These are all things that we think improved enforcement could help to address.

Dr Kane: Just to add to that, under the law as it stands if a device is actually a motorbike, we can have transport officers determine that that device is a vehicle, it is an unroadworthy vehicle and it should be impounded. You have to think that if someone was driving a car or riding a motorbike and it did not have indicators, it had bald tyres, it had no mirrors and a person did not have a licence, that person would not be riding or driving that vehicle any further if they were stopped by police or a transport officer. They would be asked to vacate the vehicle and that vehicle would be left on the side of the road or would be taken away. That is what happens with responsible management of illegal and unroadworthy vehicles. We have to start applying what we have already been doing to these devices that started off in people's minds as toys, but these toys have gotten faster and bigger and have evolved into vehicles. However, they still have a mentality that it is just a joy-riding toy. It is not. We have now devised these things as vehicles and they need to be treated with the full weight of the law in the same way as we apply to other vehicles on our roads.

Mr Tucker: If I may, I will add one more short-term thing that I think could help as well. RACQ mentioned in our submission that it is important to call the devices what they are. Once a vehicle exceeds the requirements for being an e-bike and it becomes an illegal unregistered motorcycle, call it that. It is no longer a big-wheel e-bike or something like that; it is now an unregistered motorcycle. Just like if a person rode an unregistered dirt bike down the footpath it would not be accepted, if it is an electric powered vehicle—it is the same thing; it just has a different motor—it should be treated the same way.

Mr KING: If this particular bike you are talking about has pedals but could be powered solely by the electric motor and you do not have to pedal—is that what you are talking about as well as ones with no pedals?

Mr Tucker: Yes. Once the device is powered only by the electric motor and the device can be ridden at any speed higher than the requirements in the design rules, that bike essentially becomes a motorbike at that point because it is all throttle controlled. If you are doing 40 kilometres an hour on an e-bike that is not being powered by the pedals and it is only being powered by the electric motor, that is essentially a moped because mopeds max out at 50 kilometres an hour under the regulation. You need to have a car licence to drive a moped.

Mr KING: I just wanted that clarification. Thanks.

Mr KEMPTON: I walked down to Queen Street Mall this morning and these illegal e-scooters were in the gutters, over fences, up trees—all over the place. If we did the same with motor cars and motorbikes there would be chaos. Would you support designated parking spots for these things that they must be returned to?

Dr Kane: Yes, absolutely. In fact, we have done our own research as to whether it is viable. The benefit of hire scooters is their convenience and flexibility. We did some analysis using network theory that showed that in a CBD type area you could find and identify places where councils could allocate some required parking and hire scheme scooter companies could use geofencing to require parking. I say to the member for Cook that I had a similar experience this morning. I got off my bus and I almost did not step on the footpath; I almost stood on a scooter. I did feel like I should throw it in the bush but I thought better of that.

Yes, it should be done. In our submission we make the point that particularly in the inner-city built-up area the most important people we have in the city are the pedestrians. They are the ones who move around, spend money, take their knowledge and share it with other people. Everyone else is just a step behind becoming a pedestrian. The cities are about pedestrians. If we fundamentally do not protect pedestrians then we have defeated the whole purpose of having urban areas in our cities.

CHAIR: That is an interesting point.

Mr MELLISH: In relation to the hire schemes, I note that there is pretty specific geolocation technology that is able to be applied and there are things like taking a photo of where it is parked—and coming back to the experience of the member this morning, I think I went past three people on hire e-scooters without helmets this morning. Is there more that can be done to ensure helmet wearing is done from the hire schemes, not in terms of enforcement but in terms of the technology from the company's perspective?

Dr Kane: We believe so. There are two solutions: helmets protect people from injury and sit-down e-scooters limit injury. Firstly, that will limit the damage they do. Secondly, we believe we can move to AI camera enforcement. An AI camera is not recording everything it sees but it notices if something is not correct and then takes a photo. All the hire e-scooters have a number on the front, which is linked to the person who has hired the scooter and their bank account. If an AI camera determines that the person on No. 135 is doubling someone, riding down the wrong side of the road or not wearing a helmet, it could take a photo and then a human could review it and say, 'Yes, an offence has occurred.'

We are saying that a new offence should be created. If a hired e-scooter were used by a person in an illegal way, a fine would go to the e-scooter hire company and it would simply take the money out of the bank account of the user. That is no different from if you speed or do not pay a toll in a hire car. The same system should be and could be applied to hire e-scooters.

Mr JAMES: Michael, it seems that the biggest issues are with the illegally imported e-scooters. What would you recommend we do with them? Should we confiscate them?

Dr Kane: If a person drives a car or rides a motorbike that is unregistered or not roadworthy, we impound those vehicles. We do believe that we should be moving to empowerment, which would require a resource commitment from police, but we also believe we should be using transport officers, who do have that authority now. They may not have the authority to actually stop traffic but they do have the rights under the act. The act itself does not refer to police; it refers to an authorised officer, and an authorised officer includes a transport officer or a police officer.

We are suggesting we do blitzes, and that could include schools and shopping centres. You are using an illegal vehicle in a public space which is unregistered and unroadworthy and you do not have a licence. This is important. Yes, this will take a bit of effort, but if we do not make the effort now then we will be changing the whole nature of road safety culture in this state. It is already getting out of control. We have young people who do not think they need to obey the rules or need to have a

licence. In fact, if you go to Transport and Main Roads' statistics, the number of people involved in fatalities who did not have a licence has jumped since 2020. Our road safety culture is going in the wrong direction and e-mobility is just part of a bigger problem that we are facing. We do need to act strongly.

Mr JAMES: As a follow-up question: if we confiscated them, what would you do then? Would you destroy them?

Dr Kane: We would put them through a recycling process. What happens now is that old e-scooters can be taken to the tip or to the council resource centre—whatever it is called these days. The batteries are taken off and go through one process and the metal is recycled through another process. We have existing processes to do that for e-bikes and e-scooters which have reached the end of their life. We have those systems operating today.

Ms BUSH: Thank you, Michael and Joel, for coming in today and for your submission. It is clear to me that your submission suggests that there is a place for these devices but perhaps it has got away from us and we need to talk about better safety protocols, a better regulatory environment, better enforcement and perhaps the social contract between users, pedestrians and other vehicles. I want to talk with you about the social contracts, particularly in relation to parking. Have you looked at any studies or research which suggest a better way of regulating the parking? I know it has come up in some other submissions. It is probably one of the biggest issues in my electorate because they are all over the footpaths. Can we look at something to help the social contracts?

Dr Kane: We do believe that having required and dedicated parking is fundamental to that. One way the system can work, and does work, is that you continue to pay for the hire of the device if you do not park in an appropriate place or if you park in an illegal place. The system can do that now. There are issues with the geofencing, but that is less problematic in some areas, particularly in lower urban environments with fewer buildings. Those systems can be made better and better technology can be applied. It is fundamental.

When e-mobility devices are used in an appropriate and legal way, they encourage and enable greater mobility and take cars off the road and make our cities better. If we do it in a way that stops pedestrians moving around then we fundamentally fail. Pedestrians are getting out of cars, getting off buses and getting off e-scooters and they are fundamental to our social contract. We always say that the pedestrian is at the top of the tree, and we need to look after the pedestrian. If we fail to do that then we fail to deliver a proper transport mobility system.

CHAIR: I thank the RACQ for giving a submission and bringing its corporate profile and weight to this. It is a very well-respected organisation. Your submission is very clear about treating those high-powered devices as unregistered motorbikes, with all of the consequences. Have you turned your mind as to how that could happen? A lot of the devices out there are very high powered. Joel, with your technical background, do you know if those devices could be fitted with a speed limiter? If we said that 25 kilometres was the limit for these devices otherwise they would be unregistered motorbikes, could those devices be fitted with something to limit the speed to 25 kilometres? Whilst impounding devices might be a solution at a point in time, we need to give people the opportunity to limit the speed on those devices or let them be motorbikes—have a transition period in place.

Mr Tucker: You can limit the power delivery and speeds of devices. That is something that can be technically done. In a lot of cases it is done when the device is put up for sale. The problem is that some people undo that, particularly the private operators of the devices. The hire schemes actually do a really good job of enforcing those requirements on their devices. It is a challenge to get people who have modified or tampered with a device after sale to put a limiter back on or reactivate a piece of software that limits something. The risk is that people will change it back again once the risk of enforcement is lower.

One option for how you could address that moving forward is you could set a date in the future and say, 'From this date forward these devices will be confiscated and recycled. You have until then to make these devices compliant.' You could put the onus on the owner of the device to make sure that the device is compliant with either the e-scooter rules or the ADRs if it is beyond those requirements of the law and is then a motorcycle or a moped so it can continue to be used in a public place, otherwise it will be for private property only. At least people will be warned that those devices will no longer be compliant. That has been done in a range of other industries in the past as well.

Dr Kane: To add to that, on page 22 we have a photo of what they do in the Netherlands. The police have a device that can actually measure the speed. They can determine whether a device has been tampered with to allow it to go faster or is legal. Some illegal e-bikes are capable of being motorbikes and can be made compliant with ADRs, but some are not able to be made compliant. All transport officers would know those rules.

CHAIR: Thank you for that. It is a very good submission. Joel, when you answered a question from the member for Kurwongbah earlier, did you say 50 kilometres or 50ccs for the mopeds?

Mr Tucker: I will refer to the piece of paper here. A moped is a motorbike that is fitted with either an electric motor or an internal combustion engine with an engine capacity of not more than 50 millilitres, or 50ccs, and has a top speed—as rated by its manufacturer—of not more than 50 kilometres an hour. That is the specification there.

Mr KING: They get modified too. My question is along the lines of geofencing. This might be something in *Star Wars*—I do not know. Is there a way to have a zone or an area where you can stop them? I know that there are certain areas where the hire ones just cannot go, and that is because the hire companies control that. Does that technology exist and is there a way to reverse it? I have a drone that I cannot fly near the dam in my area. If I take it up near the dam, everything cuts out. It will not work. It has obviously been fitted with a device.

Dr Kane: You can do that with the hired e-scooters, but you would not be able to do that with private e-scooters. From a *Star Wars* point of view, the answer is it is technically possible. More and more we are seeing motor cars and motorbikes fitted with SIM cards, but we do not hand that authority or power over to government to dictate where you can and cannot go. It is technically possible, but I do not think that is something we want to get involved in in this discussion.

Mr KING: If you had something that fried electronics, you would probably stop every Tesla on the road!

Mr Tucker: I will address your comment about people modifying all sorts of vehicles. We have got ourselves into a very dangerous place in Queensland where the current road-use culture—both the use of paths as well as the use of EPMDs and e-bikes—really looks like people will do whatever they can get away with. That presents all sorts of issues for safety. The laws and the responsibilities that we have as Queenslanders are about looking after each other and doing the right thing. It should not be about, 'What can I get away with?'

Dr Kane: To add to that—the hooning laws were in part about modifying vehicles and drag racing et cetera. We responded to that by moving to empowerment laws and other states followed in terms of their laws. That was relatively successful in terms of limiting that road culture's expansion. We have been successful with this type of approach in the past.

CHAIR: Thank you for that guidance, Michael.

Mr KEMPTON: Is there a case for compulsory third-party personal injury insurance, and how would you implement it?

Dr Kane: We already have third-party insurance for legal motorbikes. We should be applying the existing law. We should not be allowing anything that is not roadworthy to be insured or registered. We would argue that the fundamentals for road safety are: roadworthy vehicles, registered vehicles and licensed drivers or riders who are subject to insurance.

Mr KEMPTON: Sorry, I meant specifically in relation to legal e-scooters where at the moment if somebody is injured, a third-party, they are on their own.

Dr Kane: We do not believe that it would be necessary to ensure that people can take out their own personal insurance. People are covered for workers compensation. We do not believe that bringing in another layer of insurance makes sense with e-scooters which are presently legal. There is also the hire e-scooters which would also have public liability insurance.

CHAIR: We have run out of time, but the member for Cooper has one question about infrastructure that she would like to ask and you can take on notice.

Ms BUSH: Feel free to take it on notice. I noticed in your submission you have gone into a lot of detail around the built environment and around protected cycle lanes and more that can be done in that space. Did you want to expand on anything in your written submission? If you can, can you do that quickly or would you prefer to take that on notice?

Dr Kane: We can answer that now. We do think it is to society's benefit that we do have more investment put into dedicated separated cycleways and we are making submissions, and I will take some relief from the Queensland government here, and we are putting a lot of work into saying to the federal government that they need to be co-contributing to cycling pathway infrastructure, particularly around where we have major urban centres of education and jobs because it is, as we put in our submission, the cheapest form of infrastructure to address congestion so it is very important that the federal government does take responsibility. Before I go, I want to add one more comment: we are doing some stability testing on stand-up e-scooters to further reinforce the work we have done. There

are a number of parties who say that stand-up e-scooters are unstable and sit-down e-scooters are more stable. We are actually doing research with QUT on that and we will make a further submission on that to the inquiry once that research has been finalised with QUT.

CHAIR: Thank you for appearing before the committee today and for the information you have provided.

BRYANT, Mr Jayden, General Manager, Australia and New Zealand, Neuron Mobility

MATSEKH, Mr Arkadiy, Chief Scientist and Director, Foucault Dynamics

PETERS, Mr William, Head, Asia-Pacific, Lime Network Pty Ltd

CHAIR: Welcome, gentlemen. I invite you to each make a short opening statement and then the committee will have questions for you.

Mr Peters: Thank you for the opportunity to address the committee today. My name is William Peters and I am the head of Asia-Pacific for Lime. Lime has proudly been part of Queensland's e-mobility journey from the beginning, helping Brisbane embrace e-bikes and e-scooters to be the most experienced city in the country for e-mobility and micromobility, and now we are serving locals and businesses alike on the Gold Coast with e-bikes.

As one of the first companies to launch shared micromobility and the largest shared electric vehicle operator in the world, we have vast global experience in developing these regulated and safe micromobility systems, enhancing livability to reduce cities' reliance on cars, relieve pressure on congestion and get Australians using more active transport. As the largest e-mobility company in Australia, we are eager to continue to engage with this committee and this inquiry to ensure that Queensland's e-mobility scheme remains safe for riders and the community, is sustainable and is affordable.

Shared e-mobility schemes have delivered a myriad of benefits for Queensland. They have direct tangible impacts on the local economy through job creation, operational investment and infrastructure support. They incentivise active mobility, improve network connectivity and reduce Queenslanders' dependence on private vehicles. The modal shift benefits of shared e-mobility schemes have been underscored by Lime's surveys. Eighty-five per cent report they rely less on personal vehicles, 73 per cent report that their public transport usage has increased and 84 per cent report that e-mobility enhances the quality of urban living. Crucially, shared e-mobility schemes are controlled, regulated and purpose designed and insured. They operate within tight regulatory parameters and frameworks agreed to with our contracted councils that prioritise user and community safety.

Lime's approach is built on verifiable safety and accountability. Each vehicle incorporates thousands of sensors, monitoring speed, location and usage patterns to effectively control rider behaviour. Speed limits are hardwired and managed through our accurate and responsive geofencing technology. This technology also governs no-ride and no-park zones as agreed upon with local governments. Every journey is tracked. Vehicles have a unique identifier and Lime has comprehensive insurance which also covers third parties. This contrasts with privately owned e-mobility devices which operate without adequate oversight or safety standards. These vehicles are often illegally overpowered, lack speed governance and are not tracked. This combination can pose serious risks to the individual user and the general public.

Drawing on empirical evidence from our operations across Australia and globally, we have three key recommendations for the committee to consider. These recommendations aim to ensure Queensland's e-mobility scheme remains safe, well managed and sustainable in the long-term. Firstly, the definition of personal mobility devices should be reviewed by the Department of Transport and Main Roads to ensure that emerging designs and innovations are accommodated within a safe framework. This will reduce any barriers to the effective adoption and deployment of safe, innovative e-mobility technology across Queensland. Lime recommends TMR consider a flexible range around maximum lengths, widths and weights of devices and a consideration that shared devices, when deployed with controlled measures such as speed limiters, should be considered separately from private devices.

Secondly, we urge the Queensland government to support calls for the federal government to enact tighter regulations for privately owned e-mobility devices and the importation of them. The lack of controls on these devices warrants the strengthening of the importation laws and regulatory standards to mitigate the risks associated with high-powered e-bikes and e-scooters. The current standards of devices are being flouted by importers and retailers of overpowered devices and because the federal government is not acting, state government regulators such as police are left to try to enforce both technical standards and user behaviour.

Lastly and thirdly, the Queensland road rules should permit personal mobility devices to be ridden like regular bicycles. This will ensure consistency across the network with bicycles, e-bikes and e-scooters and the consistent use of designing bike paths, cycleways, shared paths, bike lanes

and other road areas used by active transport. This would allow more riders who want to do the right thing to follow the road rules in a safe manner and enable government, operators, councils and advocates to mount simple and consistent education campaigns around riding safety and following the law.

We also want to acknowledge that there is ongoing concern from the community about shared devices being parked safely and neatly. For both Brisbane and the Gold Coast Lime's vision is one where we can partner with local councils to deliver large-scale parking infrastructure. This will help us get to a critical mass where we will be able to restrict parking to designated areas. Currently work is underway to deliver a mass parking solution funded by Lime for the Brisbane CBD alongside Brisbane City Council. We have already been rolling out pilot bays to begin this process.

I would like to conclude by thanking the committee for having us appear today and for their interest in learning about our operations across the 30 countries and five continents in which Lime operates. We are proud of the leadership Queensland has taken with e-mobility. I want to thank the Queensland government, local government leaders, including Lord Mayor Adrian Schrinner and Mayor Tom Tate, as well as the Queensland community for their support. I am happy to take any questions you may have and thank you for your time today.

Mr Bryant: Good afternoon, Chair and members of the committee. My name is Jayden Bryant, General Manager for Neuron, one of Australia's leading operators in e-mobility. We thank you for the opportunity to contribute to this inquiry today. Since launching in Brisbane in 2019, Neuron has expanded to Bundaberg, Rockhampton, Townsville and Yeppoon, operating over 4,000 devices in Queensland, facilitating over 10 million trips and covering over 21 million kilometres of travel.

Today I want to discuss the significant benefits of rental e-scooters, emphasising their superior controls and regulatory environment compared to private devices and outline our key policy recommendations to further improve their integration into Queensland. Rental e-scooters are a cornerstone of Queensland's transport landscape, offering flexible, sustainable and affordable mobility. It can be as cheap as a couple of dollars a day for regular users to use this form of transport. They allow for greater safety controls and governance than private devices currently. Some of these differences between rental and private e-scooters include they are speed restricted. Rental devices are capped to never exceed the maximum speed limits as well as automatic speed reductions in higher risk areas. They are easily identifiable. They are equipped with registration stickers to identify riders engaging in illegal or unsafe behaviour. They are trackable: GPS enabled for enhanced accountability and assistance in police investigations. They are insured. They are covered for both personal, accident and third-party liability, unlike private devices. They are supported by rider education, including comprehensive safety education on the riding rules through in-app messaging, campaigns and in-person safety events, and they are regularly maintained and subject to routine servicing and often daily safety inspections.

Our data shows 1.3 million unique users in Queensland with over 30,000 monthly riders averaging 2.1 kilometres per trip often during peak commuting hours. In Brisbane almost a quarter of our riders use e-scooters to connect to public transport, enhancing first- and last-mile connectivity. Additionally, in regional areas where we operate where public transport is often limited, they offer a transport mode for people who do not have the luxury of affording a personal car. Approximately 20 per cent of trips occur after dark, providing a safe option for shiftworkers such as nurses and hospitality staff, with female riders reporting feeling safer on rental e-scooters than alternative transport options at night. Unlike private devices, rental scooters incorporate cutting-edge safety innovations and these features allow for over 99.9 per cent of our trips to be incident free, offering a safety profile comparable to bicycles.

Economically, rental e-scooters contribute significantly with two-thirds of trips leading to local business purchases, averaging over $61 per trip. In Brisbane our services are generating an estimated $117 million annually into the local economy and support 681 local and direct jobs, saving millions of road maintenance costs. E-scooters enhance accessibility for the five per cent of riders with disability, such as those with chronic pain or conditions like multiple sclerosis. For tourists, e-scooters boost spending and mobility, enhancing experiences at events and attractions as shown by studies from both Griffith University and the University of Queensland.

We have five key policy recommendations in our submission. One is stricter regulations on private e-scooters: introduce minimum safety standards such as wheel size and anti-tampering features as well as mandatory education at point of sale for retailers. Another is harsher penalties and better enforcement; increased penalties for reckless riding across private and rental devices, with stronger enforcement to deter dangerous behaviour. Specifically, if a device has been illegally modified to deliberately exceed the maximum speed limit by law, impounding should strongly be

considered rather than a speeding fine. Another recommendation is improved injury data collection. We need to enhance hospital injury data collection to distinguish between private and rental e-mobility incidents allowing for more accurate information to better understand and quantify the problem. There needs to be strong investment in safe riding infrastructure. Research shows the ideal place for bicycles and e-scooters is designated separated infrastructure providing safe riding spaces, outcomes and improved ridership, compounding the benefits of e-mobility. Finally, there needs to be greater road access for e-scooters. We should allow e-scooters on the roads by removing the white dividing line rule.

In conclusion, rental devices, with their advanced safety controls and innovations, provide a safe, sustainable and inclusive transport option, allowing transport for Queenslanders who may not have access to public transport or a personal car. Our recommendations aim to address safety concerns, particularly around private devices while maximising the benefits of e-mobility in Queensland. Thank you for your time and I look forward to your questions.

Mr Matsekh: Good afternoon, Chair and committee members. I am Arkadiy Matsekh, director of Foucault Dynamics. I am an expert in electric motor design and testing for transport applications, including propulsion motors for electric aviation, actuators for robotics and traction motors for light electric mobility devices. Our business has developed a brand of compliant electric bike motors branded as Recycles—Sustainable Urban Mobility and operates a light electric propulsion laboratory where we have developed and can implement rigorous testing protocols for e-mobility components, as well as complement them with field testing.

Today we face a critical paradox in Queensland's e-mobility landscape. Current regulations tightly restrict compliant manufacturers whilst the market is flooded with unregulated components capable of 1,500 watts or even more. From a technical perspective these high-powered devices require structural modifications of regular bike frames like torque arms or reinforced tubes which most users simply do not install, creating genuine mechanical failure risks during operation. Through our testing and component development work we have demonstrated that responsible design approaches can deliver excellent performance within regulatory frameworks. Our laboratory develops motors with honest power ratings and comprehensive testing protocols, contrasting with the inflated and overpowered specifications common in this unregulated market. Unfortunately, numbers do sell.

The solution is not restricting legitimate users further, but modernising our regulatory framework. We need a graduated classification system like Europe's Pedelec standards, that distinguish between different power categories. For standard bicycles, anything with continuous mechanical power output above 500 watts should be classified as a motor scooter or a motorcycle and regulated accordingly. Cargo bicycles with significant load capacity beyond the rider should be permitted motors up to 1,000 watts with separate regulation, likely including mandatory speed limitation, as these devices will become essential for replacing car trips in urban logistics.

We should also consider removing speed limits for low-power motors or setting speed limits of 32 to 35 kilometres per hour following international experience and enabling cruise control functionality that already exists in most modern controllers. Low-powered motors with continuous mechanical power output of 200 to 250 watts are physically incapable of propelling typical bicycles beyond 35 kilometres per hour. They naturally find their maximum speed and simply stop accelerating. These are human-scale speeds readily achievable by a trained cyclist like myself. The current hard motor cut-out at a relatively modest speed of 25 kilometres per hour creates significant user discomfort, often pushing users to circumvent restrictions, including seeking illegal components and hacked controllers or display units and, therefore, sending the market a demand signal for illegal components and thus launching a vicious cycle of noncompliance. Legalising cruise control for speed limitation would align legislation with current technical reality while providing riding comfort to users.

Most importantly, we must regulate the component supply chain that enables dangerous non-compliant builds. As independent technical experts, we offer our laboratory service to support this transformation. We can provide certification testing for all industry participants, from commercial operators like our colleagues here today to component manufacturers, creating consistent safety standards across Queensland's e-mobility ecosystem. We are also at an early stage of commercialisation of an Aussie-made electric motor testing platform, with light electric mobility motors as one of the types of motors under test. In collaboration with Queensland University of Technology, within the scope of industry-led capstone projects for engineering students, we are also developing a platform which can test electric bicycles' energetics and power output as the whole device on the system level.

In conclusion, I would like to say that the current system forces responsible businesses to compete against products that ignore safety requirements. With proper regulation of components, graduated performance standards and adequate infrastructure, we can foster innovation whilst protecting public safety. Safe infrastructure, combined with clear Australian regulatory frameworks, will also create opportunities for local manufacturing by helping to level the playing field and, through this, contribute to our technical sovereignty. As a local business dedicated to promoting ecological sustainability and active transport, we are ready to offer our extensive expertise to work with government, industry and stakeholders to make Queensland a model for sensible e-mobility regulation.

Lastly, I would like to add that, having said the above, speaking from extensive personal cycling experience, with about 140,000 kilometres ridden on Australian roads in the past 13 years, I must emphasise that the primary safety challenge, though important, is not device specifications alone, it is insufficient dedicated infrastructure. The coexistence of light urban mobility with motor vehicles creates fundamental risks and deters potential users from adopting modern e-mobility solutions. We need separated infrastructure, physically separating vulnerable users from heavy motor vehicles and further separating pedestrians from manual and electric bicycles and other forms of personal electric rideables, alongside proper components and mobility devices sales and operation regulation.

We must also seek cultural shifts where heavier, more powerful and more protected road users must always give way to more vulnerable road users with the pyramid—pedestrian, bicycles, e-mobility device, car—principles that are already present in the road rules but not necessarily obeyed by the public. The increase in uptake of active modes of transport, supported by infrastructure projects such as more physically separated and connected active transport infrastructure featuring the so-called 'filtered permeability', which has proven exceptionally successful in European cities such as Freiberg, Munster and Groningen, will likely stimulate these cultural shifts.

Mr MELLISH: This question is to the representatives from Lime and Neuron. You both mentioned how every journey is trackable. You know where your e-scooters are at all times yet there are still a large percentage of users not wearing helmets. What more can be done from your end to ensure better use of helmets as it is a legal requirement?

Mr Bryant: I will speak first to that. Helmet use is a behavioural issue and something that we have been trying to tackle since we first entered the market in 2019. Neuron pioneered the original helmet lock. If you remember, they used to be hung off the handlebars. It is scattered. It is still partly an issue, but it is something that we are doing more on to improve it. We have introduced things like the helmet selfie to incentivise users to prove that they are wearing the helmets. Essentially, we are trying to give every single opportunity to a user to obey the law by ensuring helmet availability. We have introduced helmet fines as of last month. We provide a helmet on every scooter where we can, but we are still subject to vandalism and theft of the helmets. We have wanted to introduce fines significantly before that to prevent vandalism and theft.

The issue with it is, without getting too technical, the part that it is plugged into, let us say, has 99 per cent accuracy of believing that there is still a helmet plugged in on the device. When you take the remaining one per cent and you times that by a million trips, if we were to fine users we would be saying to one per cent of those we are going to fine you as you did not return the helmet. We now have AI technology and we are using that on top of the end-trip parking photo to have a high degree of confidence to fine the users who are not actually returning the helmet. We believe this will have a big impact on ensuring the availability is there. We have also worked with QPS on refining the helmet messaging. Every user is prompted at the start of a trip that it is a legal requirement to wear a helmet and you can be fined up to—I do not know the exact figure, it increased about a year ago. We are essentially doing everything we can to lead a horse to water basically so they have no excuse if they are caught and fined by police. We are investigating some new emerging technology around this as well.

CHAIR: Thank you, Jayden. William, you have something to add?

Mr Peters: Further to Jayden's point, it is a multifaceted approach. In our global markets, we have Australia, New Zealand, Canada and Israel that have mandatory helmet laws. It is a cultural shift. We have seen when people do not want to wear helmets they are very good at avoiding it. To those points, we have incentivised it through cheaper rides, we have made sure that helmets are available and we have worked with our partners like Brisbane City Council on education campaigns. There is more that we can do. From Lime's perspective, we are redesigning a helmet lock to make it more intuitive. We have worked with our partners and Neuron in Melbourne to enforce different elements. I would say that there is a technology point and there is the user point. At the end of the

day, the user needs to want to wear that helmet and it is critical. There is more to do in this space. We are working every single day. We are putting ambassadors on the ground, we are running events and we will get better, but it is not something that is going to go away overnight and we need a whole-of-government approach to keep people riding, whether they are private devices or shared devices, with a helmet on.

CHAIR: I know the question was directed to Lime and Neuron, but Arkadiy do you have something to add from your technical expertise?

Mr Matsekh: Yes, I do, maybe just as a user. I probably have more kilometres than everybody else in the room in my legs. Looking at the European experience, and when I happen to ride in Europe, it is actually a culture shock. They do not have mandatory helmet-wearing laws. However, they do have a very different culture and they do have this correct culture pyramid. We actually do have that same thing in our road rules. I have actually started driving. I am turning 47 in a week's time. I just went through all the traffic rules just now. Cars are supposed to give way to bicycles and bicycles are supposed to give way to pedestrians. However, the public is not actually necessarily following those rules. I think we need to increase the amount of protected infrastructure and implement things such as filtered permeability—that is, prioritising vulnerable users over heavy vehicle users. Of course, I know it is a really hard sell in Australia. This alone would increase the safety.

A piece of styrofoam on your head will not protect you from being hit by a car, which I can say as someone who has been hit by a car. I had a smashed helmet, of course. I am a racing performance rider, but as an everyday rider I can say that it is maybe even redundant in the sense that we might just try to punish those who are not at fault and, of course, a major source of threat to vulnerable road users is vehicles. We basically need to seek to address a culture shift. The more people adopt e-mobility devices and get out of cars—get on bikes and on scooters—the more we may actually improve the situation. Of course, we currently still need to wear a helmet—a little piece of plastic on our heads—to protect ourselves.

Mr JAMES: Following on from what you just spoke about, you also spoke about cruise control on e-scooters. Is it possible to implement variable cruise control such as on a vehicle so it actually stops when it is going to go near or hit somebody or a car?

Mr Matsekh: You will need to make it much more expensive because you need LIDAR and you have a radar, this kind of thing. Of course it is possible, the question is: is it practical to keep stuffing up the devices with advanced technology or we still might be just considering electric bicycles that possess human level power levels. I brought an example of a compliant electric bike motor here. This electric bike motor, it is a front-wheel drive. This is pretty much what can make the power similar to what I can do on a bike as a performance cyclist. If somebody cannot do that by their own legs they can do it with this one. If I am allowed, as a regular user of a manual bicycle, to ride this way you probably need to just rely on people's ability to avoid hazards.

Of course, theoretically in terms of the cruise control it is possible to implement, but I think I was talking more in terms of cruise control to avoid motor hard cut-out. If anybody tried this ever, and this is currently the legislation that is required, motor hard cut-out is very uncomfortable. You hit a speed of 25 kilometres per hour and then suddenly the bike is unpowered and you have to pedal suddenly yourself and then the bike slows down again and then it just powers on again. This is what it is doing, just oscillating around this 25 kilometres per hour. Of course, that legislation—I think the Pedelec 25 European standard has that—we basically copied and put it in our traffic rules. Since then power electronics controlling bicycles has improved heaps and it is so much cheaper now and you can have 25 kilometres per hour. If you want the bike to go faster it will not, it will just reduce power, but it is not going to cut the power out continuously. This adds a lot. Unfortunately, even this is not allowed now.

Mr JAMES: Again, you are relying on people to do the right thing and that seems to be the biggest problem we have. Eighty per cent of your problems come from 20 per cent of your users who are not doing the right thing.

Ms BUSH: Thank you, gentlemen, for coming in today and for your submissions. I want to preface what I am about to say with a statement, which is that I absolutely see a place for these devices. I do not use them myself, but I see a place for them. I will put this to all of you, but particularly to Lime. I am looking at media statements that show that your profit and revenue has grown exponentially. Three years ago I think it was $15 million in revenue. Last year or this year it was $686 million, so this is quite a profitable business. Then I open your submission which talks about things that the Commonwealth can do, things that the state government should be doing, things that local government should be doing and I am just not seeing where you think you should be doing

things. I am curious, probably from you all, about the percentage of revenue that you invest back into tech, R&D and education. That might be something you all need to take on notice. Then just generally, where do you see, in addition to helmet use, some other safety, education and tech initiatives that we can be looking at? The issue seems to be safety and social licence.

Mr Peters: I think that is an excellent question. I will elaborate on a few different areas where we invest. When we look at 2018, the industry was very much emerging. You had pressures in cities from congestion and you really did need to find a way to move people. A lot of companies like Lime— and I will let Jayden speak later on—invested a substantial amount of capital into that. We were not profitable for a significant amount of time. In that process we had learnings. Our operation in Brisbane in 2018 to the operation we have today is very different. It has allowed that process to iterate from helmets to geofencing to detection in app to putting in late night zones where they automatically slow the vehicle down. All these things were learned. In terms of your comment about where we invest now, safety is our No. 1 priority. It is something that we do not shy away from. Lime has designed their vehicles from the ground up—the software, vehicle and the processes. It has led to an incredibly strong safety record where we have 99.95 per cent of all trips ending without incident.

The next problem that we are tackling, which is to the investment, is parking and parking tidiness. When we came back to Brisbane we actually led our bid with a bid to make sure that we funded the parking infrastructure that you are seeing in Brisbane city today. It was the largest investment in Australia and it is something that we are doubling down on. We are not shying away from that. It is not a case where we are simply deploying vehicles and walking away. I think it is representative of the industry and the growth of it that we are seeing numbers that are successful. You want something which is financially stable. I think it is critical that you are seeing Lime today. We are going to be here for the Brisbane Olympics in 2032. We were in London, we were in Paris and we are going to be in LA. I think that is the fabric of what you want. Just like the CityCats, the bus network, all these companies, you want them financially stable. We will continue to invest over the next five years. We will no doubt have new vehicle types. I spoke in our submission in terms of different P&D rules. It is something that we are incredibly proud to do. We will not stop investing in safety and making sure that we are getting people out of cars, reducing congestion and making cities more livable.

Mr Bryant: I cannot speak to the same numbers that Lime has. They operate at a very different global scale to what we do. I can speak to the innovation in the shared mobility industry and the pressure that comes through competitive processes for that. Back in the early days when e-mobility was first introduced I gave the helmet lock example as one R&D and safety innovation to try to improve outcomes. Operators do get significant pressure from councils to always do better. There are a lot of safety and innovation requirements as part of the competitive procurement process. Another example in addition to helmet locks is third-party insurance. That did not even exist. We listened and we tried to find an insurer. We had to scour the market. There were not many insurers globally because it was such an emerging and new industry. Operators have now all adopted that. Cameras are being investigated, which is millions of dollars in R&D investment, to try to further improve outcomes. There is a very stark contrast between the heavy regulatory controls that apply to some of these contracts at a local council level compared to what is happening with private devices currently. The majority of the contracts very often operate on short-term deals. Councils are always looking to push operators to innovate further. That has not stopped, and it will not stop because of the nature of our business.

Ms BUSH: We will deal with private devices, but we have you in front of us and you know more about the shared scheme, so I want to stay on that. I think you are right; there are areas where we might agree. I see the role they play and I hope to see them in the future. As a local member who is quite progressive, I loved the sight of them when they first came into the electorate. I think the social licence is starting to wear thin. I would urge you to work with local governments around what can be done in that space in particular because, as we have just heard from the RACQ, as soon as they start to become a threat to pedestrians the whole thing is turned upside down.

Mr Peters: If I may add two comments. You are absolutely right: the social licence is the fabric of society and it is what we operate within. Trip numbers and the adoption we have seen in our global markets like Paris and London is really what we want to bring to Brisbane. I cannot emphasise more that we need to get parking right. It is simple. It is the thing that keeps me up at night. Let's solve that. In relation to helmets, we redesigned the helmet lock completely this year and next year Brisbane will see a much easier system. That is where we operate. We can add tremendous value to the network and it is something we have to prioritise. I echo your concerns in terms of that. We will take that onboard.

Mr Matsekh: I am really happy that I wound up in this group because I essentially represent the technical side. Also, despite what my respected colleagues have said, I am looking for a certain relaxation of strict regulations for private users. Shared schemes do have their own specific infrastructure capabilities, of course, for tracking all sorts of technological innovation implemented to control users' behaviour and such things; however, I think we also need to encourage people's self-sufficiency. Nothing compares to owning one's own bicycle. You both have adverse economic incentives to promote subscription models, but the most vulnerable members of our society would be better off with affordable bicycles that are properly regulated with proper legislation so they can choose a proper category of bicycle which is clearly set in stone in the legislation. I promote three categories, and above that was pretty much what the previous panel was talking about, 50 cc. That is approximately to the Pedelec 45 standard. That can be regulated like a motorcycle with a small CTP or something like that. I really would encourage the committee to consider this as an important factor and not to penalise private users. I travel to Europe and I lived in Japan for many years, and in those cultures bicycles are pretty much everywhere. Essentially, they try to promote private bike ownership and private bike use, and I would like to encourage this.

CHAIR: That is a point well made.

Mr KEMPTON: Looking at the evidence, the Queensland Trauma Clinic Network and RACQ made a very strong case for the use of full face helmets. Other submitters have said the reluctance to wear helmets has to do with personal hygiene and other issues. If we were to move to full face helmets it is going to become an even bigger issue. Is there some kind of disposable headwear you can utilise so people will actually wear these helmets?

Mr Peters: In terms of the shared schemes, when you look at that submission obviously you are getting different vehicle types and different vehicle speeds. Moving forward we would certainly look at that. We operate in a very controlled, regulated and speed limited manner which would not require a full face helmet. We do have different vehicle types. Previous submitters and witnesses did speak about whether they are seated or standing, and in our global markets we run multiple versions of those vehicle types. We have a very strong safety record. Do I think that mandating full face helmets would reduce ridership or have adverse outcomes? Probably. We would have to look at that a little bit before making a knee-jerk reaction. When we are talking about safety, all cards are on the table and we should look at everything.

Mr KEMPTON: Do you accept there is resistance to people wearing helmets? Other than the fact they may not be available, do you think there is a personal basis for people not to wear them?

Mr Peters: Our first challenge, which I spoke about before, is leading the horse to water and just getting them to wear a helmet, which is my priority.

Mr Bryant: I do not have too much to add to what Will said. The first step is trying to change and amend that culture. Mandating full face helmets is likely to result in even more people choosing not to do so. There is technology whereby you can get RFID chips to try to detect that you are wearing the helmet on your head. You need to take into account the fact that every day I see regular riders who are choosing not to use the shared helmet that is provided on the device and they are bringing their own bike helmet. That is an opportunity for the people who want to take the extra step of a full face helmet. There is nothing to stop them from using that.

CHAIR: It is a good approach.

Mr Matsekh: As an avid bicycle user, I have personally had quite a few crashes at high speeds of up to 40, 45, 50 kilometres an hour. My face is still here. Normally, a normal helmet protects. I would like to reiterate that bicyclists and cyclists are normally not a big danger to themselves, especially when they are powered reasonably or if you are talking about people who can pedal themselves on a manual bicycle or a bicycle with a power level not exceeding what is humanly possible. What is humanly possible—I can quote—is approximately 450 watts for 60 minutes. No human could ever provide that, so 500 watts is just above that. Normally humans are not really a big danger. Even when people crash, because it is a two-wheeled device people tend to fall down because they are inherently unstable. The biggest danger to people on bicycles is not themselves; it is the heavy vehicles. If you want to promote e-mobility, introducing full face helmets would be a nightmare. It would unnecessarily turn a lot of people off riding. Those who want to use them are welcome to, but for speeds up to 40 kilometres an hour—and you could leave it at 25 kilometres an hour—it would become completely redundant. Even if it might just give an extra level of protection, people should be allowed to choose whether or not they want to go with that. I can foresee that, of everybody in this room, probably nobody would want to use a full face helmet just riding to get some groceries.

Mr MELLISH: In terms of designated separated infrastructure, we have seen a little bit of it in Brisbane at Edward and Elizabeth streets. Do you see that as a key part of people taking up e-mobility options, knowing there are safe routes with proper separation? Do you think that would result in more uptake?

Mr Matsekh: Yes, absolutely. When I walked from the South Brisbane train station—as I told you, I do not drive—I just walked through that bridge and it was amazing. It almost felt like I was in Europe. I had an experience in Switzerland when I went to a conference where I rented a bike and went for a ride, and I was squeezed on the side of the road. I could not understand what was going on because everybody else was riding in the centre of the road. Then I realised there were cars slowing down behind me. Cars were left a little space at the side of the road, whereas in Australia we are like chased animals sitting in the gutter. Cars there were driving 30 kilometres an hour in the city centre. The centre was dedicated to public transport and then two centre lanes were dedicated exclusively to bicycles.

A really important aspect which is invariably overlooked is that—and this is awesome—Brisbane city centre is basically a model already. We already have that but we want to scale it up a lot. A lot of European cities have what urban planners call filtered permeability, which is essentially a concept allowing certain active modes of transport and giving them the advantage in terms of speed, convenience and priority. For example, if there were a bridge across the creek where I live, it would be two kilometres to a train station and shopping centre; however, we all have to go five kilometres around. If we had filtered permeability, bicycles and even walking would become a preferable option. Filtered permeability is a concept introduced by Steve Melia, who is an urban planner and researcher in the United Kingdom—there is an awesome book; I think it is in my backpack—about city centres complemented with filtered permeability plus a lot more connected infrastructure.

Almost every day I ride my son to school on a bike with a child seat and the way our footpaths are organised is just terrible. First of all, they do not have smooth, safe surfaces. They are made out of concrete slabs which are not normally even aligned well. There is no priority crossing, so when I am riding on the bike I have to go left if I am crossing the left turn, then I have to ride maybe seven metres to cross, then ride another seven metres and keep going. This alone, even talking about manual bikes, deters people from riding, because on a regular powered bicycle if you still have to accelerate and decelerate you do not have that much power at your disposal.

I understand it is a really hard sell in this trial and people will be angry that they have to give way to cyclists, especially with those priority crossings. If we want to get more people out of cars and ease congestion, what we have in the Brisbane CBD needs to be complemented everywhere, especially in the suburbs, with better designed pedestrian walks and separated bike lanes—occasionally we have them, but they have to all be connected—plus filtered permeability so they basically can jump across where the cars cannot go, and the cars will have to drive another five or seven kilometres whereas a bicycle can make it in a kilometre or a kilometre and a half.

CHAIR: I have a couple of questions for Neuron and Lime in particular. There is wide acceptance of the shared schemes and safety aspects that have come to light so far, but the big issue is parking. William, you said that it keeps you up at night. I am interested to hear more about your project working with the BCC around that. Speaking from a personal experience I had in Paris a long time ago, they had bikes locked up in different locations but they were quite a long way away. I am sure there is a balance between convenience and accessibility. You mentioned Paris and London, and in terms of Brisbane and the Olympics. I wonder if you could talk to us about getting thousands of people to events. I am thinking about using the State of Origin as a case study and what things we can learn from that.

Mr Peters: I will answer that and I know we are short on time. I absolutely support the infrastructure comment. Infrastructure makes it better. Also, you are getting community uptake right now. I have seen all the states in Australia change.

Going to your point around London, Paris and the Olympic cities, yes, our major events team has seen a huge uptake. In planning for that, it is critical to think about how people move at scale. Over the last three years, we have seen the adoption and normalisation of bikes and scooters. People go, 'Look, I've never taken one but I'm taking it. It's easy.' The integration that we have with Uber as well is really accelerating that.

I take the recent example in Paris. We scaled up there to about 15,000 devices over that peak period of bikes. On your docked comment, that is old technology. You have that city bike scheme here as well, which is quite failed. The advantage of micromobility schemes was that you could park anywhere. Now we are noticing, with infrastructure density, that you want a parking bay every 100

metres. One hundred metres is how far someone is going to walk. The partnership that we are doing with the Brisbane City Council is building that out. We are very keen, with the whole CBD, to be able to park your device every 100 metres.

In terms of your comment on event mode, we had the biggest day on the Gold Coast with the Gold Coast Marathon. In terms of the trip surge this weekend as well, we had a huge uptake for the Lions game. All of those events are scaling dramatically. People want to use micromobility to get there. Both operators have programs in place to make sure that we can cater for that demand. We are seeing a rapid increase on this. We have worked with Formula 1, Tennis Australia, Vivid, everything at the Gabba, Suncorp—all major events. There are so many different things that we do.

I would say building up to the Olympics in 2032, the critical bit is making sure that we have a regulatory framework that really carves out, I would say, from private to shared, which is different because we are very different. I would also go to the point before: we want everyone riding. When you have a culture of people riding, and it does not matter if they are riding our products, you have a better country, you have a better society. I have seen this firsthand. I know we are short on time but Jayden, do you want to say anything?

Mr Bryant: I echo a lot of Will's comments and I am also partially answering both the previous questions as well. That is the gold standard and that is what we really should be investing in. If we want to improve safety outcomes, I do not think there is anything better than what that infrastructure can actually do. I will give a very quick example from Melbourne, which is in a different regulatory environment. Footpath riding is illegal there. It is quite unique, besides New South Wales temporarily. You are only allowed to ride on the road or on bike lanes in Melbourne and they have a lot of good cycling infrastructure. We had a camera trial where we could actually record where people were riding. For five per cent of riding time, people were going on the footpaths. When we surveyed why, they did not feel safe on the road and they would rather illegally go up on the footpath because there were three lanes with nowhere to ride safely. That is the standard. People definitely choose that and use that infrastructure. It gets people more often away from pedestrians. It gets people away from cars, which cause very serious fatalities and incident increases. That is the best thing that we can do.

As for parking infrastructure, for years we have been advocating for designated parking infrastructure. It is absolutely the key to tackling those issues. We are fully supportive of that, as well.

CHAIR: Thank you very much. Your point was well made, Arkadiy, that everyone should be riding a bike given the cultural experience that they give. It is something that we all did growing up but nowadays a lot of people are not experiencing. Unfortunately, the time has expired for this session. Thank you for appearing today and for the information that you have shared with us. If anything else arises from this, the committee will write to you seeking that information. Thank you for your time. Have a good afternoon.

BUNING, Dr Richard, Senior Lecturer, University of Queensland Business School, Lead University of Queensland Micromobility Research Cluster

BURNS, Mrs Amanda, Senior Health, Safety and Environment Partner, Health, Safety and Environment, Queensland University of Technology

HAWORTH, Professor Narelle AM, Chair, Motor Accident Insurance Commission-Queensland University of Technology Road Safety Research Collaboration, Queensland University of Technology

SCHADE, Ms Rebecca, Senior Environment Partner, Health, Safety and Environment, Queensland University of Technology

WATTS, Associate Professor, Director, Energy Storage Research Group and Project Lead, National Battery Testing Centre, Queensland University of Technology

CHAIR: I welcome representatives from the Queensland University of Technology and the University of Queensland. Thank you for your patience while we were questioning the last witnesses. Professor Haworth and Dr Buning, would you like to make opening statements?

Prof. Haworth: We thank the committee for the opportunity to appear at this public hearing in support of our joint institutional submission. The four of us come from different parts of QUT and bring different perspectives on the topic. We appear today to provide insights through three complimentary lenses: the state's pre-eminent road and traffic safety research centre, the MAIC-QUT Road Safety Research Collaboration—formally known as CARRS-Q, the Centre for Accident and Research Road Safety Queensland—which I am representing; Associate Professor Watts leads one of the nation's leading battery safety research capabilities, the QUT Advanced Battery Facility and the Queensland Energy Storage Technology Hub; and my colleagues from the health, safety and environment part of the university are the custodians of the campus and the way in which transport happens in that area. We would be happy to take detailed questions on any of those aspects.

I will not read through the whole list of things but I note, as we said in our written submission, we have actually conducted an evaluation of the Queensland personal mobility devices reforms for TMR. Unfortunately, under the terms of that agreement, I am not allowed to talk about that report today, but I understand they have committed to sharing the findings with the committee when they become available. I would respectfully refer the committee to TMR for further information about that.

Dr Buning: Thank you so much for having me. It is great to be here. I am a senior lecturer in the University of Queensland Business School. At UQ I lead a group of diverse scholars from transport engineering to urban planning and geography, all studying active transport and the urban micromobility cluster. I am also a deputy chair of Bicycle Queensland. I have been researching cycling for nearly 15 years and more recently the emergence of e-scooters and e-bikes. My focus is really on how communities can embrace active transport to create active, connected, vibrant communities for both tourists and residents. I would argue that since the invention of the derailleur and gears on bikes, e-scooters and e-bikes have changed the way people use and who is using active transport in our communities. It has meant a group of people in the population who have never considered using active transport before and have done so for reasons they had never considered before have entered this market.

Today I am bringing you a big comprehensive piece of research that we have recently conducted for Transport and Main Roads. I put this in my submission. Basically, it is on whether PMD users comply with the road rules. We conducted an observational study over the course of several years to look at whether e-scooter users were complying with road rules, especially around the 2022 road rules changes. We looked at eight sites across the Brisbane CBD, urban suburbs and outer suburbs over the course of two years. My full report is in the submission but I have some key points here.

The vast majority of e-scooter users comply with helmet, speed and location-based rules—the vast majority. We also saw there was little to no change in behaviour related to that road rules changes. Simply, the new road rules did not invoke behaviour change in itself. The great news is that we found separate infrastructure directly produced road rules compliance. When riders had a choice between the footpath and a bike lane or a cycle track, fewer riders chose the footpath and were more likely to comply with speed limits and helmet use so it directly produced road rules compliance.

PMD helmet use was actually quite high and it has improved over time. From QUT's research in 2019, they saw overall helmet use for e-scooter users was 68 per cent; we found it to be 83 per cent in 2023. We also found that users made risk compensation decisions in that those wearing helmets ride faster and those wearing full face helmets ride the fastest.

We found that footpath speed compliance is a bit of an issue, with only about 52 per cent of people complying with the 12-kilometre speed limit. Only 15 per cent of users go over 20 kilometres an hour on the footpath. Speed compliance on roads is quite high at about 83 per cent overall.

I have four recommendations for you. The first is similar to many people who have spoken before me, which is to invest in and fund separated cycling infrastructure above all. Our study clearly shows that if you do this then it would directly produce road rules compliance and make a safer place for everyone.

Secondly, we need resident and tourist education on the road rules and associated penalties that matches the convenient and easy user experience of e-mobility. We need to educate and enforce the road rules that we have and we need to do it now. I do not think we can wait until after March when this committee ends. The lowest hanging fruit is around the education mandates at all points of sales for shared, personal and private devices. New South Wales is already ahead on this. They are already releasing mandated pamphlets at retail locations. We can also push that providers do this more specifically to local road rules and other associated penalties.

Third, we need to work together with other states. Every other state across the country is doing this. I feel like I am on a roadshow at the moment. Our issues here are not unique. I would say that we are wasting resources going through it independently. New South Wales has basically done the opposite to us. They have been late in legalisation. They have just rolled out a big e-mobility toolkit that has a lot of great things that we probably want to implement ourselves.

Further, I would say that the Brisbane City Council is an absolute global or national leader in this space—an Australian leader. They have designed parking stations. We have done a lot of work in that and the City Council has done a lot of work in that, but a lot of other councils are doing this work independently. I think collectively we can make a push to Canberra to stop illegal and unsafe devices at our borders, before they even get here.

Lastly, please continue to support and fund future research into e-mobility, especially in regional communities. We have basically done no research in regional communities. We as an academic field, government and countries still do not fully understand the role, impact and factors that lead to the safe use and benefits of e-mobility. I would say public perception in e-mobility behaviours is often based on anecdotal evidence, panic of the new and unknown, overly negative media reporting and not independent-based research. For example, right now, with the Brisbane City Council, I am starting a study into using e-scooters to encourage first-mile and last-mile transport with reduced fares, which can completely change their use profile.

To close, I would ask you to mainly think about the diversity of users and the reasons people use these devices, from the daily commuter and parents taking their kids to school to international tourists having the greatest time of their lives exploring Brisbane and everyone in between. It is not just the few who are using these devices illegally and hanging about and those types of things. We are using them for all kinds of great purposes and most people are complying with the road rules.

I would ask you to consider how the general public really knows how to ride, where they can ride and what kind of devices are actually legal or illegal. We can use a combination of not just policy but also technology and infrastructure to combat these challenges to make sure that we can do this. I am happy to take questions. I have done a lot of research in this space. I have mainly brought this recent piece with TMR but I have also done other projects for council and other groups and I helped author the submission from Bicycle Queensland and the Queensland Tourism Industry Council so I can take questions on a wider topic.

Ms BUSH: Richard, you mentioned a couple of things that you think the government or collective governments could start doing now. Can you identify those for me and expand on anything that you think we would have the capability and the ability to roll out before the end of this inquiry?

Dr Buning: Absolutely. The easiest thing is enforcing the rules that we have. For me, with private devices that starts with the retailers. I think we should have mandated education pamphlets at retailers for every single person who buys one of these devices. The places that you can buy the devices is all over the place. You can buy one at Bunnings, online, cell phone stores. There are all kinds of different places where you can buy these devices. It is kind of the wild west in terms of where they are being sold. There is no indication whatsoever on what the road rules are or whether that

device is illegal. If you go to JB Hi-Fi, you will just see a generic picture or something that says, 'Warning, obey your local road rules', but no indication of what they are, where you can ride and those types of things. That is for the retailers.

For the shared devices, it is having them more specifically educate the users on what the road rules are. They can do better. They talked a little about enforcing helmet wearing by having to take a picture. Often times, I find the apps gently encourage people to wear a helmet. They do not say, 'If you're not wearing a helmet, here's the penalty' or 'If you're doubling up, here's the penalty' and so on. They could test these things. As I put in my submission, some of the device apps also do this very gently with a kind of graphic saying, 'Wear a helmet and have a nice day' or something like that. It could enforce them. It could make people take a quiz or a test before they are allowed to ride and so on. Another issue that compounds this is that most of the devices are used on time. People want to skip through the rules as quickly as they possibly can to reduce the cost of the use so they are not necessarily taking the time to take in the rules.

CHAIR: Professor, did you or your team have anything to add to that?

Prof. Haworth: I would certainly agree with the need for education about the rules. I think one of the big challenges we have though is that the rules for the use of e-scooters and other types of e-mobility change at the borders. Most people are finding out about things online, not on pieces of paper. If you go online and ask what the rules are, you may get rules from somewhere else in Australia. One of the things I would like to see, particularly in areas like the Gold Coast, is some signs that say that the rules are different here than in New South Wales and so on. I think we need to be aware of that.

My focus is on safety. With regard to the helmets and helmet locks, they are terribly ineffective. We did observations and counted the number of people wearing helmets and the number of helmets on the handlebars before and after the introduction, and there was no increase in helmet wearing. There was certainly an increase in helmet availability and there were those 30 per cent of e-scooters being ridden with the helmets hanging from the handlebars. The helmets are there but they are not being worn; people are making that decision. It would also be good to do some educational piece to find out information about whether there is a hygiene issue. I suspect, with the amount of UV we have in Queensland, we do not have a hygiene issue. Anything that survives the Queensland sun—well, not much is going to survive the Queensland sun.

CHAIR: That is a good point.

Mr JAMES: Dr Buning, you mentioned briefly work with Canberra to stop these devices before they get here. Can you elaborate on that?

Dr Buning: I see that primarily around illegal or private devices, especially illegal e-bikes. We can stop them from coming here. I know you had the fire department here earlier. We can have standards on this. I know that New South Wales has tried to roll out standards, and I saw on the news today that they have had to back it up on the battery standards, related to what they are. Consumers are buying illegal e-bikes not knowing that they are illegal. It is especially easy to SAW the devices; you just push a button on it to make it illegal mode. We can try to stop that at the borders I think, especially around the battery safety issues and the speed issues related to the illegal devices.

One good thing that has come in in the Brisbane City Council is that we have continued to invest in it, and the shared providers talked about this. When you keep investing in it, the product does get better. Everything does get a bit safer and you do have changes in technology.

Mr MELLISH: I thank UQ and QUT for really good submissions and for being involved in e-mobility through the various different hats you all wear. A lot of the submitters and a lot of people today have talked about separated infrastructure and the benefit of that to safety and increasing the uptake of e-mobility as well. Obviously, we are here in Brisbane and we have talked about the Brisbane CBD a bit, but what is the next cab off the rank in that? Is it going out into the suburbs in Brisbane? Are we talking about the Gold Coast, Sunshine Coast and other regional centres?

Prof. Haworth: We actually did research monitoring where e-scooters were being ridden in Queensland at the same locations before and after the new infrastructure was introduced. One of the really interesting things was that, yes, the numbers on the footpath went down and they moved to the protected bike lane, so even at the same location it does shift people off the footpath. If you do not want people riding on the footpath, give them somewhere safe to ride. That is the fundamental.

I think our major provincial centres are probably very good candidates for improving this infrastructure. We have to remember that it is not going to change things just for e-mobility; it is actually going to change things for pedestrians, because they will not have to cope with other types

of devices on the footpath, and it will also change it for bicycles. We also have to start thinking about whether the way we currently build our bike lanes is really safe infrastructure. There is nothing magic about the white line; it does not protect you from being hit by a car. Another thing we need to do is look at some of our existing bicycle infrastructure and whether we could replace that white line with something that protects people a bit better from cars coming in.

Dr Buning: We have the statistics from this study, in terms of when you have a bike lane and then more so a cycle track and moving people off the footpath. In the CBD, when the footpath is wide footpath riding is high—around 80 per cent—if that is just a general traffic lane. However, when the cycle track is there—like in the CityLink cycleway—it is only about seven per cent of users who are actually on the footpath.

CHAIR: That makes sense.

Mr KEMPTON: The Queensland Trauma Clinical Network submission was pretty compelling in the escalation on the number of injuries, deaths and trauma from e-devices. Whilst there is a lot of upbeat about them being used, we face the issue now of trying to find our way through some kind of regulation. It occurs to me that we are not going to be able to just simply regulate our way out of this. I understand from your submission there is a whole cultural shift and education component that gets people to accept compliance as part of their use, rather than something that is a pain in the neck. Would you agree with that?

Dr Buning: Absolutely. I cannot really speak to injury rates specifically; that is not my area of research. It is hard to know whether the increase in injuries is just related to an increase in use. I know the shared devices themselves objectively have got much safer. If you were here in 2018 when Lime devices got out, they were quite dangerous. They were flinging people off randomly down the hills, if you remember that. The devices themselves—larger tyres, air in the tyres, helmet use, all of those things—have got much safer. I think it is hard to know if injury rates are related to them becoming more unsafe or just heightened use really.

Prof. Haworth: I would like to continue on that point. We actually do not know what the injury rates are for e-scooters and PMDs across the board in Queensland. We have a good idea of what the injury rates are for shared e-scooters from the information the companies collect, but when it comes to private users we have no idea. We know the number of injuries; we do not know how many injuries per million kilometres, per million trips, or whatever. Even with our hospital systems, it is not recorded whether the person was injured on a private or a shared e-scooter. In our police reporting system, that is not reported. One of the things we really need if we are going to improve the safety of e-mobility in Queensland is better data—that is, better data about what goes wrong but also better data about how many trips are being made and so on. Until we have that, we will not be able to tell whether any changes that we make have actually improved safety or not.

Mr KEMPTON: That was only a precursor to my question, unfortunately. There is a problem—except the scale of it, if you will—but we cannot just regulate and legislate our way through this. The point I understand you were making was that there needs to be a cultural shift around compliance and education. That is what I was really looking for your comment on.

Dr Buning: I can speak to that more directly, if you would like. From our study, you are exactly right. New policy and new road rules will not change behaviour, based on our study. It had really no change whatsoever in that road rules change that happened in 2022 in terms of the behaviour that people were using. I do not know if it was around the education. I just think maybe the way that we are educating does not really match the user experience. People use these devices because they are easy and convenient to use. They are probably easier and more convenient to use compared to any other way to get around a city, other than walking. In our Queensland environment, we look at even walking a short distance on a hot day. I think our education really needs to match that same user experience.

Prof. Watts: My research is more around the systems and the safety of the systems and the cells as they come together to make a battery module or pack. In those cases, it is absolutely about education and improving consumer behaviour. For instance, if somebody wants to buy a scooter right now, they can jump online and buy one right now, and consumer behaviour shows they will go for the cheapest one they can buy and that incentivises them to buy the cheap and nasty products from overseas. As has been said, there is no import regulation currently. There are standards in place, but those standards are all based on point-in-time certification, so there is no ongoing product control or surveillance of the product manufacturing quality that is happening. UL does have ongoing product surveillance services but not all scooter manufacturers will adopt and comply with those.

There really is an education piece that we need to lean into to educate the consumer around the hazards of e-mobility devices. When I say that, I am talking about death occurring from fire or chemical inhalation from the battery pack itself going into thermal runaway. That is something we are absolutely struggling with; the globe is struggling with that and Australia is absolutely struggling with that. Hopefully, the Queensland Fire Department gave you some statistics around deaths just in Queensland alone from e-mobility devices catching fire. There is really a lot that we need to do to fix that problem. It is absolutely consumer behaviour but it is also looking at domestic testing capability and looking to what the world is doing.

For instance, New York has been struggling with fires in e-mobility devices in apartments and things because people are charging cheap and nasty scooters inside their bedrooms. A lot of it is trying to educate and get people not to charge their scooters next to their bed but also looking, as I said, at having some kind of domestic testing capability. I am talking to private e-mobility use now and looking at an approved product list or something like that where we have done the testing. Even if they have that certification on them, it does not mean the suppliers that are supplying them in are not thrifting out components to make the product cheaper. It is all point-in-time certification at the moment.

It is something that the Fire Department is struggling with. A lot of our research is focused on actually testing different scooter brands to standards to see if they are complying, to see if the components that are in the scooters as they are imported are what the certification says they are. That is a really critical part because you can quite easily switch the cells out for different cells inside the scooter and those cells that are switched by the supplier might not always be up to the product quality they need to be to be safe. We need some domestic testing and product surveillance to ensure that more people are not dying from chemical inhalation and death from fire.

Mr KING: My question is along those lines as well about the batteries and the make-up of the batteries. I did ask the Fire Department before as well about the lithium ion versus lithium iron phosphate and sodium ion. Are they getting safer, and is there a light at the end of the tunnel where these will be safe for charging?

Prof. Watts: The nature of a battery or energy storage device is that there is a lot of energy stored in a small volume. There is always going to be some risk associated with anything that stores a lot of energy in a small volume. Sodium ion that you have highlighted is a new and emerging commercially viable technology that does not have as much capacity as lithium ion but it is still fundamentally the same type of technology. It still has a flammable electrolyte inside it. They are purportedly harder to put into thermal runaway but, if abused, they can absolutely catch fire. The electrolyte is flammable. When the material is decomposed, they release oxygen which fuels the fire, which is why thermal runaway is such a difficult thing to deal with. The chemistry of the electrolyte is exactly the same as a lithium battery. The decomposition products that are quite toxic that come from the gas cloud from a thermal runaway event of a lithium battery and a sodium ion battery are very similar as well. This is ongoing research in the new and emerging chemistries for sodium ion; there might actually be more dangerous decomposition products that come from that. The work has not been done to quantify what the decomposition products are—well, it is not readily available anyway in the public domain.

Even though some of these battery technologies might be more safe in that they are harder to put into thermal runaway, it does not necessarily mean that they do not still have their hazards associated with them because there is a lot of energy in a small volume. There are different hazards associated with different chemistries too. LFP that you have highlighted is harder for it to go into thermal runaway, but when it does it will produce a huge amount of toxic gas which does not combust because it does not get hot enough quick enough and that results in a toxic gas cloud. There have been deaths in Australia this year from chemical inhalation from e-mobility devices going into thermal runaway and people dying in their sleep from chemical inhalations.

Whereas the cobalt high-density batteries will ignite the gas almost immediately which actually burns off that chemical hazard. But LFP, because it drops a gas cloud, can create explosions in a combined volume. There are different hazards associated with the different chemistries but they all have their own hazard profile that needs to be addressed in the infrastructure and in the systems design as well.

Mr KING: So there is no light at the end of the tunnel yet.

Prof. Watts: No, there is because essentially lithium ion can be made incredibly safe if the right engineering is put in place. EVs are a really good example of that. We have only had about nine EV fires in Australia and all of those have been caused by an external influence, whether it has been mechanical defamation or external fire or flood damage. They do not just catch fire by themselves when they are on charge.

On the other hand micromobility devices can and do catch fire because the engineering and the quality of the products is not regulated and it is not always present in the product, especially when you are importing products from overseas that do not have the appropriate systems engineering in them to make them safe. If the cells are of a high quality and if the system and the battery management system is of a high quality, these things are incredibly safe, but they just do not all have that degree of engineering built into them. It is driven by cost.

Mr KING: Earlier they talked about repurposing—and it is a little bit off the topic of e-scooters. Say you repurpose a vehicle battery to a house battery, as it gets older and older does it degrade in safety or only in its chargeability?

Prof. Watts: They can degrade in safety over time. As batteries approach end of life, they hit what is called the knee where they really drop off in capacity but that can also introduce an enhanced safety risk due to lithium, metal plating and other defamation things that happen inside the cell over time. Repurposing EV packs especially, DIY-type things in people's houses, is what is killing people at the moment here and overseas and it is absolutely a massive problem—people DIY, pulling apart EVs, especially after an EV has been involved in a crash. There is no way at the moment to do a really in-depth safety assessment on a whole battery pack that has been involved in a crash. We are working at the moment with Insurance Australia Group through the Cooperative Research Centre project with iMOVE CRC to do a state of play assessment of how people are assessing state of safety for EVs and e-mobility devices and looking to overseas as to how other countries are trying to approach this problem. Similar to before, I cannot provide the details of the outputs of that yet, but the group and the CRC are happy to provide the information around that when the project is heading towards completion.

CHAIR: Thanks again for being here today. I am making a disclosure that I was a forensic crash investigator, so I am very well aware of the work that CARRS-Q did. Thank you for all of that work and obviously the work and research of the university that changes in our policy have been based on. My question is to QUT, particularly as we have some health, safety and environment representatives here. In your submission you talk about being a large campus and that you will have observed some of the cultural challenges that we have been talking about today because it is obviously something that each of your campuses will be dealing with. Could you share with the committee some of the things that you have done on your campuses that actually have improved the wearing of helmets and/or compliance with the road rules?

Mrs Burns: Our research and the work that Rebecca and I have done for QUT as health, safety and environment practitioners was really around storage and charging of personal mobility devices. We have previously had looks at pedestrian safety. We do have a 'Walk Your Wheels' campaign, which we find pretty effective, and we have our whole team of security personnel who are out and about providing education and awareness for all our staff and students and members of the public who might transfer across our campuses and also enforce that requirement.

I probably could not comment so much on education and awareness for helmet wearing and general road safety behaviours. Certainly we have identified a need to provide more education and awareness around battery safety and storage and charging practices because we are finding a much higher demand now for the requirement to store their devices when they come on to campuses. We are finding them storing them in libraries and a whole lot of common use areas, so we have had to quickly respond to that and identify where our safer or safest areas are and identify designated storage areas. Certainly we have found that probably due to a lack of general awareness of battery safety and safe charging practices we are having to try to fill that gap, recognising that we have a big international cohort as well and we know that a lot of these devices are massively varied in terms of their manufacturing quality.

Prof. Watts: At QUT we are working with the department of state development at the moment on the Queensland Energy Storage Technology Hub project. It is a four-year project funded by the state government where we are doing a lot of work with state and federal government regulators to look at how we can better assess and monitor the safety and quality of different types of batteries— not just e-mobility but also residential batteries and large-scale grid batteries—and also supporting local minerals refiners to value-add products to build the supply chain towards battery manufacturing

in Australia. QUT is very active in that space and have the nation-leading capability at the moment in domestic testing to support the work that needs to be done to validate the product quality of these types of devices. The demand for our services is overwhelming at the moment nationally and from Defence and others. We need help to scale to support the demand for this to ensure that we are deploying safe products.

Dr Buning: At the University of Queensland we have a similar approach to QUT. Since we have such pedestrian focused areas we do not want people to ride bikes or scooters in the middle of campus if they get there on them. We have not really done much necessarily in terms of educating our students on safe riding and wearing helmets. We started a research project that was co-funded by the Queensland government called ODIN PASS and it was a mobility as a service trial, which basically allowed students and staff at UQ to just pay one fee and they could have access to public transport, shared devices, Uber and everything depending on the trip hours. It was so massively popular in encouraging students to get to campus—and staff as well—that it spun off into its own business.

Mr MELLISH: More broadly speaking—and this is probably for the benefit of the committee—what gaps do you see in the data and which gaps do you see are most urgent to fill to improve policymaking around e-mobility?

Prof. Haworth: I think what is most needed is probably a good annual measurement of the amount of e-scooter riding—not everywhere but maybe at a large number of points within Queensland—so that we can know how much riding is actually happening. Yes, there are needs to improve the crash data and there are needs to improve the hospital injury data. However, without the good amount of riding data, we cannot even use well and interpret well the current data we have about the negative outcomes. That is what I think is important. It is probably something which is not top of mind for anybody in the public and it is probably not something that people would think of doing, but I think that is what is holding us back in many areas: our inability to draw strong conclusions or to know whether e-mobility is getting safer or getting less safe. We cannot do it because we just do not know how much of the activity is actually happening.

Dr Buning: I would completely second that. We do not have any kind of data on the actual scale of ownership or use. Obviously for the public devices we can get data quite easily but for private devices we do not have it. Second to that is regional communities. Essentially all of this work that has been done by both of our universities has been done in Brisbane or other similar large cities, not in cities like in Far North Queensland where public transport may not even exist at all. I think in those cities and those communities e-mobility has a completely different value proposition. It is not replacing public transport; it is replacing cars or it is replacing the trip that never would have been taken before because that person could not get to work. I think we need to really research more in the regional communities to really understand—and we are fairly unique in Australia in that way in that we have a lot of these regional communities that are under separate public transport—how e-mobility can fit into those communities and help them move around.

Prof. Watts: To add to that, there are definitely gaps in the ability to monitor and test the quality of the scooters that are being imported, but not all e-mobility devices are being imported. There are international standards and standards that Australia has adopted for e-mobility devices. As I said, these products can have that stamp and that certification done, but it is very difficult to check the ongoing quality of the products and whether or not different components have been changed and switched. Some kind of domestic surveillance and testing programs is critical to monitoring the quality and safety of the devices that we are importing. In terms of trying to stop it at the ports, I am not sure we have the resources or the capability to open every single crate, so we need to move more to towards some domestic checks and balances against the product quality that we are deploying here.

CHAIR: I have a couple of questions. Firstly, Richard, you said Brisbane City Council is a lead and that you have been travelling around the nation doing these things. What have you learnt from your travels and what are the things that the committee needs to know from you?

Dr Buning: That is a great question. Brisbane City Council have been an absolute innovator in Australia in this way. We were first to market to have shared devices, we have been progressive in our rules and changing them about speeds, allowing footpath riding and so on. Lord Mayor Adrian Schrinner has really believed in e-mobility and shared devices and so is investing more in infrastructure, parking facilities and so on that a lot of other communities have been scared of. New South Wales has basically done this in the opposite direction where they just banned them. Now they are trying to roll out all this policy and release it before it actually becomes legal. I saw a presentation

by Transport for New South Wales a couple of weeks ago and they said around 500,000 private e-scooters were owned in New South Wales where it is illegal to ride a private e-scooter on public land. That is another piece to that.

We were in all kinds of other places. Western Australia is going through this same process right now. They did this in a very reactive way to a really awful incident where a fatality occurred relating to a tourist riding a scooter. It is the same thing with South Australia where they legalised e-scooters just a couple of weeks ago. We are all kind of doing this quite separately and independently and all battling and dealing with the same exact issues. I think even if it is just designing what the parking space looks like, which Brisbane City Council would have talked about from their investment from Lime, we have a bunch of these and we are building more of these and we are looking at beacon technology to enforce parking in them and camera technology and all these types of things.

In terms of other councils, I am also on a group for Redland City Council. They are wondering what they should do for parking and what they should do for e-scooter parking even if they have it. They do not know; they are starting from scratch. I really think if we could collaboratively work together, we could do this a lot more efficiently and probably save a lot of resources and a lot of time from our MPs as well.

CHAIR: Just following on from that parking issue, some of the shared devices people from Lime and Neuron Mobility spoke earlier about parking being an issue. Is there something that you have learned in other locations about parking that could be applied to Redlands and other locations, because the only real issue about these shared devices seems to be the issue of parking?

Prof. Haworth: I usually promise myself I will never talk about parking. To perhaps let you know, in the data—I probably should not be saying this—from the hospitals and the police there are not that many pedestrians who were injured on the footpath with the e-mobility. The other issue that we need to think about with the parking is that it is not just the pedestrians who are using the footpath; it is bicycles as well, so that is a problem for all devices. Parking is something that is largely a problem in the really built-up areas where people are wanting to come to and so that is where e-scooters are all ending up. Of course, there is another end to that trip. That other end of the trip is somewhere where there are not so many e-scooters; there is not likely to be specific parking facilities. That is potentially where you are going to get more problems rather than in those areas where it is feasible to actually provide parking facilities.

Dr Buning: To add to that just generally, parking was bad but it has become better with investment in building spaces. The GPS location of the devices has improved and the device knowing where it is so it can be geofenced. It is kind of a trade-off. On the Sunshine Coast there was a trial and here in Brisbane. There are no parking locations, but you can basically park them in most places. On the Sunshine Coast their trial required the devices to be parked in only specific parking areas and bays. They tried to remove the parking everywhere issue, but on the other side of it it makes the devices less popular because, as Will from Lime talked about, if you are having to walk far to park a device then you will get no compliance. One of the reasons CityCycle failed is you would ride the bike to the parking hub and then all the stations would be full and you would ride the bike all the way back and maybe that one would be full. By the time you were able to park it you would have to walk a kilometre or something. Parking is complex. There is investment in combination with share providers' technology.

With private devices, locking them is difficult. A big barrier to the private devices is people having them stolen. Tonnes of private devices are being stolen. It is difficult to park some of them up. A lot of businesses or workplaces are not allowing them to be stored inside because they are worried about battery fires, so where do you park them? You try to park them on the street and then they might be stolen. Parking is not just an issue with the shared devices, it is also an issue with private devices.

CHAIR: Thank you very much. I think we could have another half an hour and continue to ask questions of you. The committee is looking to do a very thorough job so if we have any other questions for you we will certainly write to you. Thank you for your expertise. There are no questions on notice. Thank you for appearing before the committee today and answering our questions.

CAMPBELL, Mrs Anna, Executive Officer, Queensland Walks

DEMACK, Mr Andrew, Director of Advocacy, Bicycle Queensland

HEATH, Ms Liana, Interim Chief Executive Officer, Bicycle Queensland

NOLAN, Hon. Rachel, Chair, Bicycle Queensland

VANN, Mr Gregory, President, Queensland Walks

CHAIR: Good afternoon. Would each of your groups like to make an opening statement before we ask questions?

Ms Nolan: I am Rachel Nolan, the chair of Bicycle Queensland. With me is Liana Heath, our interim CEO, and Andrew Demack, our director of advocacy. I also want to acknowledge in the gallery Rob Van Manen, our immediate past president at Bicycle Queensland. Bicycle Queensland is a peak body representing people who ride bikes and, increasingly, scooters for recreation and for transport. BQ was formed in 1978. We have 12,000 members, which I note is more than your average political party in Queensland. BQ is about making active transport, not just cars, a serious legitimate part of the transport system. We know that if our transport system was genuinely set up for active transport, particularly for short trips, our community across the board would be healthier and people would be happier, cities would be greener and transport would be virtually free. This is increasingly understood in many of the great cities of the world. I noted that some of the scooter people talked, for instance, about Paris and the Olympic Games. We are still working on that idea here.

At its heart, BQ does three things: we lobby for that fundamental change in transport policy; we run great events that get people riding; and—I think this may be of interest to the committee—we are the only Queensland-based provider of personal accident and public liability insurance for bike and scooter riders. We can talk a little about accident history and, indeed, in terms of scooters, quite a limited accident history in terms of our claims. We very much welcome this inquiry. Indeed, we think we contributed to its calling by releasing earlier this year a position statement on high-powered e-bikes which I seek leave to table.

CHAIR: Leave is granted.

Ms Nolan: Still, while we welcome the inquiry, we acknowledge the pressure on the committee and the imperative for you to get it right. The committee has to find a way to regulate and educate for safety—and we acknowledge the seriousness of the safety issues—without discouraging e-mobility take-up and pushing people back into cars. For the remainder of our statement I will pass to Liana Heath, if I can.

Ms Heath: Thank you, Rachel. Building on Bicycle Queensland's detailed submission provided to the committee, today we are calling on the following three actions. The first is to make active and e-mobility transport a serious, mainstream and properly funded part of the transport network. A better transport network is the best way to fix the contact points between pedestrians, bikes, scooters and cars as per similar statements made earlier today by presenters from RACQ, Lime, Neuron, Foucault and QUT. TMR estimate that every $1 spent on active transport returns $5 in health and other benefits. However, active transport is less than one per cent of total transport funding. We need to see change in this space. I seek leave to table the Queensland Cycle Strategy where this return on investment is referenced.

CHAIR: That is a Queensland government document. You do not need to table it.

Ms Heath: The second is we have provided a detailed submission on our position regarding illegal e-bikes. We call for import or port-of-sale restrictions, together with existing e-bikes being speed limited. The third is we would like to see the promotion of safe riding through a professional public education campaign. We note all that has been said about safety, including the calls for full face helmets for scooters, but we also note many accidents that we see involve people who are not following the existing laws. Right now the laws for scooter use are not widely understood. There is no product labelling and limited public education. We urge a phased hierarchy of interventions, that being public education and improvement and enforcement of existing law before we move to new crackdowns and measures. We are happy to take questions and thank you for your time.

CHAIR: Greg, would you like to go next?

Mr Vann: We welcome the opportunity to be here to address the committee and to make our submission, which was quite detailed. We do not intend to walk through all of that, but I will note that we did attach to our submission our policy on e-mobility so you have that before you. A little bit about us: Queensland Walks is a 13-year-old peak advocacy body for walking. We work closely with community, government, state departments and local government to improve the conditions and profile of walking. We also convene a thing called the Queensland Walking Alliance, which brings together 30 organisations, including Bicycle Queensland, with interest in walking. That committee overall represents about two million Queenslanders. Through that committee we release various calls to action about how to make walking better and safer. We have been closely involved with the Queensland government's walking strategy, the Action Plan for Walking, and the Road Safety Strategy. We commend the government for having this inquiry. While we recognise e-mobility as another useful piece in the urban mobility jigsaw, we also know that our members would like to feel safe and therefore that there needs to be improvements to the integration of e-mobility into our communities.

I just want to talk for a minute about why walking is important. It is the overlooked piece of the jigsaw because we all do it. When we say 'walking' we mean people either out for a stroll, for a run, using a mobility device, not an 'e' one, or with a white cane, a seeing eye dog or pushing a pram. Whatever it is, they are all walking. We all walk. There is substantial evidence to show that walking improves the health of communities. It is actually good for the economy. It is good for the tourism economy. What do tourists do when they arrive in place? They go out and have a walk. It makes our communities more livable and safer. There is a compelling reason for making sure that walking is a foundation to our mobility in our cities and communities. Every journey starts or finishes with a walk. Even if you are driving a car, you walk to your car and you walk from your car. It is fundamental to everything we do, so safety for people walking is everyone's business.

In terms of e-mobility, we understand the potential value of e-mobility and so we think that if you are getting e-mobility right you can get it right for walking as well. These things are not mutually exclusive, but there are pinch points, if you like. Our submission highlights three key areas. The first one is that footpaths are for walking. I say they are called footpaths for a reason. It has 'foot' in there. They are fundamentally about walking. One of the issues, of course, is the use of other devices on footpaths is making it less safe or less comfortable for people using the footpaths. That should be their primary purpose.

Infrastructure is the second one. Picking up on Bicycle Queensland's point, like bicycles more generally, the key to successful integration of e-mobility, in our view, to make their best contribution to communities, is that it needs its own dedicated pathway rather than crowding out footpaths. Our third point is around regulation, education, enforcement and monitoring. Successful integration requires clear rules for where you can ride, how fast they can go, the cultural and educational change programs that have been discussed briefly here and in the previous session, effective enforcement of those rules and, importantly, transparent data collection so that we actually know whether or not it is working and whether things are improving. I note a lot of discussion in the previous session which was on topic. I will now pass over to our executive officer, Anna, to dive a little bit deeper into a few points.

Mrs Campbell: Queensland Walks has been advocating for the safety of people walking for 13 years. We have been involved in Transport and Main Roads' e-mobility safety and parking reference group alongside Bicycle Queensland since its inception in 2021. Queensland Walks is a Cycling and Walking Australia and New Zealand—CWANZ—member, working with state-based walking organisations, and we are a member of the International Federation of Pedestrians.

I want to acknowledge our collaborative advocacy agencies who represent the needs of people who are older and who have disability, those who are more impacted by new vehicle technology use and poor parking than most people. These advocacy organisations include Queenslanders with Disability Network, Vision Australia, Blind Citizens Australia, Guide Dogs Queensland and Council on the Ageing Queensland and, of course, Bicycle Queensland as well. Queensland Walks specialises in understanding the view from the perspective of the pedestrian, especially those who are more impacted by safety. We have done this through community and organisational engagement, through research, through surveys and citizen science. To our knowledge, our 2021 online walking and e-mobility survey has been the only external research conducted by an organisation in Queensland focusing on people walking and the impact of technology. We encourage more investment in this type of research and engagement, particularly through our organisations.

I would like to summarise other key points in our submission. The first one is our monitoring recommendations would include an advanced TMR crash and hospitalisation reporting dashboard. To some of the points of the previous panel, we just do not have enough data available. We encourage the Queensland government to be the national leaders in road safety reporting via a comprehensive, publicly available dashboard. I can talk in more detail on that later.

We recommend better enforcement of the existing road rules and clearer incident reporting by the Queensland Police Service, asset owners and government. We recommend better policing where there is high pedestrian movement or locations of concern. We recommend parking off footpaths and a better system for reporting, removing and fining asset owners and hirers for unsafe and cluttered footpath parking. We have the Disability Discrimination Act for a reason. Equally, compliance and enforcement is essential, especially at the right locations, and responding to feedback from advocacy organisations is critical to the success of e-mobility.

Third, the easiest way to reduce crashes and vulnerability will be to reduce urban speed on road environments. We recommend the findings and actions from the Queensland Road Safety Strategy, with a focus on movement and place, safer roads and more action to significantly reduce road trauma for everyone. I refer to the Queensland Walking Alliance's *Safe streets for walking now*. I would like to present that to the chair and particularly note the discussion summary.

Fourth, we must improve the way the Queensland Police Service and media report crashes fairly and accurately. We recommend that the appropriate reporting of crashes, not accidents, is clear and defined by the Queensland Police Service and media. We will leave this to the RACQ and Bicycle Queensland to advocate. However, we know language and wording also impacts pedestrians.

Our fifth point is that the federal, state and local governments need to significantly increase funding for active transport infrastructure projects and programs. The popularity of e-mobility and new and emerging technology provide a wonderful opportunity to increase active transport modes and shift our record of road crashes through suitable investment in separated and safe infrastructure that benefits walkers, riders and other road users. Proper infrastructure significantly reduces crashes for all modes and we recommend investing in physically separated infrastructure, raised priority crossings and safer streets designed for active travel. We think the successful model is for all levels of government to contribute to funding and we support the funding model that at least 20 per cent of transport budgets be allocated to active transport and e-mobility.

Finally, we need to continue to fund and back walking and riding as a desirable transport mode, rather than a vulnerable transport mode. It does not matter if you are a local or a visitor to Queensland, everyone has the right to feel safe and comfortable walking on footpaths and on shared paths in Queensland. Walking should remain the first priority. The separation of speed differentials is key.

To summarise, e-mobility plays an important role in Queensland. However, we have been so focused on new technologies that we have been missing the tried, true and core transport modes of walking and riding. Walking is a mode that is essential for everyone every day and the better we cater for people walking, the safer our streets will be. Thank you for hearing our statement. We will happily take any questions.

Mr MELLISH: Thanks to both organisations for your very detailed submissions. My question is to Bicycle Queensland on your statement on high-powered e-bikes. Could you elaborate on the first dot point, to reintroduce restrictions on the importation of high-powered e-bikes? Can you outline some of the changes to the importation rules and the impacts that has had in the community?

Ms Nolan: Thanks, member for Aspley. This is a great question. As you know, I was a legislator for a long time so I am sympathetic to your task. Perhaps other people, including those around this table, knew this but I was astonished when I got into the bowels of what has happened here. I know TMR talked to you about this as well. We have written some detail about this in our submission and have sought to set out a timeline of what happened in Australia with these imports.

It is normally the case, and it makes perfect sense that it would be the case, that import requirements in Australia are connected to Australian standards for use and that had been the case with e-bikes. There is an Australian Standard for e-bikes. There is tiny bit of technical difference but it is based on the European standard for e-bikes and I think Australia adopted it around 2012. We were sweet. We were only importing e-bikes into Australia that were compliant and legal for use on Australian roads.

In 2021, for reasons that no-one in the bike industry I have talked to really understands, those two things were disconnected from each other. It became legal to import things called e-bikes that are not legal for use on Australian roads. I live in Ipswich and I can only think of one but every time

you go to the Gold Coast they are everywhere. That is how you have these fat-tyred, high-powered, throttle-powered vehicles that are really illegal electric motorcycles but are being sold by retailers as e-bikes. They are being sold kind of with a bit of a nod and a wink.

I have not bought one, but I think what is happening here and when I look at the websites what appears to be happening here is that the retailers are pretty clear that they are not legal for use on roads. For instance, and sorry for going into the details, but part of the rules is that you can have a throttle but it is really for pushing it along because they are quite heavy. The throttle is really so that it will operate up to six kilometres an hour. On a proper e-bike that is called walk mode. However, you can just press a button and disable that. You have kids riding around the Gold Coast on throttle-powered quite heavy things called e-bikes that are fairly dangerous on the footpath. I would be astonished if the retailers do not know that they are not legal for use on Australian roads and so they are sold and the websites say, 'For use on private property.' As if! What are you going to do; ride it around the backyard?

It is clearly the case that this connection between the import restriction and the Australian Standard needs to be restored. I think that could be done in regulation and not in legislation so it should not be a hard thing for the federal government to do. I noted that TMR, in their evidence, said that they were talking to the federal government about it and seeking to put it on the agenda at ITMM and I think that is a good idea.

I would also say to the Queensland government that I do not think this should be an all care and no responsibility thing. In our submission we urge consistency amongst jurisdictions, which obviously makes sense particularly when you have Coolangatta and Tweed Heads next to each other. If the feds, for whatever reason, are not going to play ball then it would be possible to introduce legislation—and I would think it is probably not transport legislation but fair trading legislation—in order to say that you just cannot buy these things in Queensland. You would still have a problem at Tweed Heads and you would still have a problem with online, but you should not be able to walk into a bike shop and buy a so-called bike that is not legal to use on a Queensland road. We just need to get rid of them not only because, from our perspective at Bicycle Queensland, they are dangerous but also because people call them e-bikes and that decreases confidence in the good safe legal things that we are trying to do and we are trying to promote.

CHAIR: Thank you, Rachel. That was a good response.

Mr KEMPTON: There is a not insignificant number of people who hate these things.

Ms Nolan: You are talking to one.

Mr KEMPTON: In terms of your research, nobody talks about the anxiety that the car drivers and, in particular, pedestrians feel. You seem to be supporting e-mobility if it is not on the footpaths. Has anybody actually gone out into the arena and found out what the rest of the non e-mobility users think about these things? We get a lot of talk that they should be banned and so on. Has anybody tried to address that issue or quantify it?

Ms Nolan: I would love to answer that. We would welcome more research. We know there has been significant research on e-mobility uptake and hospital and health, but we are not seeing the same level of research and data around pedestrians and the anxiety that pedestrians are experiencing. That was one of my key points. We also want to add that, as far as the data that is available, we do not know where pedestrians are being hit, if they are being hit and the locations. There is a problem with reporting around the Queensland Police Service data. That comes back to the way that we report and the dashboard and the clarity of data as well. We would welcome investment in research and to work with partners like QUT and UQ, to be able to expand this research.

Mr KEMPTON: I do not think it should be limited to collisions and injury. There is anxiety and pressure and trauma without being hit by one.

Ms Nolan: Absolutely. In our initial unfunded research that we conducted, when we knew that this was a missing piece that was the key message that came through. People are nervous about the time of day that they are walking, where they are walking to and what they are walking to. That is just from initial unfunded research. There needs to be more of it.

Mr Vann: To add a little to that, I noted in the previous session one of the people said that not a lot of actual clashes are happening between e-mobility and pedestrians. Whether that is true or not, an awful lot of near misses and anxiety are being experienced by people. The little bit of research that we have done shows that that is actually affecting people's confidence in using footpaths. There is definitely an issue there and we need to understand that better.

Mr Demack: Bicycle Queensland's initial position statement about high-powered illegal e-bikes came about from our previous CEO and myself attending community meetings on the Gold Coast and some of your state MP colleagues from the Gold Coast have called meetings arising out of community concern about the safety of all other active transport users and also vehicle users. The member for Cooper talked about the social licence aspects of this. The real concern on the Gold Coast is that e-mobility becomes a thing that is scary rather than a thing that is enabling people to get out of their cars. On the Oceanway and other shared path environments, the use of high-powered e-bikes has been tremendously deleterious to the idea of e-mobility being a good thing. It has basically become something that terrifies people who are going for a walk. The Queensland government needs to fix this because, at the moment on both the Sunshine Coast and the Gold Coast, we have a plague of illegal e-bikes and while we are talking about this those things are out and about and creating incredible social confusion.

CHAIR: Thanks, Andrew. We are going to the Gold Coast tomorrow and the Sunshine Coast on Thursday.

Mr Demack: You are going to hear about it.

Mr MELLISH: This question is to Bicycle Queensland but I am happy for Queensland Walks to comment. In your submission you called for mode-share targets to be reinstated. What kind of targets would be appropriate for Queensland and how would that be best backed in?

Ms Nolan: The sky is the limit. It depends. It is hard to answer this question definitively because it is going to be different in different places. For instance, you are crazy if you drive your car into Brisbane city for work so you are looking for higher mode-share targets of public transport and active transport from the inner suburbs. That will be different, for instance, in regional areas. I believe, and it was a little while ago now, that the last Queensland transport strategy to include mode-share targets, which was the one that I did, had mode-share targets of around 10 per cent for active transport. What happened over a number of years from that time—and I am not particularly trying to lay blame about who and when—was that there was a decrease in associated funding. Mode-share targets without a funding stream for separated infrastructure are not going to get you very far so the ultimate response to that was not to fund them but to remove the mode-share targets.

Mode-share targets are a very useful tool in creating real change. It disappoints me that the response was just to stop talking about it, but I do not think this is a change that is going to happen quickly. We are getting more congestion, not less. Oftentimes cyclists on the roads are coming to feel less safe and confident, not more safe and confident. You will note that we called for these two things. What we want is essentially for bikes, walking and active transport to be a real, live choice for people so you would feel confident that, particularly for a short trip, you could ride to the shops or that kids—go crazy—could ride to school without the sense of taking their lives in their hands. Right now that is not where our transport policy settings are. Right now our transport policy settings are 'motor normative'. We just assume cars and then that builds upon itself. Without ever meaning to exclude active transport, that is where we land.

We want to stop, pause and think about this. Let's think about what it would take for active transport to be a live choice. That would involve changes in policy. We have also called for speed limit reductions on suburban streets. In my lifetime they have gone from 60 to 50. We think they should go to 40. We have called for a higher proportion of the transport budget. Active transport, while it is talked about a lot, gets less than one per cent of the TMR budget, which is just a total drop in the ocean. We would like mode-share targets to drive the thinking about those things. We believe that if we got there then riding your bike would not be a crazy thing to do; it would be a normal thing to do. Then people would be a bit healthier and life would be a bit more relaxed.

Mr Vann: I would like to respond. Essentially, what Rachel has said is that mode share follows infrastructure and safety is the key impediment to both bike use and walking. The more money we spend on separated infrastructure, safe infrastructure, quality infrastructure—how many thousands of kilometres of roads do we have in Queensland that do not have a constructed footpath or have a poorly constructed footpath—that will create the mode share. I agree that you do not change mode share by continuing to spend roughly the same percentage on all of the modes. You need to shift the percentage to shift the mode share.

Lastly, I want to say that the 2032 Olympics are an absolute opportunity to make this city and the other venues more walkable. We should have mode-share targets for walking up to those venues. We see it every day with Suncorp. They have a very high proportion of people who either walk or catch public transport, so there is an opportunity.

CHAIR: I think you will both be interested to know that Michael and Joel from the RACQ talked about the importance of pedestrians and getting this right. We talked about making it simple: if it is over 25 kilometres an hour, it should be illegal and considered a motorbike. I thought that was really simple. Added to that is the 12-kilometre speed limit for pedestrian areas. Can you both comment on those two aspects, particularly around the pedestrian experience and fears and safe environments? We want to get this right.

Mrs Campbell: We were part of the process of consultation with PMD groups for legislative change. We support the 12-kilometre speed limit on footpaths in most places. In some places we encourage keeping PMDs and e-mobility away from areas. Particularly in city centres, town centres and around venues people can park their e-mobility device away and walk up. It is not an issue. That is one thing.

As far as 25 kilometres, it needs to be the right type of infrastructure. We are recommending separated infrastructure. We are seeing, particularly in Brisbane along our commuter and recreational routes, a little conflict between fast riders and people walking, running and rolling. It makes people really nervous to be active in those areas, so investment in separation is key. We happily support 25 kilometres with the right designed infrastructure.

Mr Demack: We have created some real problems with our current regulatory framework around e-scooters. TMR kind of left this to councils. Everybody talks about footpaths. Actually, in Queensland they are mostly shared paths, which is to say they are usable by bikes and now by scooters and pedestrians. In CBDs and city centres this is almost always a recipe for disaster. What we must do is provide separation in city centres. Richard talked about this in his submission. Where we provide separated infrastructure for scooters and bikes then there is not a problem on footpaths other than if we allow parking on those footpaths for e-scooters.

Most of the infrastructure that is constructed for bikes in the suburban areas of our cities is shared paths. TMR said it is 12 ks on a shared path except where a council signs otherwise. Almost no council has signed otherwise for its suburban network, so theoretically all of the e-scooter riders who ride to work on the quite good, standard three-metre-wide shared paths in our suburbs are actually breaking the law because councils have not signed those as 25 ks an hour because it would be a massive task to do that. Our regulatory environment does not make a lot of sense to most e-scooter riders, and almost all e-scooter riders at some point in their commute are breaking the law. That leads to, we think, a cohort of e-scooter riders who see the laws as not applying to them. That is a problem. That could transfer to bikes as well. Mostly it is a problem for e-scooter riders because we have a blanket 12 ks an hour on shared paths, but nobody can tell me the difference between a shared path and a bikeway. It really is a very grey area.

The BCC signs a lot of their things as bikeways that are actually shared paths because they share the mode with walkers. If I am riding home on the Tarragindi bike path that is an entirely shared space where e-scooter riders should be going at 12 kilometres an hour, but there is no requirement for me to go 12 ks an hour on my bike. I can go at whatever speed is suitable to me. We have created a lot of grey areas and some potential where e-scooter riders are penalised unfairly, in my view. I think that needs looking at. In city centres and CBDs, footpaths are for pedestrians—I 100 per cent agree with my Queensland Walks colleagues on that—but it is a slightly more nuanced discussion beyond CBDs and city centres.

CHAIR: One last question from the member for Cooper and quick answers if we can. We are over time.

Ms BUSH: Thank you, Chair. I will keep it quick as well. I just wanted to thank you both. I am very lucky to have both Queensland Walks and Bicycle Queensland based in my electorate. You do fantastic work and it is lovely to see you both here. I want to pick up on some of the themes we have talked about. The concern I see in the western suburbs of my electorate is more of the same when it comes to infrastructure investment: bigger roads, more roads, wider roads, faster roads. We are not thinking about the big picture. We have also seen how cultural and economic interventions like the Olympics cannot just do more of the same but can also reshape cities. I guess it is about allowing you to pitch to us in terms of Olympics opportunities. Where are those opportunities for Brisbane and Queensland? What types of things should we be thinking of now and into the future, and what are the risks if we get it wrong?

Mr Vann: I can respond quickly on behalf of Brisbane Walks. You are my local member, member for Cooper. We are doing some work right now about looking at ways to make walkability around Olympic venues happen not only in South-East Queensland but also in Rockhampton and other places. We are very strongly and closely involved in the Green Pathways, Gold Places work

that is being done collectively by the Planning Institute of Australia, architects' institute and so on, which is a really nice framework in which to do this. The big opportunity for our region and our state through the Olympics is making it more walkable and creating a variety of ways for people to get around. Every car you take off the road is another space for the rest of the cars to use. It is not a zero-sum game. The most efficient uses of space are walking and biking. You can move a whole lot more people that way than you can in cars. It is just about how we use our spaces.

Ms Nolan: I agree. This is a remarkable opportunity. The great cities of the world have discouraged cars from their inner cities because they had to. They have encouraged bikes and walking in their inner cities and made them greener, more pleasant places to be. If we do not make that fundamental change in Queensland in time for the Olympics we will look backwards. It will be foolish and embarrassing. We do need to think about what sort of green, healthy and well-connected Brisbane, Ipswich and regional centres in Queensland we want to present in 2032. The transport department is preparing the Olympic transport plan this year. They have a legislative obligation to do so. This is really a critical body of work right now which we—Queensland Walks have already talked about this—will seek to contribute to. We absolutely have to get this right.

Ms Heath: I would like to add that the four central themes of the Elevate 2042 document, which outlines the legacy vision for our state, are around connectivity, accessibility, equity and health and wellbeing. When we are talking about cycling and walking around our city and our region, making that easier and encouraging it are directly aligned with the legacy visions and outcomes we want associated with the games. That is where we start to fit in and can see our case.

CHAIR: In answer to your challenge, Rachel, I can assure you—and I can share with the committee—that when the Premier asked me to chair this committee he said, 'We are bringing sport, racing, Olympics and Paralympics together with infrastructure, state development and transport and main roads as well as housing and planning so Queenslanders know that the legacy of the Olympics will be transport and infrastructure.' Thank you for that challenge.

That concludes today's hearing. Thank you to everyone who has participated. Thank you to our Hansard reporters and broadcast staff for their assistance. A transcript of today's proceedings will be available on the committee's webpage in due course. I note there have been intermittent sound problems and technical issues.

I see that the professor from QUT is still. I can tell you, Professor, that on 11 June the deputy director-general referred to the research you outlined and said it will be available midyear and they will share it with this committee, so thank you for your work in that space. I declare the public hearing closed.

The committee adjourned at 4.43 pm.