

MINUTES

Transport Reform Policy Chapter Workshop

Transitioning to an automated future

Friday 28 April 2017

Location: Clayton Utz, 71 Eagle St. Riparian Plaza, Brisbane

Welcome and Introduction

Michele Huey, the Roads Australia Transport Reform Chapter Deputy (and Group General Manager, Strategy at Transurban) welcomed guests and speakers to the 'Transitioning to an automated future' workshop in Brisbane.

The workshop was run by Roads Australia and hosted by Clayton Utz.

Michele introduced the forum as an investigation into unravelling the key challenges we face as we move towards a world of connected and automated vehicles, including; the view from a transport user's perspective; liability issues around CAVs and innovative infrastructure and the role of private enterprise. Key stakeholders from local government, the private and financial sectors spoke about the scenarios they're preparing for, and what we can learn.

Michele recognised the mix of 50 organisations in the room representing road agencies, construction companies, engineering consultants, legal services, local and state government, tech companies and others.

Presentation 1 - Steve Spalding, Executive Manager Technical & Safety Policy, RACQ

Steve Spalding from RACQ gave the opening presentation detailing the impacts of automated vehicles from a users' perspectives. Steve highlighted that Australian consumers have a wide range of needs, and it is unlikely that a uniform service offering will meet these needs. Practical solutions are needed that ensure equitable transition of mobility, taking into consideration access, cost, protection, safety, choice and infrastructure.

Steve outlined the fact that car ownership is strong in Australia. 55% of people drive every day. 30% use their car mainly for work. But there has been a 9% decline in regular car use between 2003 – 2012. Will people still need to own their own vehicle in the future? Or as cars become more connected and technically complex and integrated, car makers may only offer leasing options. Governments will need to ensure that consumers are protected during this 'disrupting' process.

Steve discussed the issue of driver competency, and managing driver/owner responsibility. There will need to be processes in place to ensure that 'co-drivers' are taught how to understand and control the new technology safely.

Steve posed the final question – 'How do we get machines and humans to share the road'?

Presentation 2 - Dennis Walsh, General Manager, Land Transport Safety, Department of Transport and Main Roads

Dennis Walsh from DTMR presented on the future of mobility, innovative infrastructure and private enterprise. Dennis gave an overview of the Queensland Government's objectives for the community and strategic plan, and highlighted their goal to create a single integrated transport network accessible to everyone.

Road trauma has huge societal impacts – there are around 260 deaths and 6000 hospitalisations each year in QLD alone. The government sees AVs as an opportunity to significantly reduce these devastating impacts and is expanding currently to meet the needs of the automated future.

Dennis outlined two possible scenarios, 1 - private ownership model, where mobility services in the future are delivered primarily through privately owned vehicles, and 2 - a mobility as a service model where mobility services in the future are delivered primarily through sharing economy business models.

AVs are dependent on governments to maintain the physical asset and provide supportive policy, legislation and regulations, while C-ITS is dependent on governments to provide arrangements for radio communications, ITS infrastructure data and system integration, a security system and positioning augmentation.

Dennis suggested possible challenges for AV rollout in Australia including: quality of internet connectivity, the high percentage (43%) of unsealed roads, line marking inconsistencies, variations in road signs such as stop, speed limits, etc, locations of the signs and unusual weather patterns such as heavy rain which can impede the current technology.

Dennis reiterated that technology is moving from development stage to market faster today than ever before, but there is no real way to predict the timelines for CAVs as everyone in the industry has different ideas about when Level 4 automation will be successfully rolled out.

Presentation 3 - Mark Waller, Partner, Clayton Utz

Mark Waller from Clayton Utz discussed the legal issues around the transition to a future with automated vehicles, focussing on Queensland Compulsory Third Party insurance, related information access, recovery, and the current technology and use of AVs. The complexity of this unfamiliar environment calls for focus and a staged approach to managing the shift between current stakeholders and assessing legal responsibility.

Mark gives the example of the fatal Tesla accident in the US in 2016 to discuss what would happen if this occurred in QLD. He posed the questions – 'what is the definition of an insured person?', 'is Tesla an insured person?', 'is a system operator an insured person?' Mark highlighted the need for clarification on legal terms such as 'driver' and 'insured person' and discussed that in theory Tesla, or the system operator could be covered by CTP insurance as a 'person' if one of their cars was involved in an accident.

Mark and discussed why the CTP insurer has the rights to recovery, and how this would be difficult in relation to the Tesla case. Mark also highlighted that the CTP insurer has statutory rights to the data and information gathered through the AV system.

Mark confirmed that the shift of legal liability will likely lead to changes to CTP legislation, either to exclude liability or to shift premium burden, and that we should continue to follow a staged review of the legal framework but focus on immediate needs today.

Panel Discussion

Moderator: Simon Newcomb, Clayton Utz

Scott Stewart from Brisbane City Council (BCC) spoke about how councils need to focus on looking forward and creating cities that people actually want, not just creating cities that accommodate new technology. BCC has to rethink mass public transport and how it will work in the future. A Parking Taskforce has been created to improve the use of space in the city and gather data about how people are using parking and land. Scott reiterates that it is essential that BCC starts to look at the changing revenue streams that will come with these impending technology changes. Scott talks about freight being an important industry, and if there is money to be made by using AV technologies then we should be embracing these opportunities and running trials.

Michael Kent from Transit Systems discussed mass transit systems and their future, focussing on efficiencies that can be made in bus transport. As the driver is the biggest cost in running buses (over 50%), automated buses will free up a lot of money, and the governments may wish to take back ownership of the privately tendered bus system which currently operates, to capitalise on those savings. There are currently over 2200 bus drivers in QLD who could lose their jobs, many of these men over 45 years who could become vulnerable in the face of job losses.

Michael compared the benefits and drawbacks of driverless transit systems, stating that although the costs will be very high to begin with, those costs will come down, and the savings and efficiencies made through reduced labour costs, eliminating driver breaks and implementing tighter more efficient scheduling and more services would far outweigh the initial costs. Michael reinforces the fact that AVs won't be the end of public transport, but they will force PT to become more efficient which is a good thing.

Jeremy Nassau from Transurban discussed how Australia should capitalise on ITS opportunities to undertake trials and improve our transition to an automated future. Although it is difficult to make changes to the network yet, as we don't know for certain what, how and when the technology will be on the roads, it is important to start planning and undertaking trials, and the best place to do this would be on motorways as they are a simpler environment than other roads in Australia.

Dennis Walsh from Department of Transport and Main Roads discussed road funding models and automation rollout in different sectors. As AVs and electric vehicles take to our roads, fuel tax revenue will reduce and create the need to develop other ways to collect money to fund infrastructure. Automated shuttle buses, robots operating at freight ports and platooning of trucks are all happening now, and it is important that the government works with industry partners to start low scale trials, and to ensure smooth operating of these types of automated technologies. Dennis doesn't believe that there will be a reduction in vehicles on the roads anytime soon, and if there is, it will play out over a very long time and is not an immediate issue. Dennis highlights the importance of engaging with the community when making decisions on road funding models, and believes that mobility as a shared service is a very long way off. Governments not only have to find ways to raise money to pay for roads, but they also need to find ways to influence behaviour to prevent chaos on the roads.

Dennis unpacks a question from the audience about how Australia will keep up with global technologies and compete in a global market when our internet bandwidth is one of the worst in the world. This is a big issue for AV technology because every vehicle will be connected to the network, a car will basically be a moving mobile phone, and users will need to access the network to use the vehicles. Dennis recommends learning how other countries manage this, learn from them, and run

our own trials to test our connectivity capabilities as early as we can to ensure that safety on the roads is not compromised by inadequate telco infrastructure.

Mark Waller from Clayton Utz brings up the issue of legal liability if fleets of AVs are compromised by connectivity. In the case that there is an accident on the road caused by the network failing, it would be very difficult to go after someone operating a satellite in another part of the world. Mark reiterates that there needs to be ways to ensure recovery in case of accident or loss.

Steve Spalding from RACQ talks about the cost of motoring, which is always in the top three issues that the public raise and is an ongoing concern. Steve cites motorists don't often consider the full cost of car ownership, stating that depreciation is the biggest cost (35-40%), and fuel costs are relatively small (12-15%). Steve recommends a strong consistent message to the community to alleviate concern, myths and fears about the new technologies. Consumers aren't buying electric vehicles (EVs) on mass, one reason why is that there are no government incentives to purchase them. The only group that has taken up electric vehicles is the taxi industry, as they realised the fuel savings that could be made. The EV products available aren't engaging enough with the public to buy them, and this needs to change if we want more sustainable transport solutions for the future.

Closing summary

Michele Huey summarised the key themes from the workshop.

- There are many different perspectives in this discussion, but one common thread is that the future is looking encouraging and that AVs will bring many benefits to society.
- The AV discussion isn't only about adapting to new technology, it is also important to consider all stakeholders and how they are impacted.
- When discussing ownership, we must consider the human factor and how society will adapt their habits and respond to these technological changes and interactions. Will humans welcome AVs and hand over control? Communication and collaboration is key to this.
- Legal and insurance issues surrounding AVs are complex but imperative, and need more clarification before AVs take to the roads.
- Effective collaboration between government, private, broader industry, consumers and user representatives is essential.
- There is not a lot of point in trying to pinpoint the arrival of the vehicles as there is still so much uncertainty, but it is important to get proactive about planning for the different scenarios that could play out, in order to make the transition to an automated future a good one.

Conclusion

In closing, Michele acknowledged everyone for coming, and sharing their perspective and thanked presenters and panellists for their insights. Thanks to Clayton Utz for supporting and sponsoring this event. All presentations and photos from the day are up on our website.

Participants

Organisation	First name	Last name	Role
3M Traffic Safety and Security Division	Gavin	Duigan	
AECOM	Elke	Mendels	Associate Director - Transport Planning
Arcadis Australia Pacific	Steve	Maclay	Independent Reviewers Representative
Arcadis Australia Pacific	Russell	Whale	Technical Director
Arup	Alex	Borg	Associate Principal QLD Transport & Resources
Arup	Zoran	Chakich	Smart Mobility and ITS Engineer
Arup	Donald	Ewen	Civil Engineer
Aurecon	Gavin	Chadbourn	Asset Management Lead
Aurecon	Thomas	Chisholm	Senior Project Manager
Aurecon	Matt	McQuaid	Client Manager
Aurecon	Kyriakos	Tyrologos	Transport Planning Lead
Australian Local Government Association	Kym	Foster	Director Transport Policy
Australian Road Research Board	Tracey	McNeil	Business Manager (Research & Consulting)
BG&E	Stuart	Cook	Senior Civil Engineer
BG&E	Keith	Kim	Principal - Civil
BG&E	Kaiyu	Lin	Associate Director
Brisbane Airport Corporation	Martin	Ryan	Head of Parking and Transport Services
Cardno	Colin	Tull	Manager Transport Infrastructure - QNT division
Cement Concrete & Aggregates Australia	Aaron	Johnstone	State Director, QLD
Clayton Utz	Jonathan	Corby	Partner
Clayton Utz	Chris	Erfurt	Senior Associate
Clayton Utz	Stephen	Fall	Partner
Clayton Utz	Cameron	Gascoyne	Partner
Clayton Utz	Alex	Lundie	Special Counsel
Clayton Utz	Simon	Newcomb	Partner
Clayton Utz	Mark	Waller	Partner
Clayton Utz	Laura	Walton	Special Counsel
CPB Contractors	Loren	Hickey	Business Development Manager
CPB Contractors	Joshua	Yates	Business Development Manager - Qld/PNG
Downer Infrastructure	Peta	Dixon	Business Development Partner - Infrastructure Serv
Downer Infrastructure	Kevin	Mills	Business Development Manager Infrastructure Services
DTMR	Brendan	Hoyle	Manager (Road System Strategy) Roads, Rail and Ports
DTMR	Liam	Irwin	Advisor

DTMR	Andrew	Mahon	Executive Director
DTMR	Michael	Mailloux	Manager, Transport Policy Branch
DTMR	Ross	Mensforth	Director
DTMR	Ross	Mensforth	Director
DTMR	Alex	Milward	A/Manager, Transport Policy Branch
DTMR	Mike	Swainston	Principal Engineer (Delivery Systems)
DTMR	Bradley	Tubb	Director, Transport System Governance
DTMR	Dennis	Walsh	GM for Land Transport and Safety
DTMR	Mathew	Yong	Acting Manager
Egis Projects Asia Pacific	Jason	Keys	Business Development Manager
Egis Projects Asia Pacific	Oliver	Leupold	Business Development Manager
Engineers Australia	David	Spediacci	Business Development, Sales and Account Manager
Everything Infrastructure Group	Phil	Meyer	General Manager QLD
Everything Infrastructure Group	Kay	Salvair Smith	Executive General Manager, Commercial
Fulton Hogan	Richard	Cowley	Strategic Development Director - Defence
GHD	Graham	McCabe	Service Leader, Transport Optimisation & Planning/Infrastructure Advisory
GTA Consultants	Simon	Davis	National Business Development Manager
GTA Consultants	Sarah	Dewbery	Consultant
GTA Consultants	Mac	Hulbert	Director
HDR	Mark	Fairweather	Managing Director
Infrastructure Australia	Adrian	Dwyer	Executive Director, Policy and Research
Jacobs Group	Oliver	Chambers	Vacation Student Planner
Jacobs Group	Craig	Gorlick	Senior Economist
Jacobs Group	Alexander	Pollock	Principal
Jacobs Group	Matt	Ryan	Senior Strategic Transport Modeller
Kapsch TrafficCom Australia	Ivan	Heigan	Operations Manager
Kapsch TrafficCom Australia	Damian	Morris	VP Delivery and Operations
Lindsay Australia Limited	Broderick	Jones	General Counsel
Local Government Association	Scott	Britton	Senior Advisor Roads and Transport
Moreton Bay	Rhys	Dennison	Legal Officer
National Heavy Vehicle Regulator	Daniel	Elkins	Director of Safety and Productivity
National Transport Commission	James	Williams	Policy Manager
North Surveys	John	Carroll	Managing Director
QIC Global Infrastructure	Tom	Steinfort	Associate
RACQ	Steve	Spalding	Executive Manager Technical & Safety Policy
Retina Visions	Michael	Cybulski	Managing Director

Retina Visions	Marc	Miska	Technical Director
Rider Levett Bucknall	Nav	Nadarajah	Senior Quantity Surveyor
Rider Levett Bucknall	David	Stewart	Managing Director Qld
Roads Australia	Alex	Stott	Policy Manager
SLR Consulting Australia	Arthur	Hall	Principal Consultant
SLR Consulting Australia	Shane	Healey	Technical Discipline Manager - Transport Advisory
SLR Consulting Australia	Brett	McClurg	Technical Director - Transport Advisory
SMEC Australia	Jeff	Davis	Manager Transport - QLD/NT
SMEC Australia	David	Freer	Principal Transport Planner
Struber	Kate	Thomas	Communications Consultant
Transit Systems	Michael	Kent	General Counsel
Transmax	David	Apelt	Chief Technology Officer
Transmax	Patrick	Dare	Business Development Manager
Transmax	Mark	Johnson	Director - Consulting Services
Transport for NSW	Heroly	Chour	Senior Agile Business Analyst
Transport for NSW	Megan	Whitlocke-Jones	Director, TMC Systems Development
Transurban	Michele	Huey	GGM, Strategy
Transurban	Jeremy	Nassau	Manager, Strategy
Ventia	Brendan	Gough	Project Manager - Operation & Maintenance
WT Partnership	Jon	Mander-Jones	Queensland Infrastructure Lead
	Erik	Finger AO	John Shaw Medalist

For information about the Roads Australia Transport Reform Policy Chapter, please contact Mandi Mees, Executive Director – Policy mandi@roads.org.au