

POLICY WEBINAR

LEADING CHANGE IN WORK ZONE SAFETY

Thursday 21 October 2021



Liz Waller
Transurban



Dr Ashim Debnath
Deakin University



Matthew MacMahon
Fulton Hogan



Amanda Tarbotton
Transport for NSW

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ABOUT ROADS AUSTRALIA

[Roads Australia](#) (RA) is the peak body for roads within an integrated transport system, representing an industry that contributes \$207 billion annually to the economy and supports 1.3 million jobs.

RA brings industry, government, and communities together to lead the evolution of Australia's roads, integrated transport and mobility.

Roads Australia's members include all of Australia's transport agencies, road owners, major contractors and consultants, material suppliers, service and technology providers, and other relevant industry groups.

RA's policy focus extends across five activity streams: Safety; Capacity; Transport Reform; Customer Experience; and Sustainability, with Diversity and Inclusion a commitment across each stream.

Visit our [website](#) for upcoming policy events to contribute to the debate.

BACKGROUND

[National Safe Work Month](#) occurs each October, asking workers and employers across Australia to commit to safe and healthy workplaces for all Australians. Roads Australia strongly supports the development of measures to improve the safety of road workers.

It is our number one policy priority and the core objective of our Road Worker Safety Working Group (RWSWG).

The RWSWG began in 2019 as the RA Board recognised that our organisation must be the leader in ensuring the safety of our road worker community.

The group includes executives from industry, government, and peak body associations all working together to raise the safety standards of traffic management and road workers.

EVENT SUMMARY

Over 170 people registered to join the webinar to hear from the following speakers:

- [Liz Waller](#), Road Safety Manager, Transurban
- [Matthew MacMahon](#), Chief Executive Officer, Infrastructure Services, Fulton Hogan
- [Dr Ashim Debnath](#), Senior Lecturer in Transportation Engineering, Deakin University
- [Amanda Tarbotton](#), Director Health & Safety Greater Sydney, Transport for NSW

The discussion was hosted by [Graeme Silvester](#), RA Safety Policy Stream Deputy Chair and Chair of our Road Worker Safety Working Group.



POLICY INSIGHTS

Each of the speakers focused on a different but equally critical area of road worker safety.

Liz Waller, Road Safety Manager, [Transurban](#), started the webinar by affirming Transurban's commitment to the objective of zero fatalities or serious injuries. They work to achieve this through their focus on two themes: data driven positive safety outcomes and innovation for safety.

Data

The first scenario Transurban studied was motorist compliance around closed lanes. Lane closures are an important aspect to focus on as they can either be planned through maintenance or roads works, or unplanned due to crashes or broken-down vehicles. To indicate a closed lane, Transurban use the overhead signage on CityLink, a modern managed motorway, to put a 'red x' over any running lane – which is why these are sometimes called 'red-x' lanes. Under the Australian road rules, where a lane is marked by a 'red x', motorists are required to leave the lane as soon as it is safe to do so.

CityLink in Melbourne is one of the world's most highly managed motorways. Studies supported by Transurban on CityLink have provided detailed data on how people drive through closed lanes. Noncompliance with the closed lane road rule can be generally categorised into either unintentional or intentional. Unintentional reasons may include a driver's inability to merge, or a lack of awareness about the road rules. Intentional noncompliance may occur because the driver cannot see an obvious hazard or workers on foot or have a disregard for the rules.

Transurban also undertook a study to understand and address the challenge of motorists speeding in work zones. The study was completed by measuring the speed of motorists in different worksites over time and then presenting that data to a representative sample of drivers to obtain their views of speeding. Liz advised that through obtaining the views of their customers, Transurban found motorists classify extreme speeding as more than 20km/h over the speed limit. Although a high number of motorists (80 per cent), said they have witnessed extreme speeding, only 10 per cent admitted to extreme speeding themselves.

Nearly half the surveyed motorists (48 per cent) cited keeping up with traffic as their main motivation for extreme speeding.

The data collected helps Transurban understand how safety can be improved. As a result of the studies, Transurban was able to update its Linkt website with more relevant material to improve the motorists' understanding of the reasons for lane closures, and thus encourage greater compliance.

These materials were also deployed through the media and on social media to promote safer driving on the network and keep roadside workers safe.



Innovation

Innovation is a big focus in the goal of improving the safety of road workers. Liz detailed a range of technology innovations being considered across industry, such as smart speed humps that can detect dangerous vehicle speeds to alert workers, and vests that vibrate to provide warning to workers about approaching vehicles. A robotic traffic cone, going by the name "Coney", is an innovation developed by Transurban and Telstra as a prototype, and has gathered a lot of interest from Transurban stakeholders. Coney is designed to deploy automatically or through remote control for traffic management tapers and aims to get road workers off the roads to remove them from harm.

To date, this technology would have best application in lower risk environments such as local streets, but Liz highlighted there is an innovation opportunity for it to be developed for use in high-speed, high-risk environments.

Innovation was also highlighted by **Matthew MacMahon** Chief Executive Officer, Infrastructure Services, Fulton Hogan. His organisation has developed the Gibney Barrier as a way to keep road workers out of live traffic.

While this product recently received approval from the [Transport Infrastructure Product Evaluation Scheme](#), Matthew mentioned the difficulties in getting the industry and clients to accept innovation.



Real life impacts

Matthew also highlighted that there are very real people behind the statistics when it comes to crashes and near misses involving road workers.

To provide context, he explained how the CAM safety system works. CAM measures how seriously a person rates a near miss and anything over a very high-risk threshold is reported to him as CEO. At present, he receives notifications of 2-3 of these very high-risk incidents a week, indicating the seriousness of the challenge

The consequences of getting the safety of road workers wrong are severe. Matt observed the sombre reality is that in the last 6 months at [Fulton Hogan](#), there has been one fatality in NZ and 2 serious injuries in WA.

One consequence of more night works being completed to counter congestion is that workers are now more exposed to drug, alcohol, and other community problems while they are working.

Matthew made an emotive call to arms by stating that road worker safety is not just a [Fulton Hogan](#) problem or a Roads Australia problem, it is an industry problem - and ultimately an issue that the entire community needs to be involved in addressing.

A great example of positive developments in the area is main road clients moving a whole worksite using crossovers, so workers are not exposed to traffic at all. Matthew also highlighted an international example in Europe and America, where car radios will automatically play safety warning messages to motorists as they approach a worksite.

Another initiative is Fulton Hogan's traffic toolkit, which includes numerous traffic management solutions that can be adapted to different worksites to improve the safety of their staff. Matthew also emphasised how a safer workplace ultimately results in improved quality, productivity, and economic outcomes.

In addition to the above, there are various options available to make road workers safer including police presence on site, separating safety line items on tenders so it is more evident during procurement, as well as educational advertising campaigns supported by governments and industry. Matthew finished his presentation by acknowledging there is no silver bullet, but a focus on road worker safety should be at the forefront of every industry conversation.

Evaluation

As the industry innovates and implements practices to improve the safety of road workers, **Dr Ashim Debnath**, outlined the importance of being able to effectively and fully evaluate these changes. Evaluation is necessary to understand if the measures will work, if they are working once deployed and if they will keep working into the future.

There are three phases to the evaluation: planning, short-term field testing and long-term field testing.

The usefulness of the evaluation is dependent on whether various other factors have been considered.

Some elements to consider throughout an evaluation include site geometry, traffic management plans, traffic conditions, time of day, day of the week and human factors. Another key test of measures being introduced is to ensure they do not produce unintended consequences.

Ashim stressed the importance of ongoing dialogue and encouraged webinar participants to contact him to discuss any potential evaluation, or to learn more about [Deakin University's activities in this space](#).



Contract Clauses

Amanda Tarbotton, Director Health & Safety Greater Sydney, **Transport for NSW** provided a stark reminder of the immediacy of the dangers road workers face.

She noted that even as the webinar was in progress, she had received notification that a bus had driven into one of TfNSW's worksites. The safety of road workers is in the top 3 risks that TfNSW deals with, and exposures occur every day.

Amanda acknowledged that emergency road works require a different response than planned maintenance work, because emergency works occur in time poor environments and often in high-speed, high-risk areas.



While she acknowledged that a lot of good things have been done in the area, including Austroads updating its [guidance](#), the industry achieving a stronger policy footing and becoming more agile, there is still more to be achieved. There is a need for a multifaceted approach, with 'out of the box' thinking for new contracts because step change is required - and change takes time.

The legacy contract clause now being applied by TfNSW was born through organisations recognising the need for an innovative approach, because the current mechanisms weren't working. The legacy contract clause encourages companies to eliminate the need for workers to be on foot over the course of the contract. The clause was purposely left open for interpretation because this will foster innovation in the field.

TfNSW's annual safety forum had occurred the day before the webinar, where all tier 1 operators spoke about safety. Amanda reported that all the breakout conversations had emphasised the need for greater prioritisation of the safety of road side workers.

Amanda closed her presentation by calling for the industry and its partners to mobilise and accept the challenge to develop innovative solutions.

Q&A

What are your thoughts on all states and territories increasing roadwork enforcement?

Matthew, Liz, and Amanda all expressed their support for increased enforcement activity at worksites. However, Amanda questioned the practicability of being able to have a police presence at every site. This led to Liz proposing automated enforcement (such as the use of speed cameras) around work zones as a potential solution.

Do contractors get access to enough information to keep our workers safe? If not, what could be made available?

Amanda and Matthew both agreed that not enough data is collected or if it is collected, it is not shared. However, Ashim made a telling point that although any data is good, the key question is how it is used.

Even a solid data set used in the wrong way risks drawing the wrong conclusions. Determining what data is available, how it is used and where it is best applied is what will make a meaningful difference.

Parting Thoughts

Jane Rotesy, General Manager HSE, Transurban, summarised the webinar by highlighting its consistent themes around data, innovation, evaluation, and education and reinforced that high quality data is key to driving innovation for safer outcomes. She thanked webinar participants and expressed Transurban's pride in being a member of RA and sponsoring the event.

Graeme Silvester closed the session by emphasising the webinar's importance as a great opportunity to hear from experts that are leading meaningful changes that will enhance road worker safety across Australia.

EVENT OUTPUTS & NEXT STEPS

An overview of the event and the broad themes addressed during the webinar was circulated via [RA's LinkedIn channel](#).

After the webinar a survey was sent so attendees could provide their thoughts. The survey revealed strong industry support for a national approach to road worker safety, a focus on innovation that will help keep workers off site and speed enforcement in work zones.

