



# Spotlight on Safety

Thursday 13 October 2022



James Bennett  
Ventia



John Baillie  
Waka Kotahi



Janette O'Brien  
ServiceStream



Ryan Wood  
HW Martin



Chris Koniditsiotis  
Austroads

## About Roads Australia

[Roads Australia](#) (RA) is the peak body for roads within an integrated transport system, representing an industry that contributes \$236 billion annually to the economy and supports 1.4 million jobs. RA brings industry, government, and communities together to lead the evolution of Australia's roads, integrated transport and mobility.

RA'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. Diversity and Inclusion is a commitment across each stream.

## Background

Safety is RA's number one policy priority with a focus on improving the safety of those who work on our roads.

Keeping road workers safe is the objective of RA's Road Worker Safety Working Group (RWSWG).

Utilising the experience and connections of RWSWG members, RA brought together industry experts in road worker safety from Australia, New Zealand and the United Kingdom.

Each speaker showcased their jurisdiction's innovations in road worker safety and participated in a Q&A panel discussion. The moderated session focussed on sharing ways to overcome barriers to innovation.

## Event Summary

100 people registered to attend the event to hear from the following speakers:

John Baillie – Programme Director, [Waka Kotahi NZ Transport Agency](#)

[Janette O'Brien](#), General Manager HSEQ Transport, [Service Stream](#)

[Dr Ryan Wood](#) – Technical Manager, [HW Martin](#)

[Chris Koniditsiotis](#) - Consultant, [Austroads](#)

The breakfast was hosted by [James Bennett](#), Operations Manager Transport Technology and Services, [Ventia](#).

## Shared International Challenge

Getting workers on our road networks home safe is a challenge shared internationally.

All speakers acknowledged the significant risk road workers face in their country when on the roads.

**Chris Koniditsiotis** shared the sobering statistics from a recently published Austroads report, '[Benefit-cost analysis of the national harmonisation of temporary traffic management practice](#)'

Utilising available data, Austroads estimated the average number and economic cost of crashes at roadside worksites in Australia each year. This analysis showed that on average, each year, there are:

- 18 fatal crashes
- 245 serious injury crashes
- 530 minor injury crashes

Although the statistics relate to Australian worksites, **John Baillie** and **Ryan Wood** echoed the seriousness of the issue in their respective jurisdictions.

Any worker's loss of life is one too many, which is why industry is working to eliminate or minimise the risks for road workers.

## Contract Innovation

It's easy to imagine shiny new devices when thinking of innovation, but this is not the only aspect of it.

**John Baillie** presented Waka Kotahi's work on contract innovation, where they are aiming to achieve safer outcomes for road workers by changing their contracting methodology.

With increased investment not producing safer outcomes, Waka Kotahi began thinking differently about their contracts.

By rethinking its approach, Waka Kotahi is attempting to minimise risks to road workers.

John summarised Waka Kotahi's contract innovations, which included:

- contracting for an outcome;
- time-bound instead of price-bound contracts;
- non-lowest price conforming;
- prioritising safety over journey time;
- test/trial new ways of work/tools quickly; and
- separating safety from the total price assessment.

The changed approach to economic costs is an important aspect of contract innovation.

For organisations to be commercially viable, a balance between cost and risk must be maintained.

Previously there has been an unbalanced emphasis on cost, leading to unsafe outcomes. To re-balance these factors, Waka Kotahi has shifted away from price bound and lowest price conforming contracts.

John also detailed how Waka Kotahi is moving towards considering safety separately from the total price assessment.

Changing procurement to evaluate safety separately is also an initiative of the RSWG to enhance safety outcomes.

The initiative began through the realisation that bidders submitting tenders are not spending as much on safety as they would like for fear of becoming uncompetitive.

**Janette O'Brien** summarised the benefits that can be unlocked through government clients evaluating safety on a below-the-line basis:

- aligning incentives for genuine improvements to road worker safety among buyers and suppliers;
- improving transparency across bids on approaches to and levels of investment in safety;
- creating new opportunities for positive differentiation in bids, without reducing value for money;
- greater reputational protection as higher safety standards reduce the risk to workers and the general public at worksites;
- allowing companies to deliver and refine innovation solutions to safety by reducing the cost penalty if proposing ground-breaking technology, equipment and methodologies;
- facilitating a step change in industry approaches to safety significantly faster than would be possible via incremental changes in prescribed minimum standards;
- generating a legacy outcome whereby the inherent risks to road workers are permanently reduced;
- reward proactive safety culture; and
- drive further industry innovation in WHS.

Separating the economic investments in safety from the overall bid cost will encourage companies to put forward the safest controls, irrespective of the cost.

Away from direct costs, Waka Kotahi is looking at the balance between journey length for road users and the safety of road workers, which has been a challenge for the industry.

The most effective safety method would be to remove road workers from working in live traffic by closing lanes and roads.

Closing the road is not always an option, or may create unreasonable delays for road users, especially in rural areas where there's one entry/exit route.

By shifting that balance and prioritising safety over journey time, Waka Kotahi is cementing its commitment to reducing road worker risks.

With new equipment, trialling and testing new ways of working or tools have historically been a time-consuming practice, limiting the capacity for innovation.

Waka Kotahi is hoping that speeding up the innovation trialling and testing process means they can quickly identify effective or ineffective solutions.

This equipment innovation piece is also being explored in Australia and the UK.

## Innovative Devices

Event attendees were shown footage of the innovative devices in development or operation across Australia and the United Kingdom.

Janette highlighted innovations found in Australia:

### **Traffic Logistics Exclusive Traffic Light Boom**

*A transportable boom gate/traffic light replacing unsafe stop/slow methods.*

### MBT-1

*An integrated barrier, utility vehicle, and flat-bed trailer all-in-one for incident response and road & bridge construction & maintenance.*

### Intellicone Incursion Prevention & Warning System

*A digitally enabled device that sits on top of road cones, creating a digital layer of protection around a work zone to keep it safe.*

Dr Ryan Wood then provided an overview of the following innovative devices from the United Kingdom:

### Traffic Officer Service (TOS) Collision Warning System

*A radar tracks all vehicles and provides appropriate feedback to key stakeholders.*

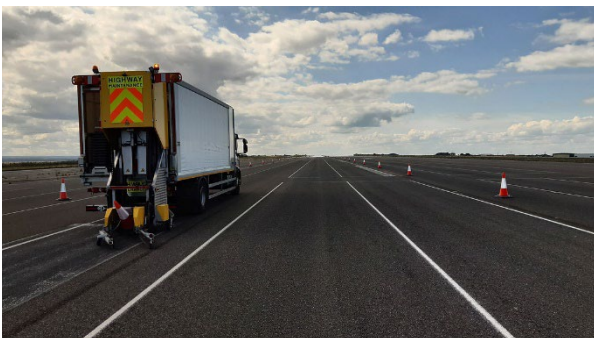
### Automated Cone Laying Machine (ACLM)

*A machine that deploys and collects cones removing the need for operators to manually lift them.*

### Deployable Mobile Carriageway Closure System and Technique

*A mobile device that can be deployed to close carriageways.*

The number of innovative devices seen across the countries is encouraging and shows the desire and capacity for change.



Facilitating the implementation of these devices across Australia and New Zealand is the Austroads Innovative Temporary Traffic Management Device and Solution Assessment (AITDSA) scheme.

**Chris Koniditsiotis** outlined that the scheme assesses and recommends the use of new and innovative devices and solutions in temporary traffic management.

It is a holistic end-to-end assessment process that takes into account multiple dimensions:

- what the innovative device/solution is intended to do;
- environment parameters;
- operational arrangements;
- training requirements;
- interface and updating the Austroads Guide to Temporary Traffic Management.

The AITDSA scheme, which has been active since 1 July 2022, is close to passing three new devices/solutions.

## Overcoming barriers to innovation

The panel discussion focussed on how to address barriers to implementing these innovations.

John characterised innovation as a mindset. Supporting innovation can be done by changing our thoughts around innovation.

Quite often, when we hear the word ‘innovation’, risk immediately comes to mind. Instead, we should be thinking about the opportunity to improve safety. We should be aiming to enable through innovation, rather than to stop.

Ryan then discussed the UK’s challenge to innovation, which is embedding them into daily operations.

There is no shortage of stimulating innovations to improve road worker safety, but ensuring these innovative ideas are commercially viable is the real test.

During innovation, businesses should increase their awareness of a product's commercial viability to strengthen its likelihood of long-term adoption.

Another way to address barriers to implementation is to make the approval process as easy as possible to encourage it.

Chris detailed a key aim of the AITDSA scheme, simplifying and harmonising the approval of the innovative device-to-operate process.

National harmonisation of device testing and trials across Australia and New Zealand eliminates duplicated efforts and encourages innovation.

John also noted that obtaining widespread support for a change is key to its success.

A granular bottom-up approach to change or enforcing a top-down approach cannot truly bring people on the change journey, limiting its effectiveness.

Janette addressed a key question surrounding innovation - who pays for it?

Collaborative funding of innovation is crucial as it encourages it and can improve the safety of all road workers, not just those employed by the company responsible for it.

## How you can help keep our road workers safe

Innovation is a key tool to address the risks road workers face, but more can be done by all road users.

Driver behaviour is a frequent cause of worksite crashes.

Speeding, distracted drivers and driving under the influence of drugs and alcohol all increase danger to road workers.

By avoiding these poor behaviours and complying with worksite signage, we can help prevent worksite crashes.

Signage around worksites keeps drivers and workers safe.

On-road construction can change road conditions and cause hazards, such as decreased shoulder widths or lane reductions. If signage is not followed, the probability of crashes increases.

A further way to help keep the people working on our roads safe is by starting a conversation.

Raising awareness of the dangers road workers face can lead to more drivers displaying positive driving behaviour around worksites.

## In summary

The success of the event showed a clear appetite and commitment to improve road worker safety in all jurisdictions.

Industry and government work together to achieve this in the RWSWG.

The RWSWG operates under four pillars:

- procurement;
- pre-qualification
  - people
  - organisations;
- industry image and minimum standard; and
- international collaboration.

A lot has been achieved - but there is still work to be done.

## Event outputs & next steps



An overview of the “Spotlight on Safety” event and the broad themes addressed by each speaker were circulated via [RA’s LinkedIn feed](#).