

# Victorian Government's Enrolment of Smart OBM

17 March 2023



# Today's moderators

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*We acknowledge the Australian Aboriginal and Torres Strait Islander peoples as the first inhabitants of the nation and the traditional custodians of the lands where we live, learn and work. We pay our respects to Elders past, present and emerging for they hold the memories, traditions, culture and hopes of Aboriginal and Torres Strait Islander peoples of Australia.*

*Austrroads acknowledges and respects the Treaty of Waitangi and Maori as the original people of New Zealand.*



# About Austroads & TCA

## Austroads is the collective of Australasian transport and traffic agencies

- Transport for NSW
- Department of Transport and Planning Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department for Infrastructure and Transport South Australia
- Department of State Growth Tasmania
- Department of Infrastructure, Planning and Logistics Northern Territory
- Transport Canberra and City Services Directorate Australian Capital Territory
- Department of Infrastructure, Transport, Regional Development, Communications and the Arts
- Australian Local Government Association
- Waka Kotahi NZ Transport Agency

## Transport Certification Australia (TCA) is a national organisation that provides assurance services relating to transport technologies and data to enable improved public purpose outcomes from road transport.

Key aspects of TCA include:

- An independent not-for-profit entity, with government oversight
- Administration of the National Telematics Framework, including its rules, specifications, agreements, digital infrastructure and other supporting services
- Assurance services that support but are appropriately separated from regulators, policy makers and enforcement activities, and underpin telematics applications and associated information and data services
- Advice that is based on evidence and a deep subject matter knowledge
- Trusted partner to both government and industry stakeholders, enabling a nationally consistent open market, with services covering all road vehicle types and associated digital infrastructure.

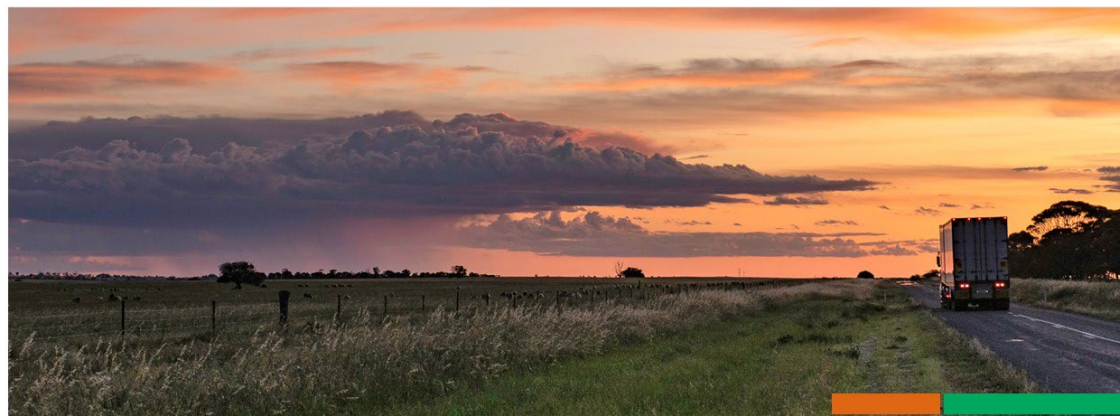


# Housekeeping



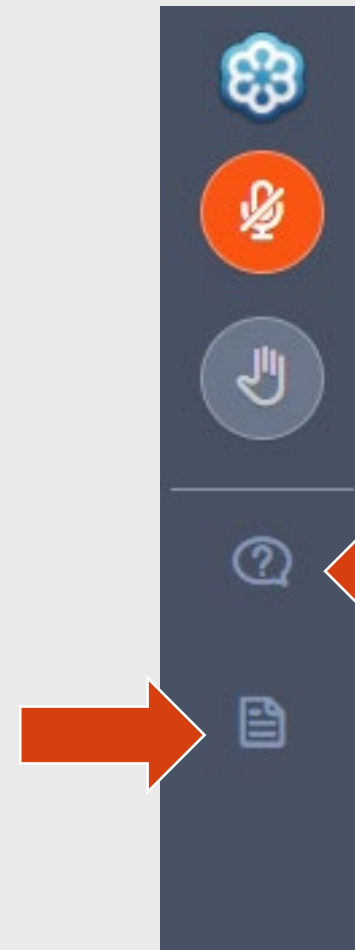
Presentation = 40 mins

Question time = 15 mins



**Victorian Government's Enrolment of Smart OBM**

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**Type questions here**  
Let us know the slide number your question relates to



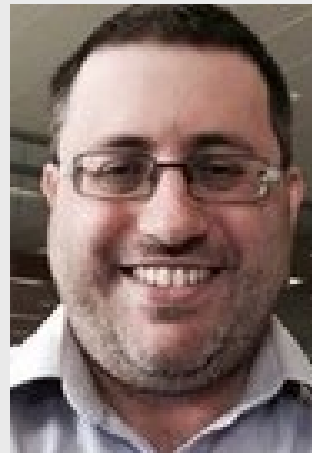
# Today's presenters and agenda

Topic	Presenter
Using the National Telematics Framework to improve road outcomes	Gavin Hill
Outlining the differences between IAP and TMA	
Introducing Smart OBM	
Victorian Government's Enrolment of Smart OBM	Ian Mond
Q & A	Both presenters



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# Using the National Telematics Framework to improve road outcomes

Gavin Hill

General Manager | Strategy and Delivery

TCA



# Harnessing the power of telematics

A significant number of commercial vehicles have some form of telematics ...

...resulting in unprecedented volumes of data being generated **every single day** on our road networks

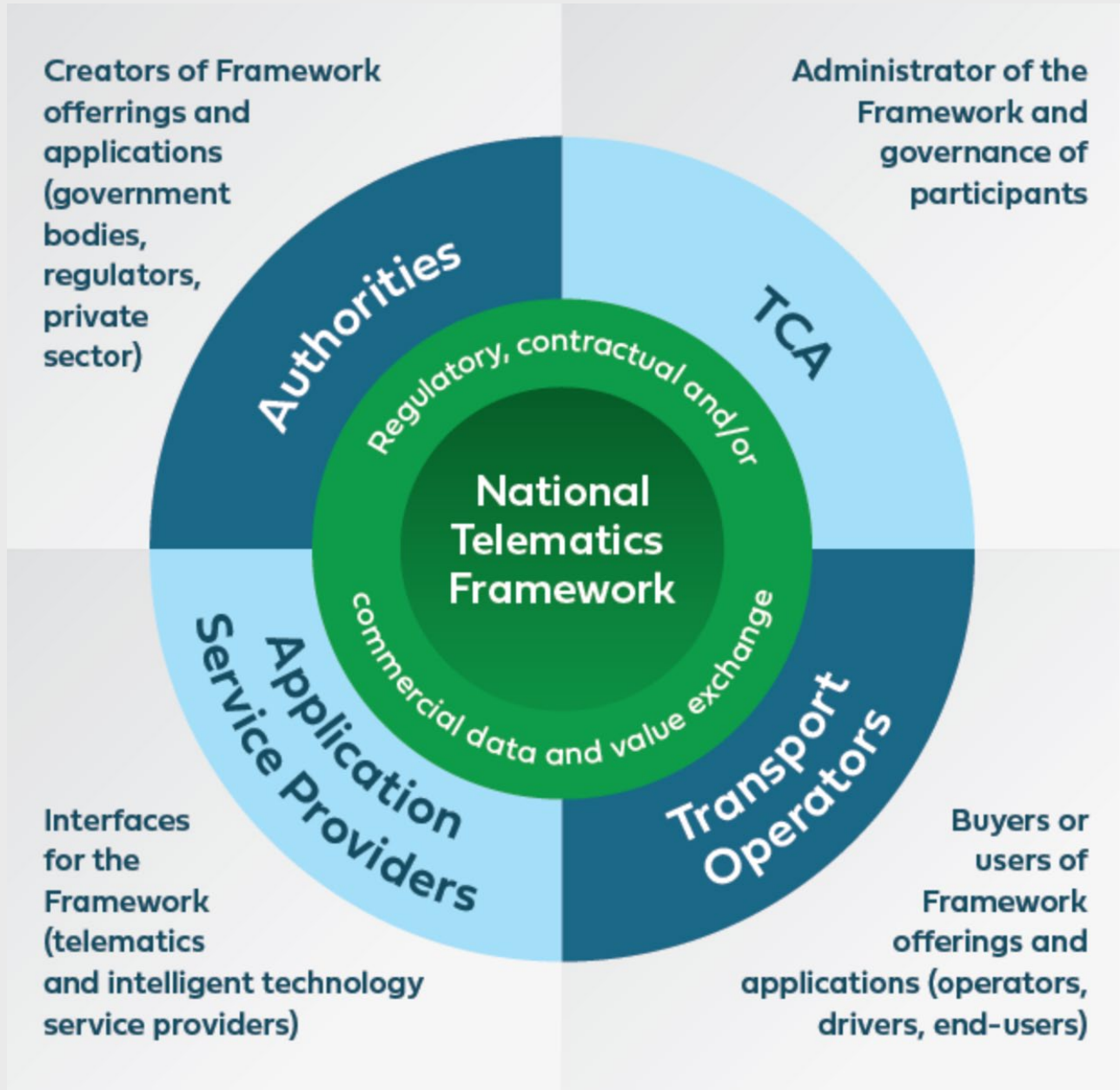


# Harnessing the power of telematics

...but telematics data **is not** readily available to governments, road agencies and regulators

This is known as the problem of 'dark data'

**The National Telematics Framework overcomes this problem**



UNDERSTANDING  
THE FRAMEWORK



COMMON  
FRAMEWORK  
COMPONENTS



DIFFERENT  
ASSURANCE  
LEVELS FOR  
APPLICATIONS



USE OF THE  
FRAMEWORK



# National Telematics Framework

- Multiple providers
- Multiple applications
- Multiple schemes
- *enabled through:*
  - Standards and specifications
  - Business rules
  - Legal agreements
  - Operational oversight
  - Privacy management
  - Cyber security

= Consumer choice

= Consumer protections and assurance

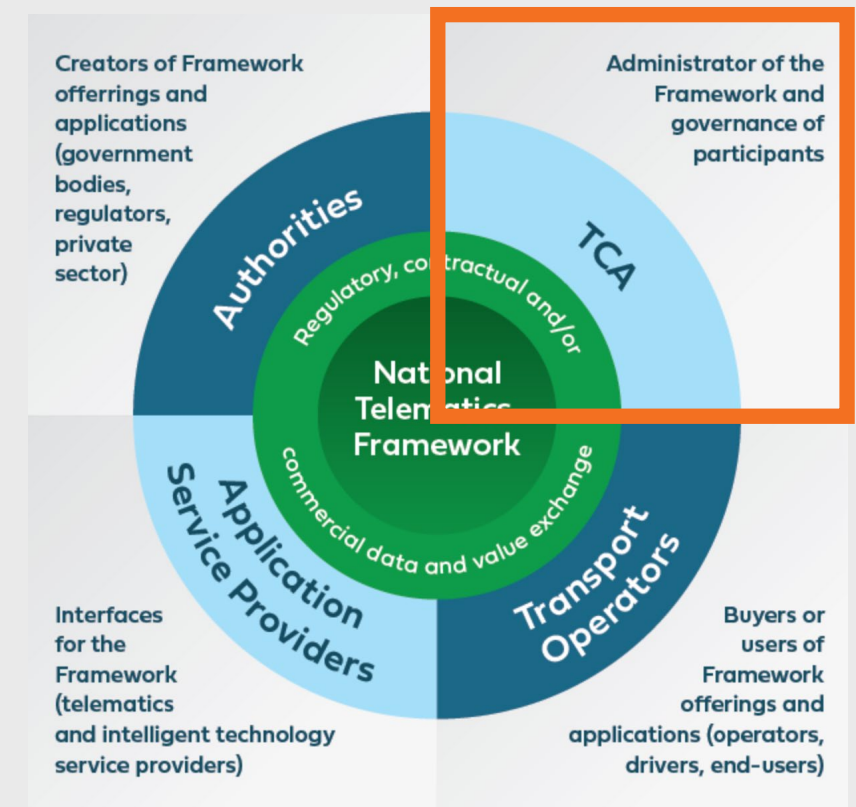
= Unlocks standardised data collection and reporting

# National Telematics Framework

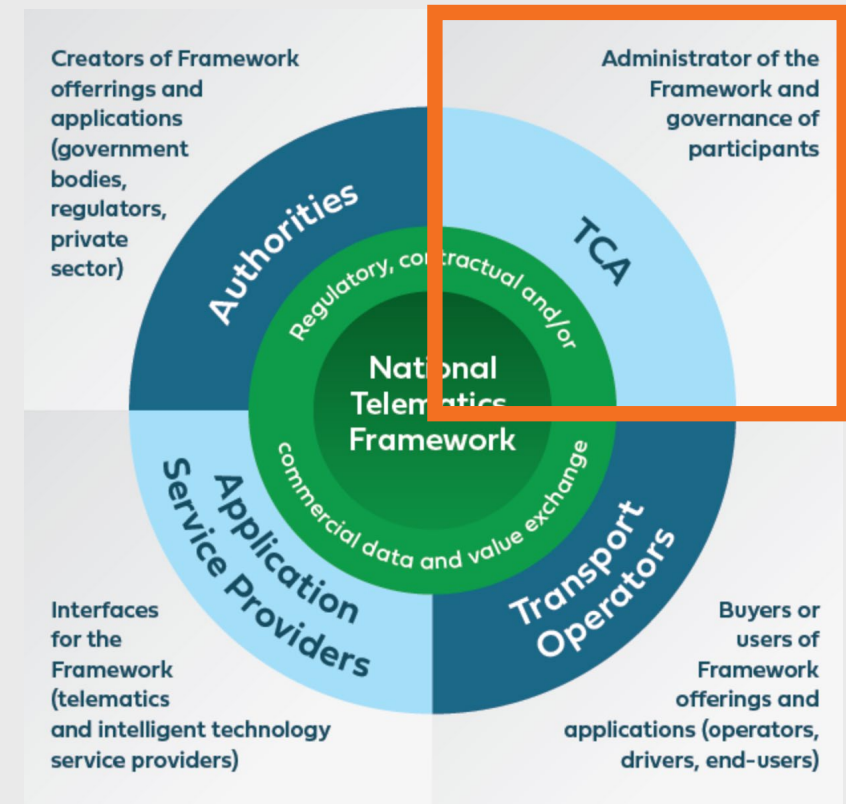
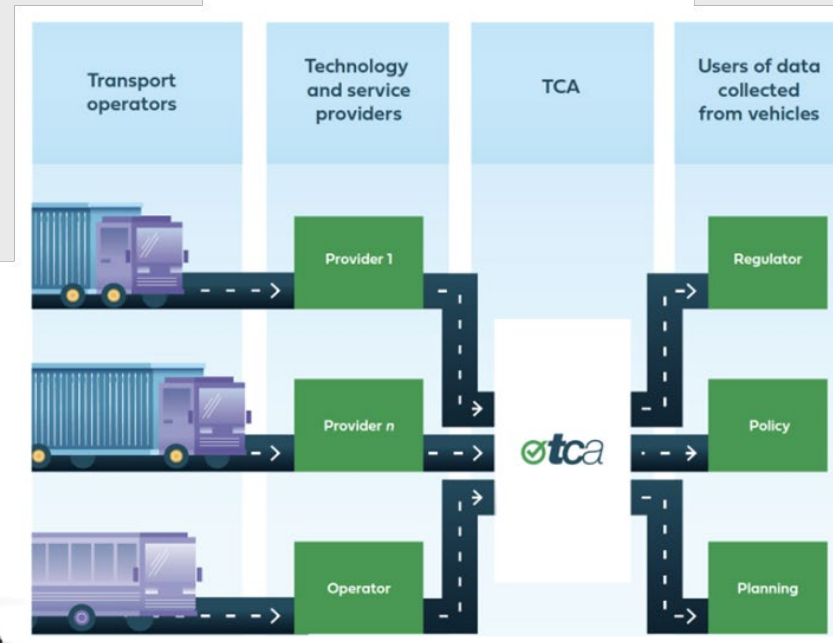
- Recognised as an international standard by the International Standards Organization (ISO)
- **ISO 15638**: Framework for cooperative telematics applications for regulated commercial freight vehicles (TARV)

# Interactions within the Framework

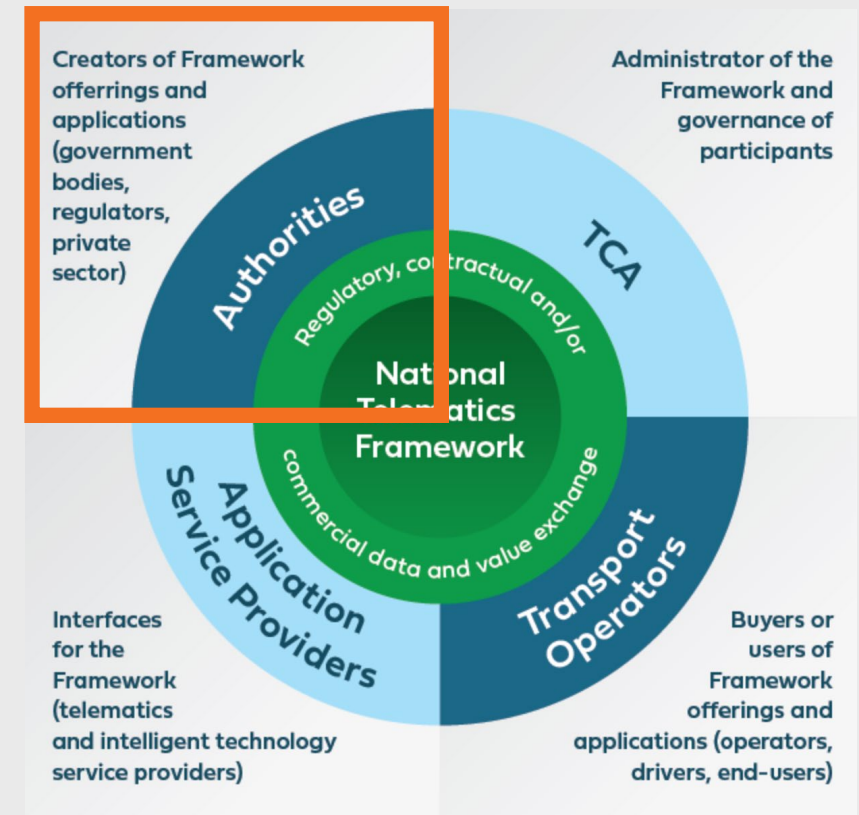
- We develop **performance-based** functional and technical **specifications**
- We **register and certify** Application Service Providers (depending on level of assurance)
- We **type-approve** hardware
- We **manage** the **interactions** of all parties in the Framework



# Interactions within the Framework



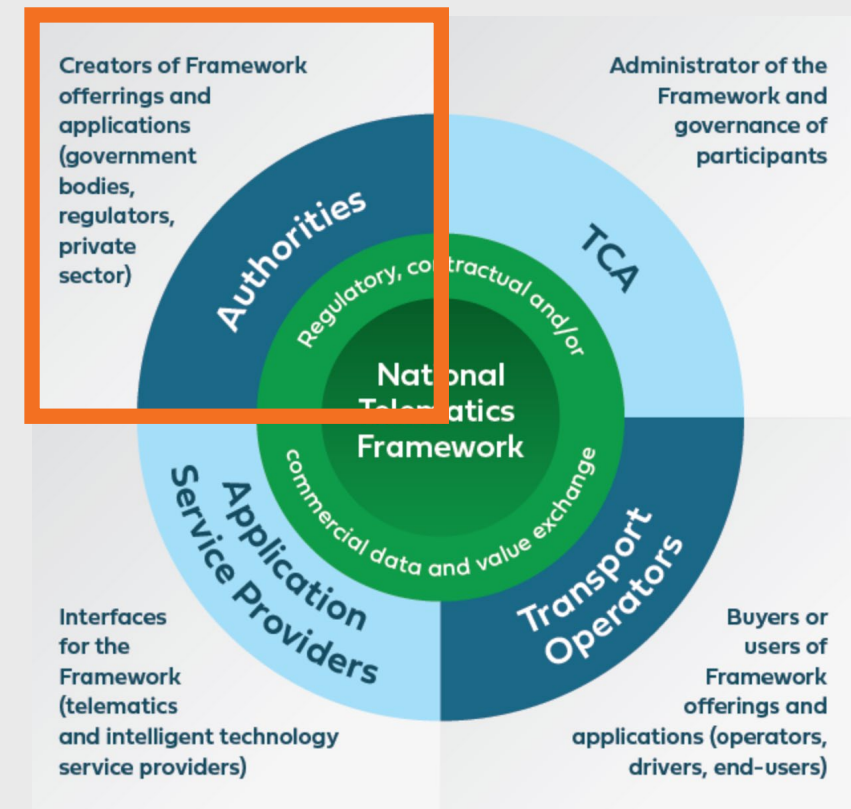
# Interactions within the Framework





# Interactions within the Framework

- Road agencies deploy productivity and safety schemes through the National Telematics Framework
- The Framework offers different tools for different jobs
- What we'll hear from Victoria shortly is how they're moving from IAP to TMA – so that they're using the right tool for the job



# Outlining the differences between IAP and TMA

## Introducing Smart OBM

Gavin Hill

General Manager | Strategy and Delivery

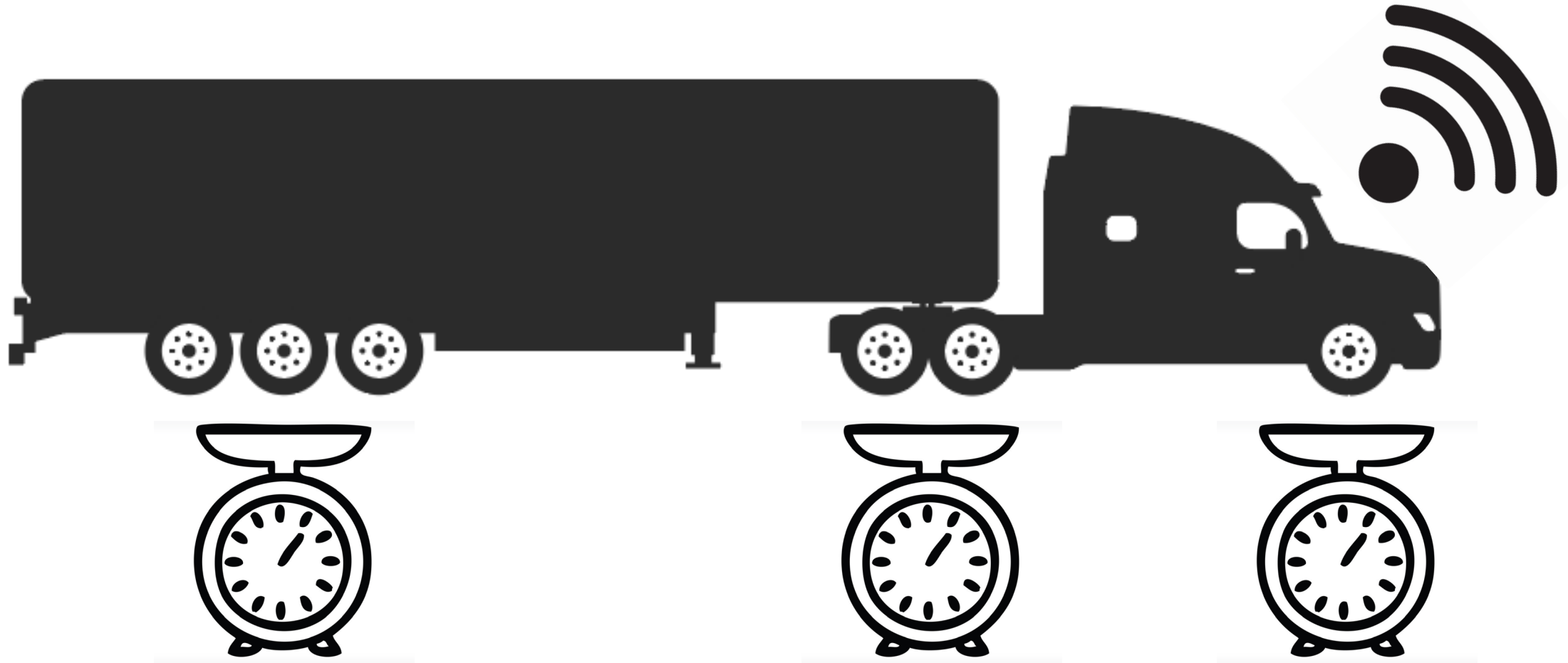
TCA



# Key differences between IAP and TMA

	Road Infrastructure Management (RIM)	Telematics Monitoring Application (TMA)	Intelligent Access Program (IAP)
Aggregated, de-identified data	✓	✓	✗
Identifiable vehicle data	✗	✓	✓
Evidentiary data for enforcement	✗	✗	✓
Cost (to transport operators)	←————→		
<b>Serving suggestions</b>	Use for <b>road use analysis/planning</b>	Use for <b>lower-risk</b> activities (education & regulatory improvement activities)	Use for <b>higher-risk</b> activities (direct compliance & enforcement)

# Smart OBM



# Smart OBM

Smart OBM systems are devices that use digital technology to collect and transmit mass data from vehicles in a reliable and standardised way

Different technologies can be used to deliver Smart OBM

Road agencies require Smart OBM for specific uses

All Smart OBM systems are type-approved by TCA

OBM may be referred to as:

- On-board scales
- On-board weighing
- Air pressure sensors
- Electronic Braking System (EBS)

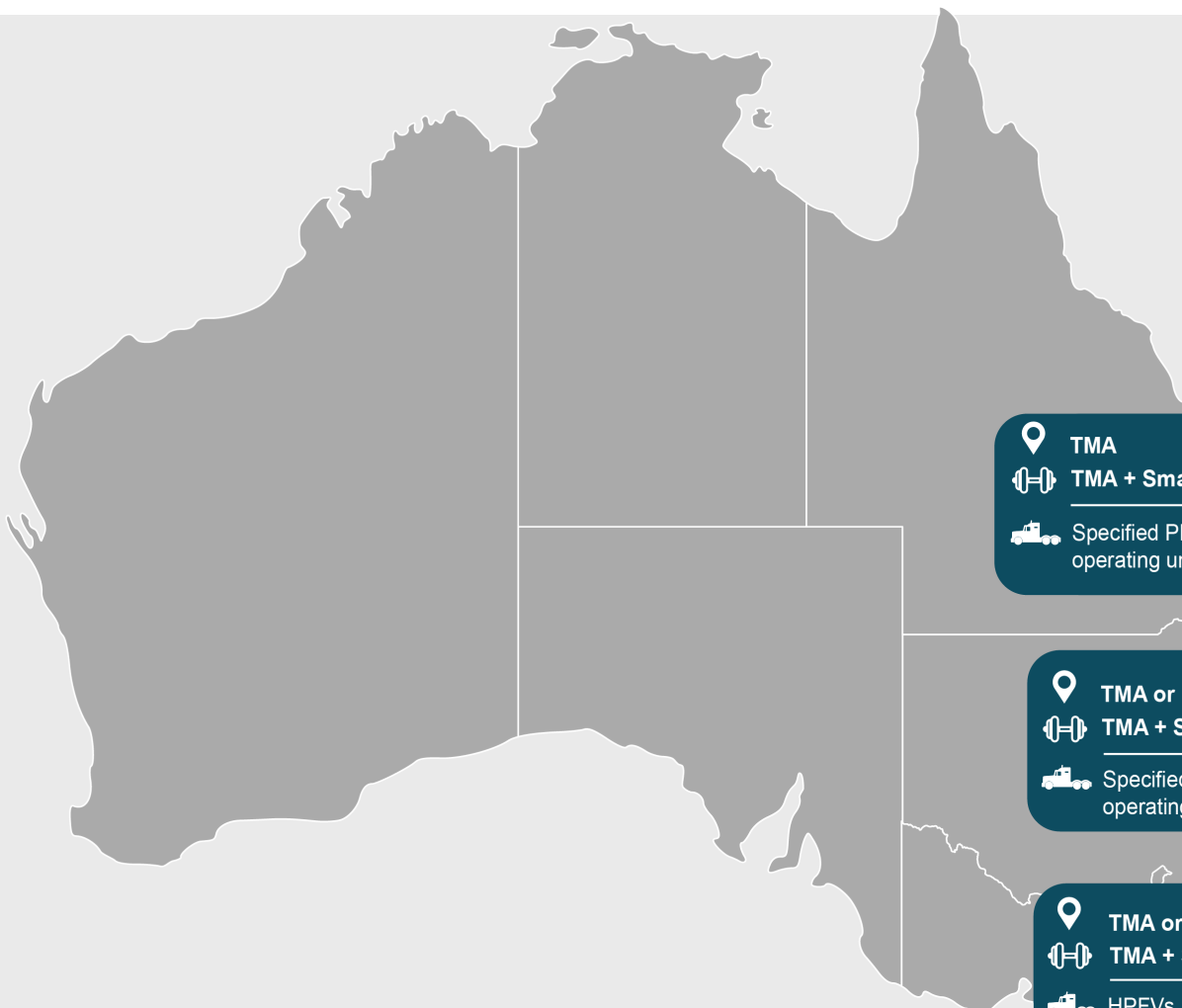
# Smart OBM



INTEGRATED  
VEHICLE  
SOLUTIONS

 **tca** | Type-Approved™  
Smart OBM System (Category B)





**QLD**

- TMA
- TMA + Smart OBM
- Specified PBS combinations operating under a specific scheme

Required for all new eligible vehicles from 1 December 2022  
Transition for affected existing vehicles required by 1 June 2024

**NSW**

- TMA or IAP
- TMA + Smart OBM
- Specified PBS combinations operating under a specific scheme

Required for all affected vehicles by 1 June 2024

**VIC**

- TMA or IAP
- TMA + Smart OBM
- HPFVs, as defined by Victoria, operating under a specific scheme

Required for all affected vehicles by 30 June 2023

Currently required

**TAS**

- TMA
- TMA + Smart OBM
- Specified PBS combinations operating under a specific scheme

**KEY**

- Required location monitoring application
- Required mass monitoring application
- Affected vehicles these requirements apply to

Note: Please refer to individual jurisdictional guidelines when checking requirements for your specific vehicle and scheme enrolment.

# Victorian Government's Enrolment of Smart OBM

Ian Mond

Manager Land Freight Systems

Freight Victoria

Department of Transport and Planning Victoria





# A potted history of Smart OBM in Victoria

## Victoria's HPFV Network for 73t Quad-Tri and 77.5t Quad-Quad B-Doubles



### What is the difference between current B-Doubles and HPFVs?

B-Doubles are up to 26 metres long and have a Gross Combination Mass (GCM) of 68.5 tonne. In Victoria, a High Productivity Freight Vehicle (HPFV) is a heavy vehicle combination that exceeds 26 metres and/or has a GCM in excess of 68.5 tonne.

### What roads can be accessed by HPFVs?

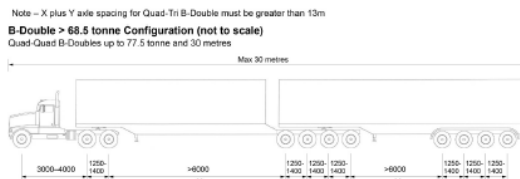
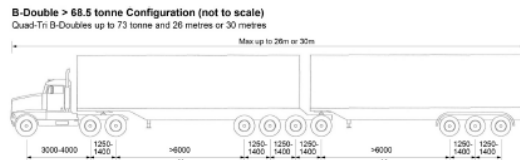
The Victorian HPFV network is being developed with a focus on providing access to primary freight routes connecting with Victorian Ports, interstate links and key industries.

VicRoads is progressively assessing more freight routes to continue to expand the HPFV network. A map and details of Victoria's HPFV network are available on VicRoads website via <https://www.vicroads.vic.gov.au/business-and-industry/heavy-vehicle-industry/heavy-vehicle-map-networks-in-victoria>

### Why is the B-Double HPFV network different to Victoria's current B-Double network?

- Steer Axle – 6.5 tonnes<sup>1</sup>
- Drive Axle or Tandem Axle Group – 17.0 tonnes
- Tri-Axle Group – 22.5 tonnes
- Quad-Axle Group – 27.0 tonnes
- Overall – 77.5 tonnes

In relation to axle spacings, the combination must meet the following minimum and maximum axle spacings to safely cross all the structures on the network (the figures are in millimetres):<sup>2</sup>



Note – X plus Y axle spacing for Quad-Tri B-Double must be greater than 13m



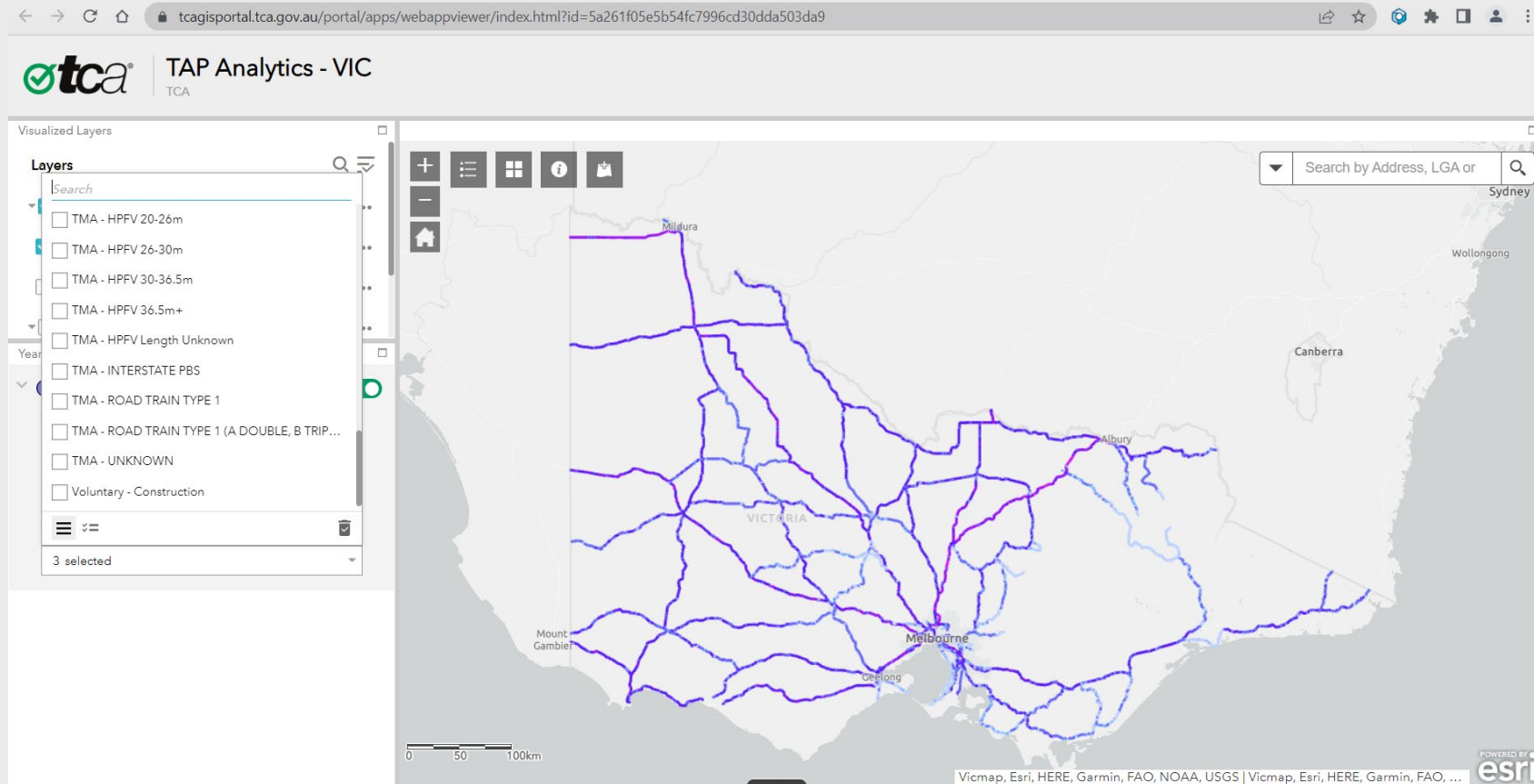
<sup>3</sup> While fitment of an approved OBM system has been specified as an access condition, it is recognised that such systems are not currently available. Accordingly, this requirement is waived until such time as when advice is provided by VicRoads that an OBM system must be fitted to the combination in accordance with the specifications and standards set by Transport Certification Australia.



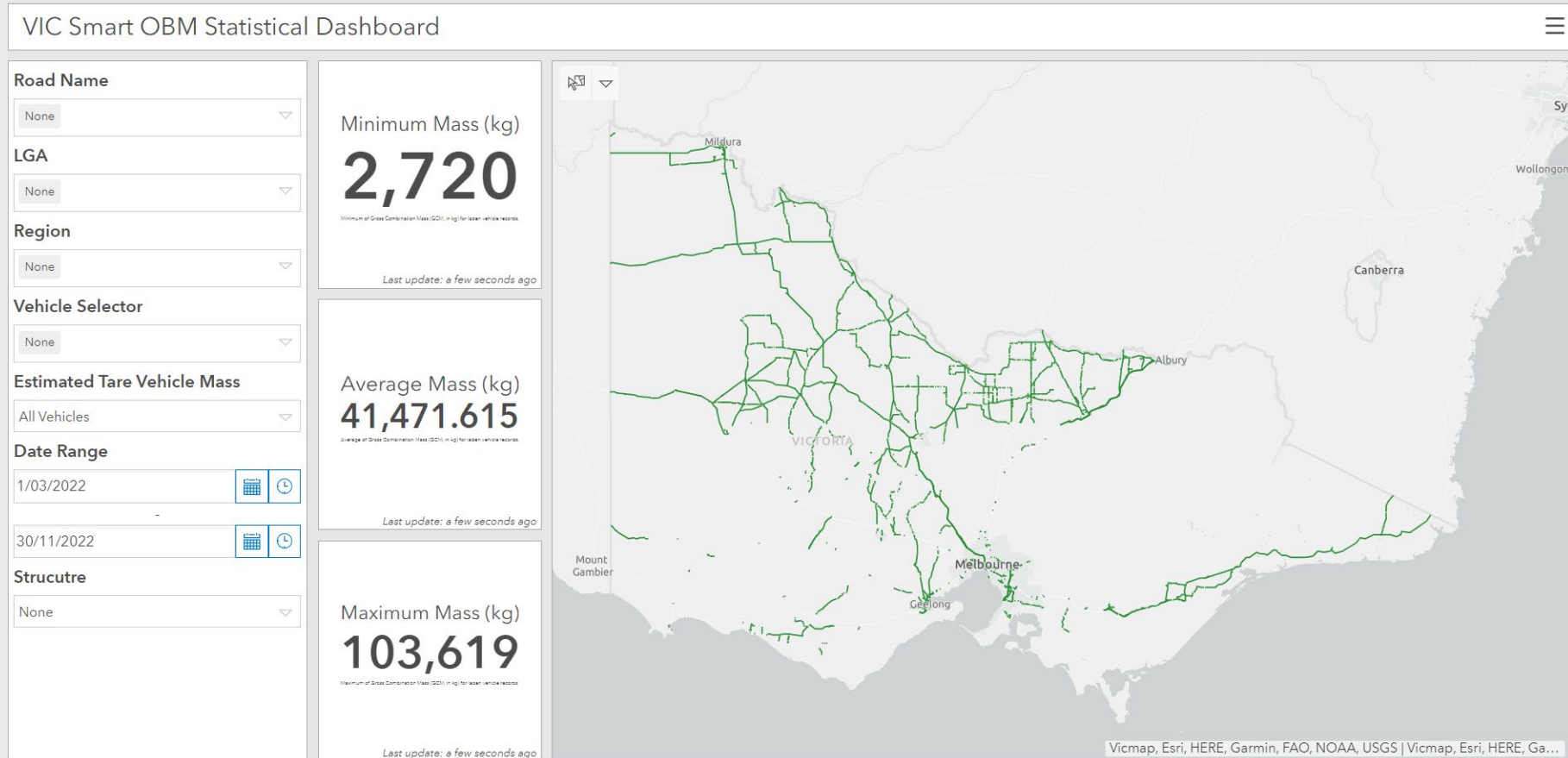
# Vehicles that require Smart OBM in Victoria

- A multi-combination vehicle that exceeds 68.5 tonnes
- A single articulated vehicle that exceeds 46.0 tonnes
- A non-standard vehicle (i.e. split axles) that exceeds 43.5 tonnes

# What are the benefits?



# What are the benefits?



# What are the benefits?

The screenshot shows a GIS application interface. On the left, a 'Layer List' panel is visible with the following layers checked: 'VIC Smart OBM - Road Manager', 'Reference', 'Structures', and 'Local Government Areas'. The main map area displays a street network in Ballarat City, with a specific road segment highlighted in red. A pop-up window titled '(2 of 19) Road Segment Records: Western Freeway' is open, displaying the following data:

Road PID	VIC11630323
Road Name	Western Freeway
LGA Name	VIC Ballarat City
Road Type	National or State Highway
Position Recorded At	8/18/2022, 1:31 AM
Mass Recorded At	8/18/2022, 1:29 AM
Vehicle Type	Road Train Type 1
Speed	103.07923126
Total Mass	39,118
Total MSU	2
MSU 2 Mass	21,500

The pop-up window also includes a 'Zoom to' link and a menu icon. The map interface includes a search bar at the top right with the text 'Search by Address, LGA or' and a search icon. The bottom of the map shows the text 'Esri Community Maps Contributors, Vicmap, Geoscape, Esri, HERE, Garmin, F...' and the Esri logo.

# What next?

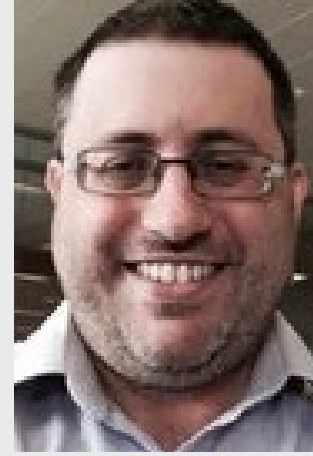
- Smart OBM will need to be fitted to all eligible vehicles by 30 June 2023
- If you have not fitted Smart OBM by then, the mass on your vehicles will be reduced to 68.5 tonnes for a multi-combination or 46.0 tonnes for a single articulated vehicle

# Questions?



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# Upcoming Austroads webinars

Topic	Date
Asphalt Laboratory Fatigue Relationships	22 March
Austroads National Harmonisation of Temporary Traffic Management Practice – Update	27 April
Austroads Project Pipeline 2023-24	25 May
Overview of the Changes to the Guide to Road Design Part 4 Series	1 June
Using the Updated Guide to Road Design Parts 4 and 4A	7 June
Learner Approved Motorcycle Scheme Update	15 June
Using the Updated Guide To Road Design Parts 4B and 4C	27 June
New Edition of the Design Vehicles and Turning Path Templates Guide	5 July

Register at [austroads.com.au/webinars-and-events](https://austroads.com.au/webinars-and-events)





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