



What's New in Telematics?

Forums for the Transport Industry





Acknowledgement of Country

TCA and HVIA 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.

TCA and HVIA acknowledge and respect the Treaty of Waitangi and Maori as the original people of New Zealand.



Agenda

Welcome

Industry Update (Adam Ritzinger/Greg Forbes, HVIA)

Smart OBM's national roll-out, deadlines and conditions for each states (John Gordon, TCA)

Telematics: Myths & facts (Gavin Hill, TCA)

Data science informing safety (Wayne Dale, NHVR)

3G shutdown and what that means for the industry (David McIntosh, Telstra)

Q&A



Presenters:

Transport Certification Australia

Gavin Hill

General Manager
Strategy and Delivery

Heavy Vehicle Industry Australia

Greg Forbes

National Manager
Policy and Government

John Gordon

Manager
Strategic Delivery

Adam Ritzinger

Chief Technical Officer

Telstra

David McIntosh

National Sales Specialists
IoT - Telematics

National Heavy Vehicle Regulator

Wayne Dale

Product Manager
Predictive Analytics

HVIA presenters



Greg Forbes
Manager – Policy and
Government



Adam Ritzinger
Chief Technical Officer



HEAVY VEHICLE
INDUSTRY AUSTRALIA



Who has CoR responsibilities?

What does the law say?

Primary safety duty

Section 26C

Ensure the safety of transport activities

Do whatever is reasonably practicable

Section 26C of the HVNL imposes a primary safety duty on each party in the chain to **ensure**, so far as is **reasonably practicable**, the safety of the party's transport activities.



**HEAVY VEHICLE
INDUSTRY AUSTRALIA**

HVNL charges are maturing

Previous Offences – Fatigue, speed, mass, dimension, loading

Parties – Consignors, drivers, staff

Now Offences – Training, policies, procedures, communication

Parties – Consignees, executives



Courtesy: OwnerDriver.com.au



HEAVY VEHICLE
INDUSTRY AUSTRALIA

What is the regulator saying?

National Heavy Vehicle Regulator

Accessibility tools Road managers NHVR Portal

Safety, Accreditation & Compliance Road Access Law & Policies News & Events About Us Contact Us

I'm looking for...

Home > Safety, accreditation & compliance > Chain of Responsibility > Regulatory Advice > Regulatory Advice - Heavy vehicle safety technology and telematics

Save as PDF Print

Regulatory Advice - Heavy vehicle safety technology and telematics

Note: This information is intended as general guidance only and does not constitute legal advice. We encourage you to obtain independent advice about your legal obligations. If you have any feedback on the information provided, please contact us at info@nhvr.gov.au

This regulatory advice provides guidance to parties in the Chain of Responsibility (CoR) on best practice for using safety technologies and telematics to improve the safety of their transport activities and meet primary duty obligations under the Heavy Vehicle National Law (HVNL).

Who is this advice for?


This regulatory advice provides guidance for:

- [CoR parties](#), especially operators and employers.

What are my legal obligations?

Parties in the Chain of Responsibility

Parties in the CoR have a duty under the Heavy Vehicle National Law to minimise the risk of their transport activities.



**HEAVY VEHICLE
INDUSTRY AUSTRALIA**

What's New in Telematics?

Smart OBM's national roll-out,
deadlines and conditions for each
state

John Gordon

Manager
Strategic Delivery
Transport Certification Australia



Who we are

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.

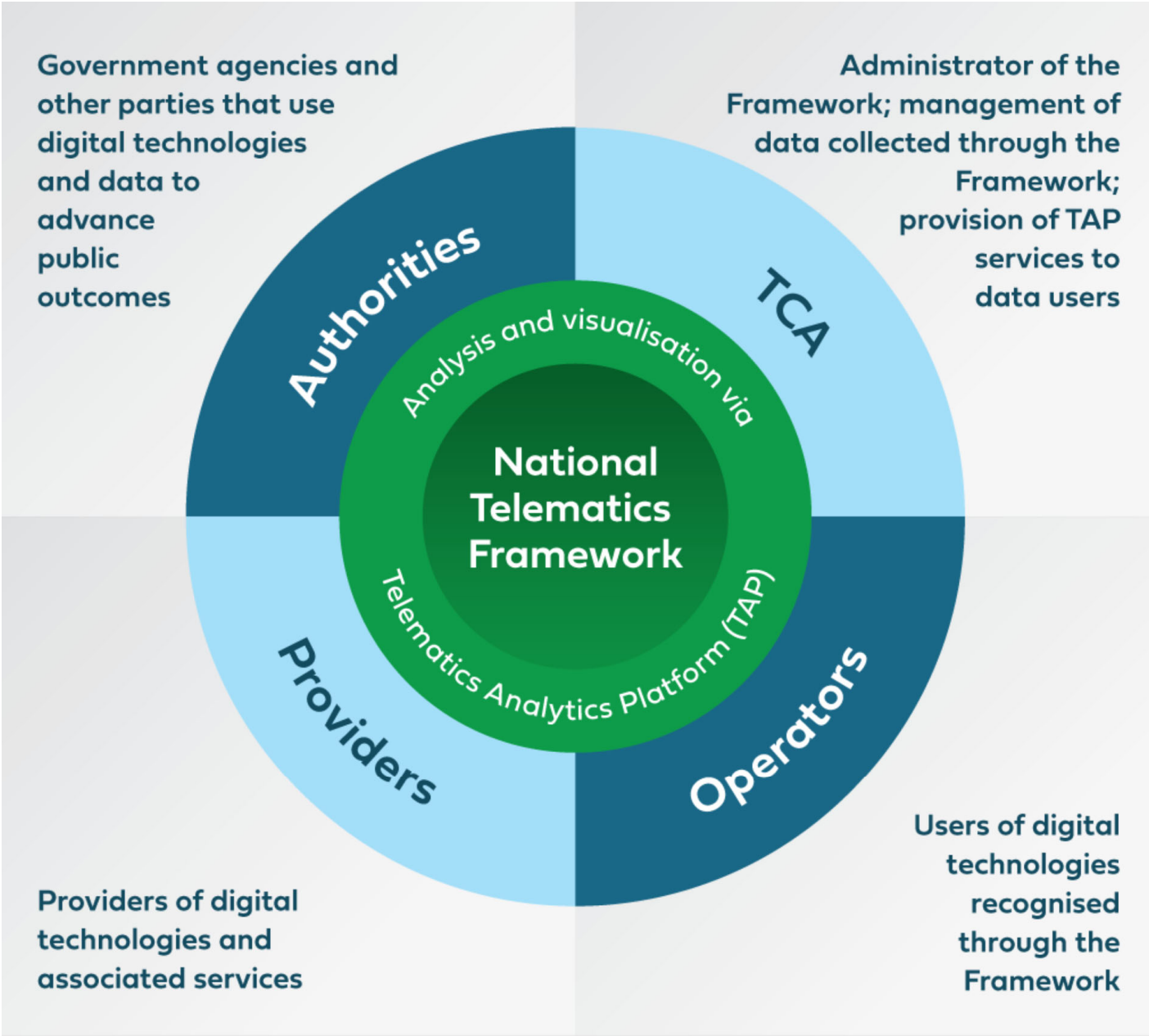
Priority outcome areas enabled by TCA services include improved road safety, transport efficiency, freight productivity, asset management and sustainability.



Key aspects of TCA include the following:

- An independent not-for-profit entity, with government oversight and ownership through Austroads
- 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.





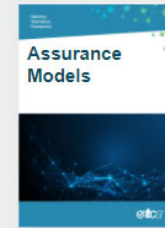
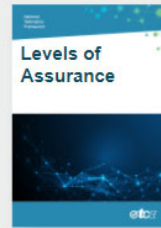
UNDERSTANDING
THE FRAMEWORK



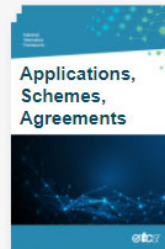
COMMON
FRAMEWORK
COMPONENTS

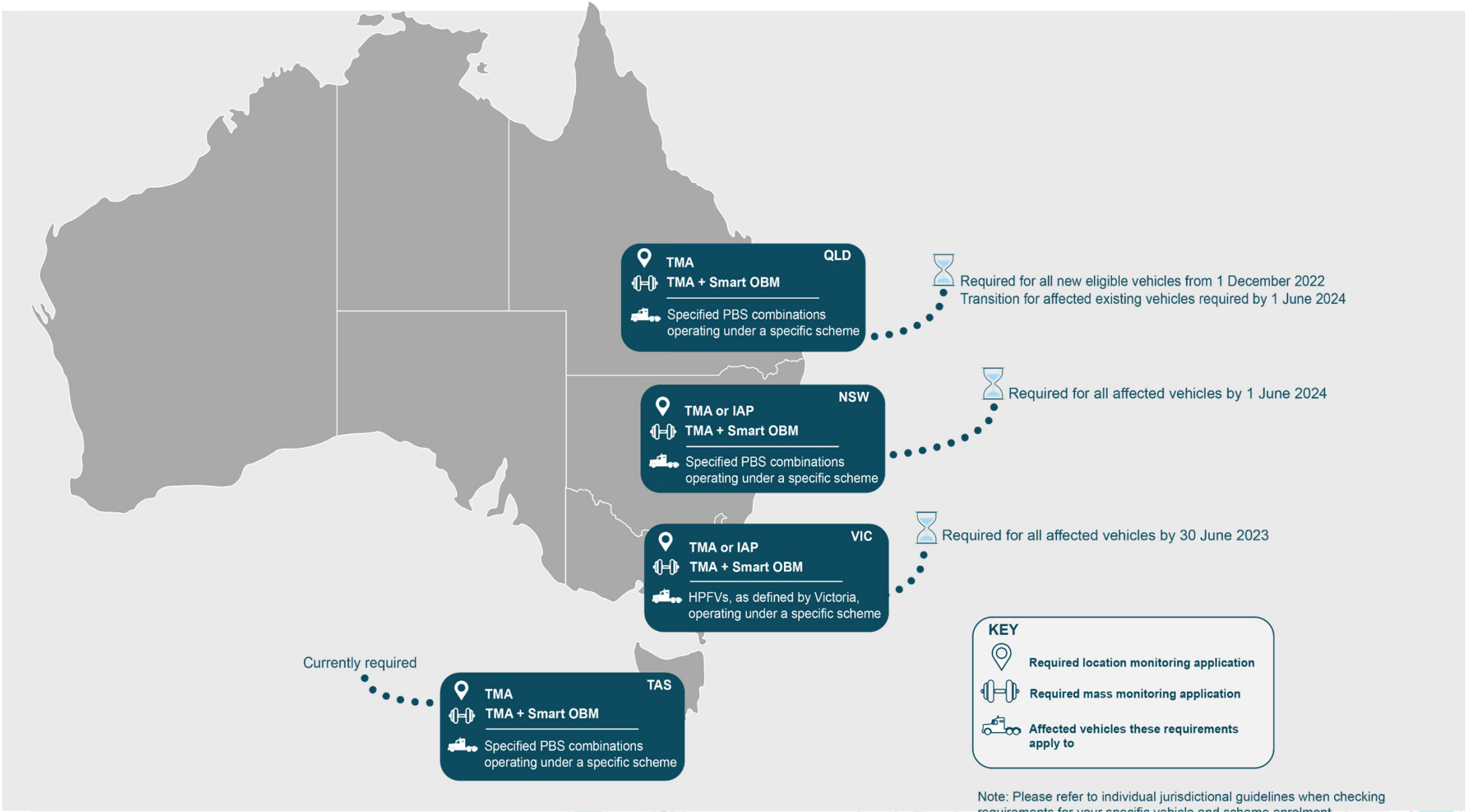


DIFFERENT
ASSURANCE
LEVELS FOR
APPLICATIONS



USE OF THE
FRAMEWORK





What's New in Telematics?

Telematics Myths & Facts

Gavin Hill

General Manager

Strategy and Delivery

Transport Certification Australia



Mythbusting time!



General myths and facts



Mythbusting



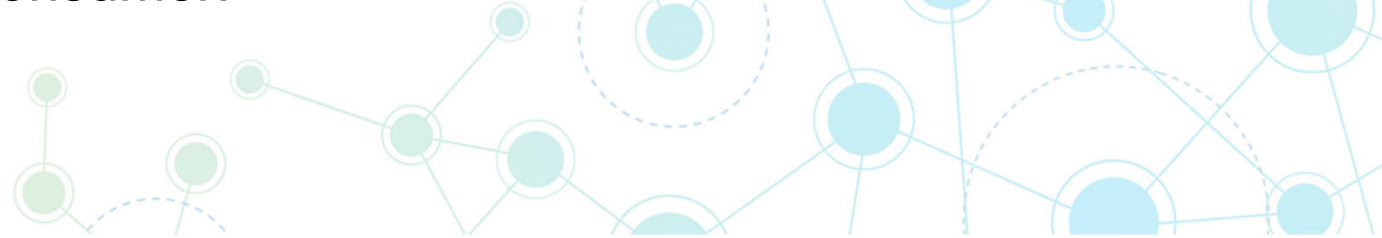
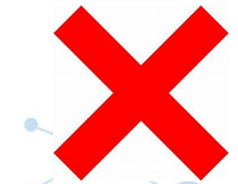
Myth #1:

All telematics devices are created equal

Fact #1:

Oils ain't oils

You need to be an informed consumer!



Mythbusting



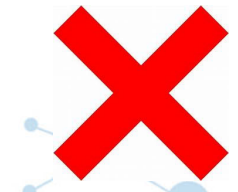
Myth #2:

TCA can only benefit me if I want to participate in regulatory applications and schemes

Fact #2:

TCA's specifications can be used to help compare telematics devices and OBM systems

TCA type-approval is often used as a requirement in procurement activities





BLACKBOX
CONTROL

NETSTAR
A SUBSIDIARY OF ALTRON

tca | Certified ™

tca | Certified ™

 **Teletrac**
Navman

inseego

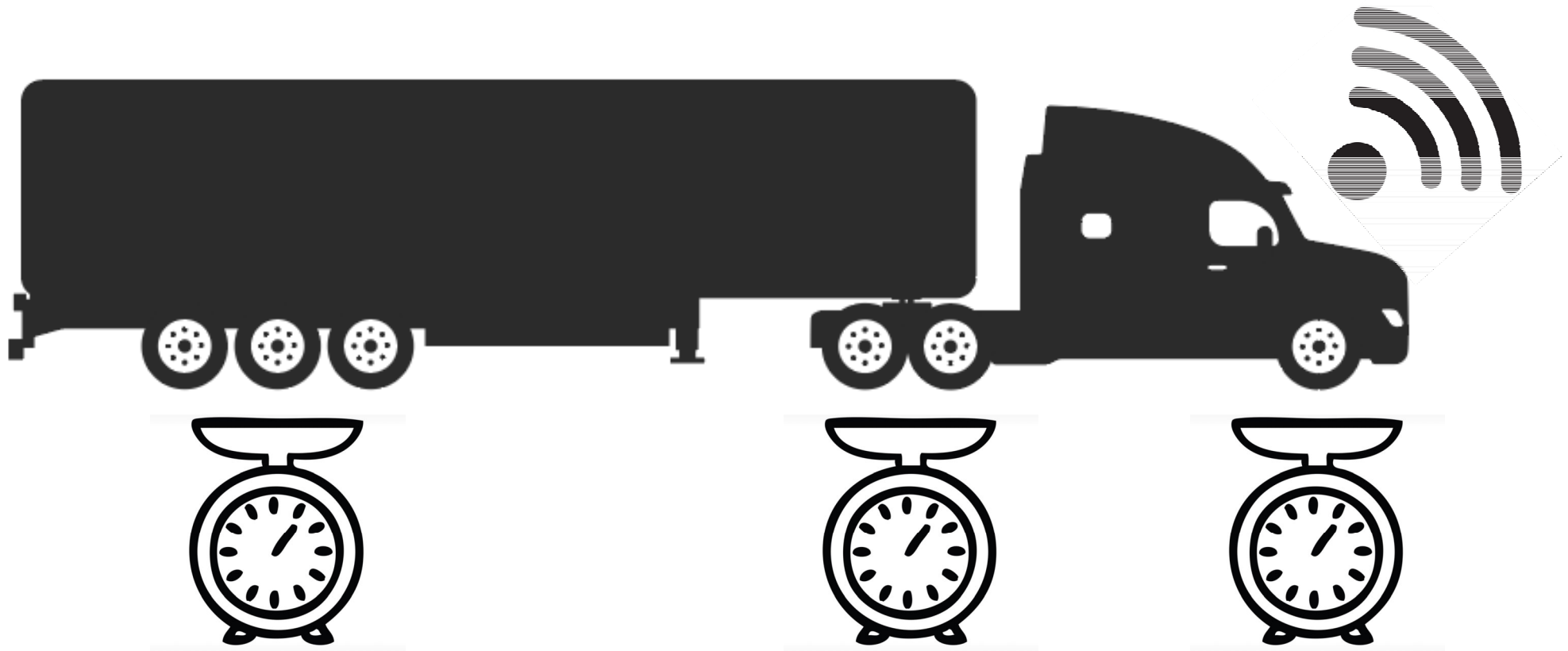
MTData
A Telstra Company

V-DAQ

Smart OBM



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

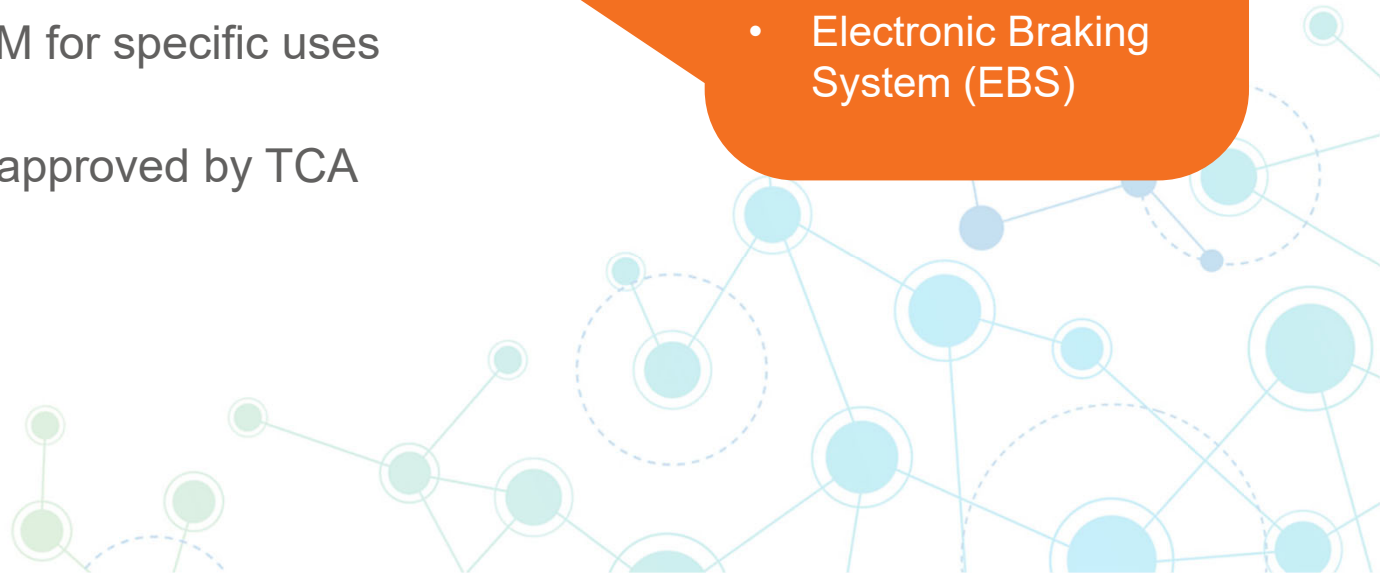
Different technologies can be used to deliver Smart OBM

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)



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



INTEGRATED
VEHICLE
SOLUTIONS



Mythbusting

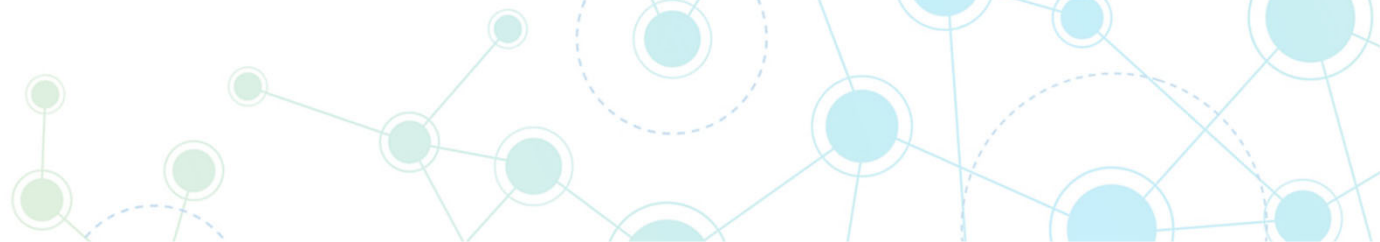


Myth #3:

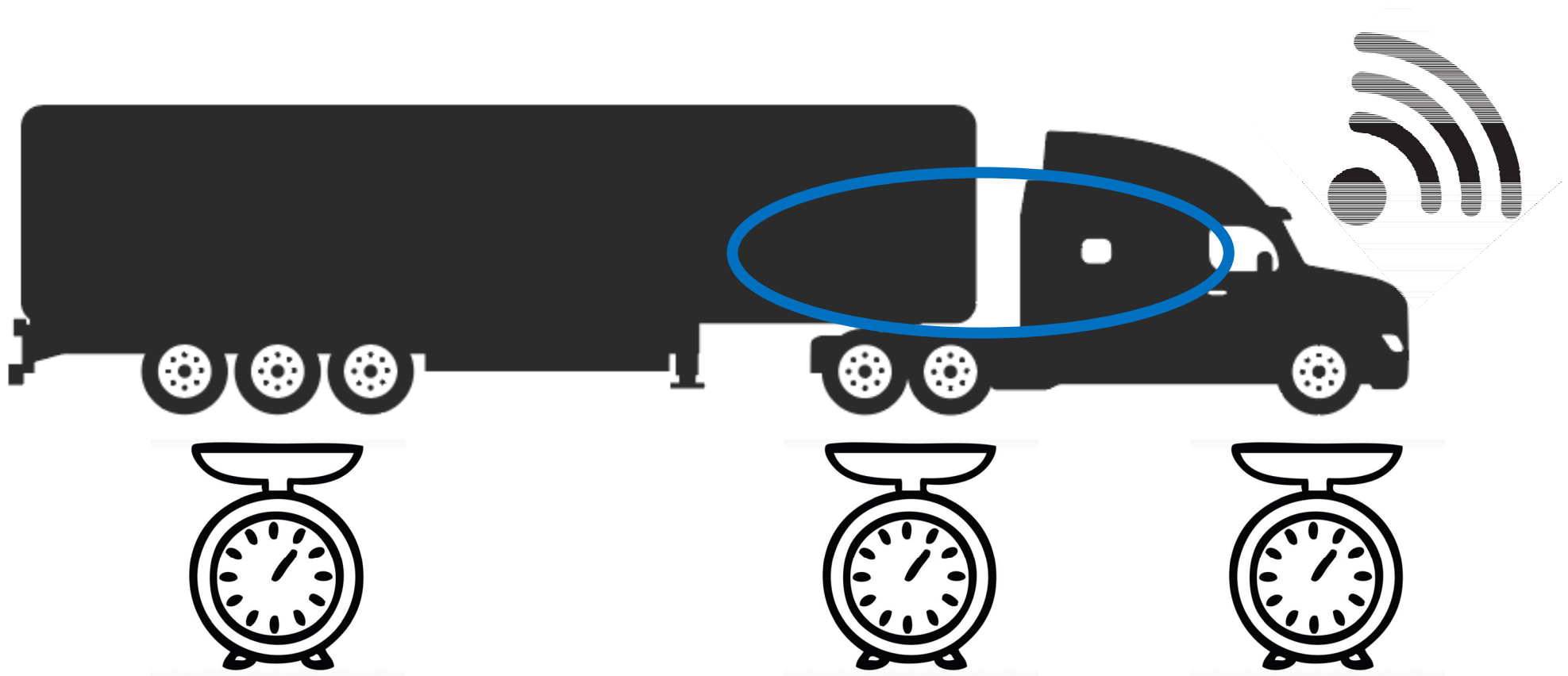
All I need is Smart OBM to comply with regulatory requirements

Fact #3:

Smart OBM systems need to be **“paired”** with a certified service provider



Smart OBM

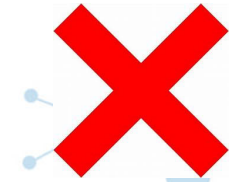


Mythbusting



Myth #4:

Smart OBM systems can be paired with any certified provider
















Fact #4:

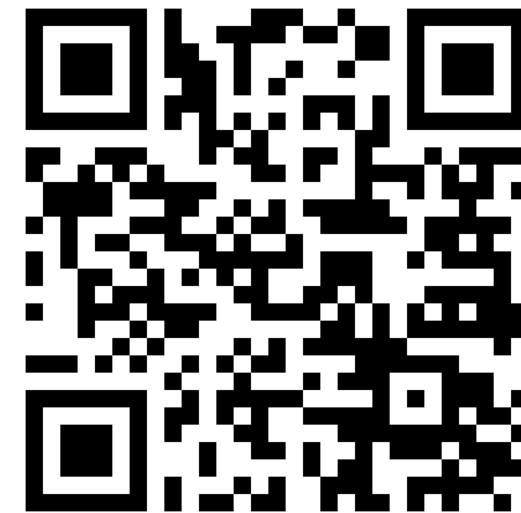
Not all Smart OBM systems are paired with certified service providers



Check TCA's website!



Application Service Provider ↓	Smart OBM system supplier → Type approved telematics devices provided by ASPs compatible with Smart OBM systems↓	Method of connection	Airtec Corporation 	E-max Aust 	Knorr-Bremse 	Integrated Vehicle Solutions 	Loadman Australia 	McColl's Transport Operations 	Right Weigh 	Tramanco 
Blackbox Control 	<ul style="list-style-type: none"> 8006IAPC-HL 	Cable	X	X	X	X	✓	X	X	X
MTData 	<ul style="list-style-type: none"> 7051-4G-4709 series 7051-4109 series 7050-Internal Sat & WiFi-4G-4705 series 7050-4G-4604 series 7050-Internal Sat-4G-4605 series 7050-Internal Wi-Fi-4G-4704 series 7050-4102 series 7050-Internal Sat-4105 	Cable	✓	✓	✓	✓	✓	X	X	✓
Netstar 	<ul style="list-style-type: none"> TRK2004G TRK2004 	Cable	X	✓	X	X	✓	✓	X	✓
Teletrac Navman 	<ul style="list-style-type: none"> VT102 VT101 	Cable	✓	✓	✓	X	✓	X	✓	✓
V-DAQ 	<ul style="list-style-type: none"> TAG3036 	Wireless	✓	✓	X	X	✓	X	✓	✓



Scan the QR code to find the table on TCA's website.



Data Science Informing Safety

Wayne Dale
Product Manager Predictive Analytics

In the beginning...



Five key risk profiles



01
Operators



02
Vehicles



03
Drivers



04
Supply Chain



05
Infrastructure

NHVR: The journey continues

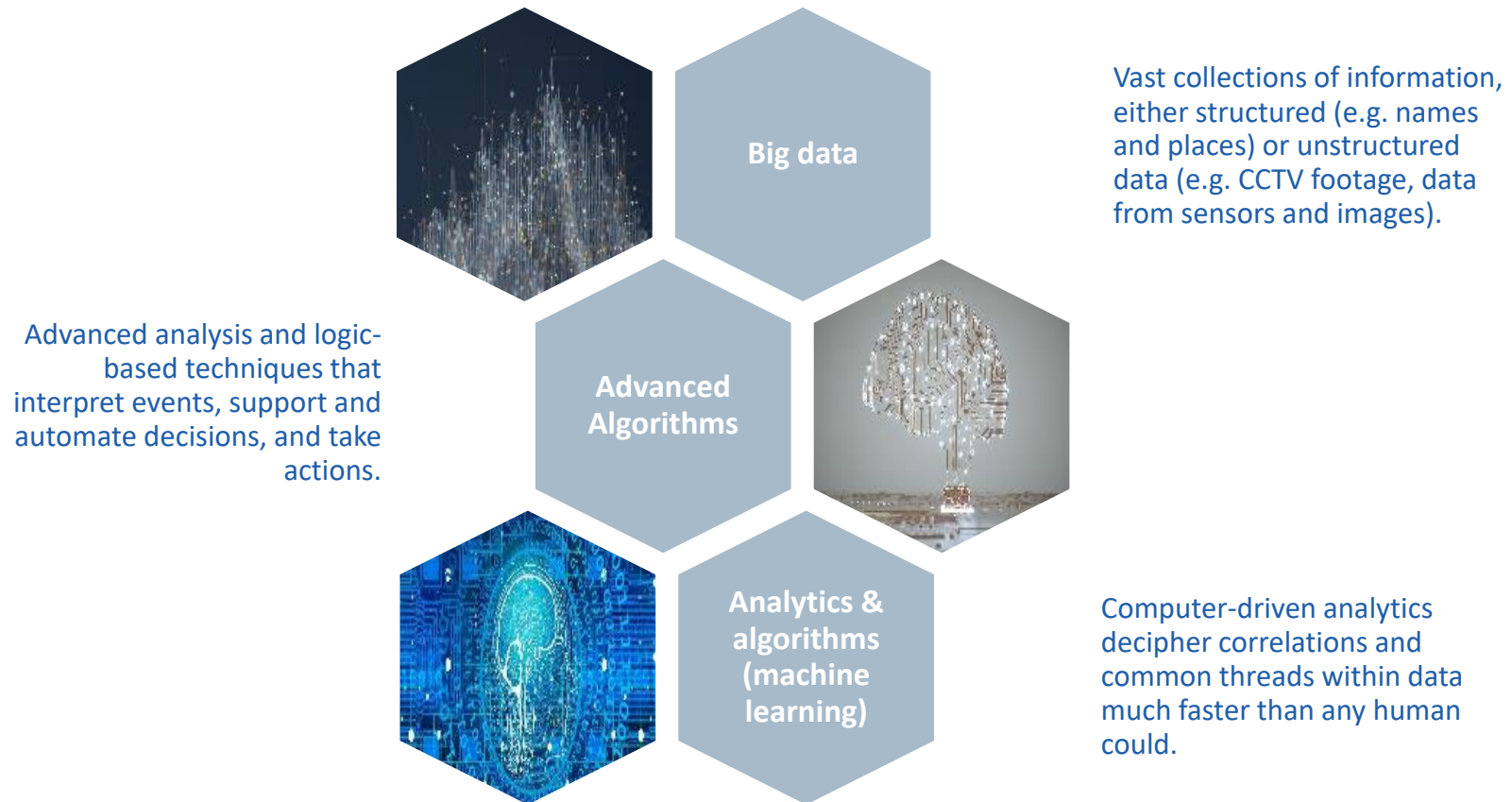
Data access and 'smart' utilisation of existing data allows for insights well beyond compliance.

As a modern regulator, the NHVR is about understanding how the industry performs and the emerging issues affecting the industry.

Using data science, we can focus the data towards building insights into:



Data Science = Combining tactics and technology is necessary for improved decision-making, turning data into insights and intelligence.



Predictive analytics – telematics data



Intertwining data sources to assist in understanding Heavy Vehicle journey patterns.

- Detection Information
- Intercepts
- Road Asset Data
- Road Conditions
- Permits
- Incidents
- Road Network restrictions

Predictive analytics – journey projection



Through data science, we are experimenting with understanding heavy vehicle journeys.

Utilising non-identifiable data from multiple sources, we are trialling the projection of network tracing of journeys.

This allows the NHVR to build a profile of road network usage and travel patterns.

This could provide insights into fatigue policy and rest area availability.

Predictive analytics – rest area utilisation



Experimentation of utilising non-identifiable data to identify locations where rest breaks are being taken.

Based on intertwining of various data sources we are trialling the ability to predict location and duration of a heavy vehicle rest break.

Down stream analysis may then build a picture of where rest breaks are taken, the volume of vehicles at a time or location and possible times when a location maybe overburdened and thus alternative locations being sort by the driver.

Summary

Telematics data is not just sourced from in-vehicle data.

In-vehicle data supports ground truthing smart analytics around predictive data science.

The NHVR is embracing multiple data sources, with our Data Science Team “sweating” to look beyond traditional outcomes.

We are looking at how the industry operates, and we support the identification of limitations that could be addressed in the future.

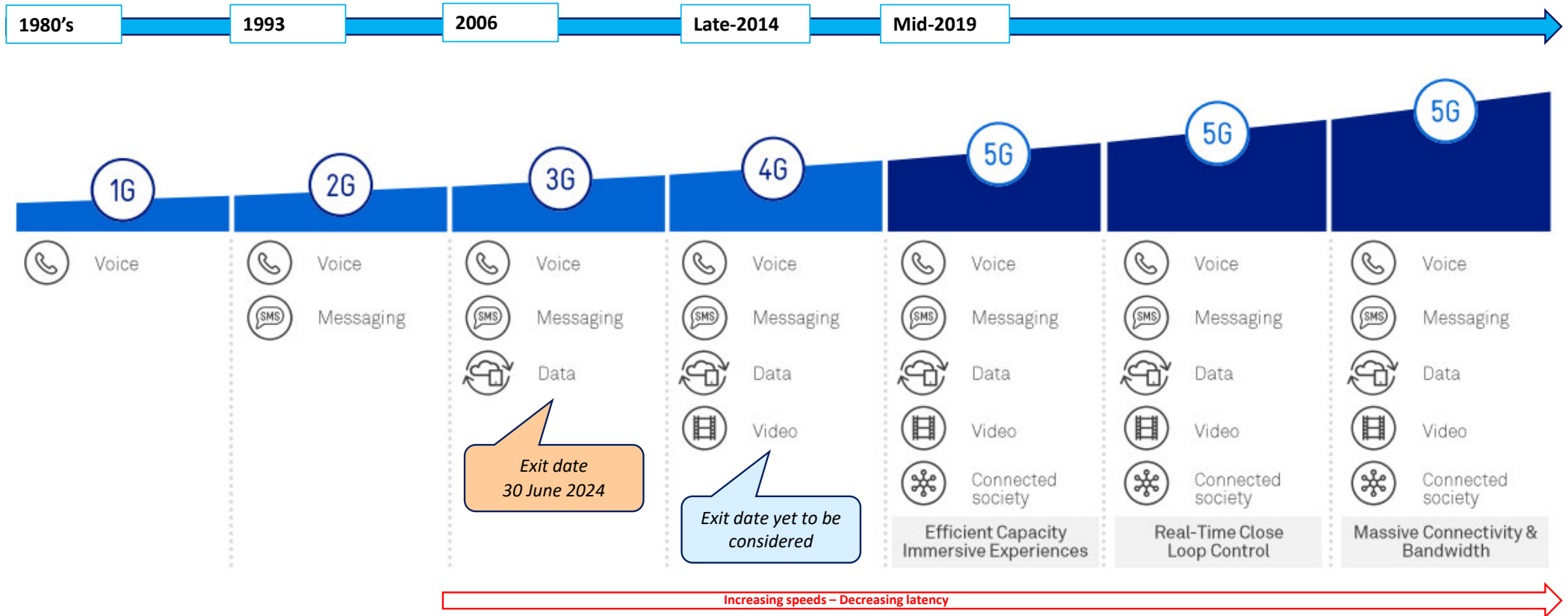
The background of the slide features an aerial view of a city with a network overlay of white lines and nodes. Several circular icons are connected to the network, including a car, a train, a person, a bus, a traffic light, a speech bubble, a smartphone, a map, a satellite, and a location pin with an arrow.

WHAT'S NEW IN TELEMATICS?

3G Shutdown and what that means for the industry

David McIntosh
National Sales Specialists IoT - Telematics
Telstra

Each evolution in Mobile technology enhances performance and ability to service increasing data demand



3G Network Closure June 30th 2024



Global 3G decline.

With the increased adoption of newer 4G and now 5G services, usage of 3G has declined globally.

Network migration.

We will be closing our 3G network on 30th June **2024**. This is an opportunity to migrate to faster and advanced services.

Greater opportunities.

Leveraging our mobile network infrastructure, our Cellular Low Power Wide Area Networks (Cellular LPWANs) are built specifically for scaled IoT deployments to give you better, cost-efficient coverage.



What does this mean and what steps should be taken?



1. IDENTIFY

Reach out to your current provider and request a telematics audit to identify how many if any assets are impacted.

Does my current provider meet our current and future needs??



2. CONSIDER OPTIONS

Evaluate not only your current requirements but future.

- Regulatory compliance needs and certifications
- Boots on the ground/dedicated support, install network and general scale
- Integration capability/Push and pull API's
- Security and data storage
- Multiple hardware options to suit different asset types
- Expandability
 - Video with AI
 - Paperless forms
 - in cab screens
 - FTC and FBT Reporting
 - Engine data/IOX

3. IMPLEMENTATION

Before committing to your existing or new provider make sure to get commitment of stock.

Don't leave it too late.

Ensure you commit to a rollout schedule and don't leave it to chance.





Innovation & Technology Capacity

Our advanced networks are enabling faster data transfers bringing forward innovations for connected vehicle solutions ensuring safer and more efficient journeys.



IoT Network

LTE-M and NB-IoT (Cellular LPWANs) have the benefits of mobile technologies, but with new advantages over high bandwidth options:



Massive scale

A network built to support millions of devices



Extended coverage

Built to reach into buildings and sub-surface areas



Extended battery life

Low power operation for compatible IoT devices



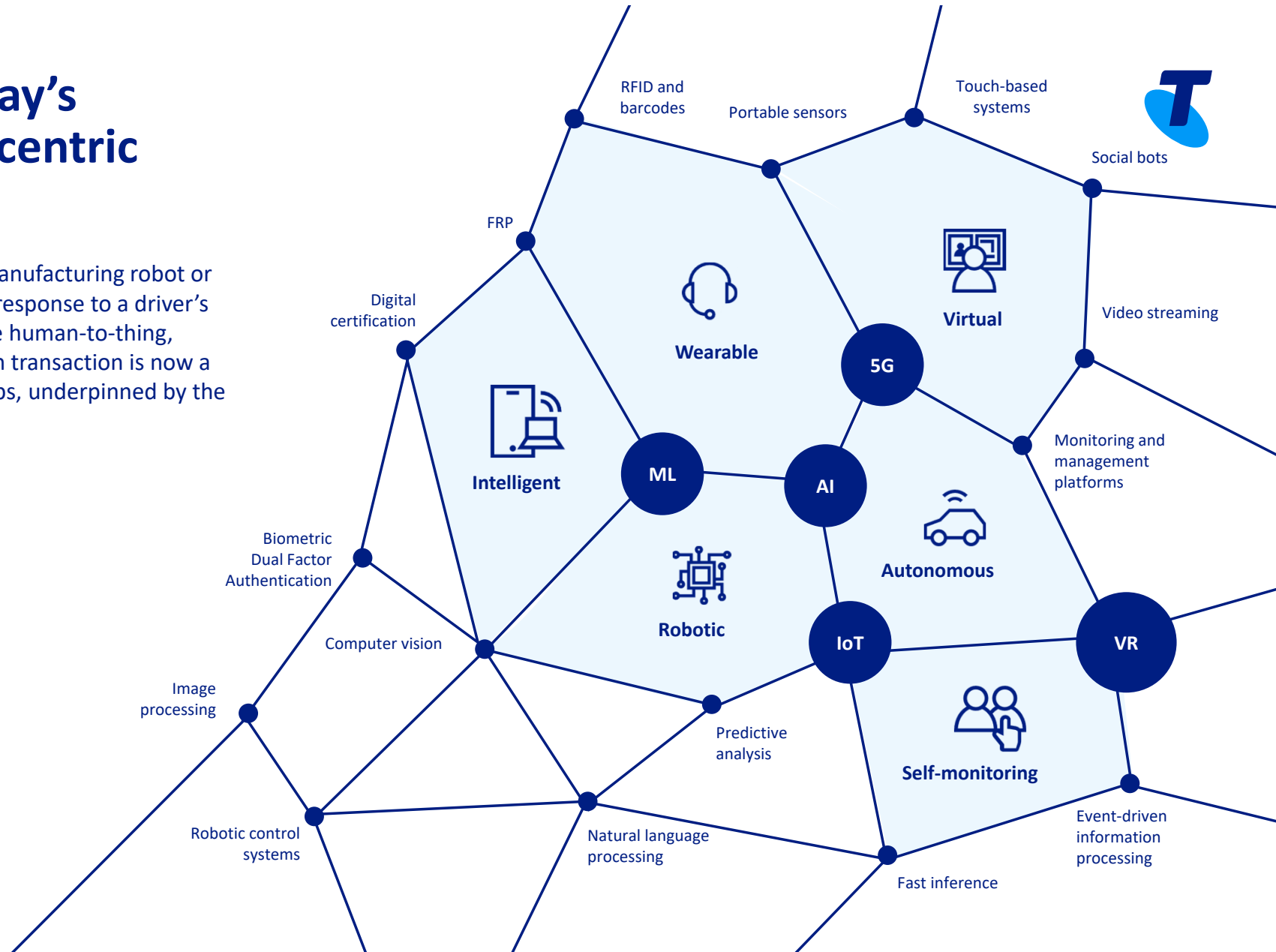
Future assured

Coexists with 5G, a long-term priority for Telstra

Demand for IoT is likely to expand into the future as new uses cases emerge

Welcome to today's digital network-centric business world

From an observation drone to a manufacturing robot or an autonomous decision made in response to a driver's licence enquiry – every imaginable human-to-thing, thing-to-thing or human-to-human transaction is now a complex web of digital relationships, underpinned by the network.








Connected Supply Chain solutions are interlinked.....



Telstra Purple

Bringing together our experts with the customers experts to solve complex problems

 DRIVER	 VEHICLE	 ASSETS	 FREIGHT VISIBILITY	 ROUTE OPTIMISATION
Advanced Driver Safety Fatigue and distraction Mitigation Speed Management Fatigue Management Compliance Assurance	Vehicle Location Engine management Maintenance Driver behaviour Fuel usage Compliance Assurance	Asset Location Improve visibility & control of all assets <ul style="list-style-type: none"> • Trailers/Wagons • Containers • Small Plant/Equipment • Pallets/ULDs 	Freight Visibility Freight location Status/Predictive ETA	Route Optimisation Detect, correct & predict bottlenecks



Questions and Comments from the floor





What's New in Telematics?

Thanks for attending

