New telematics applications and data insights

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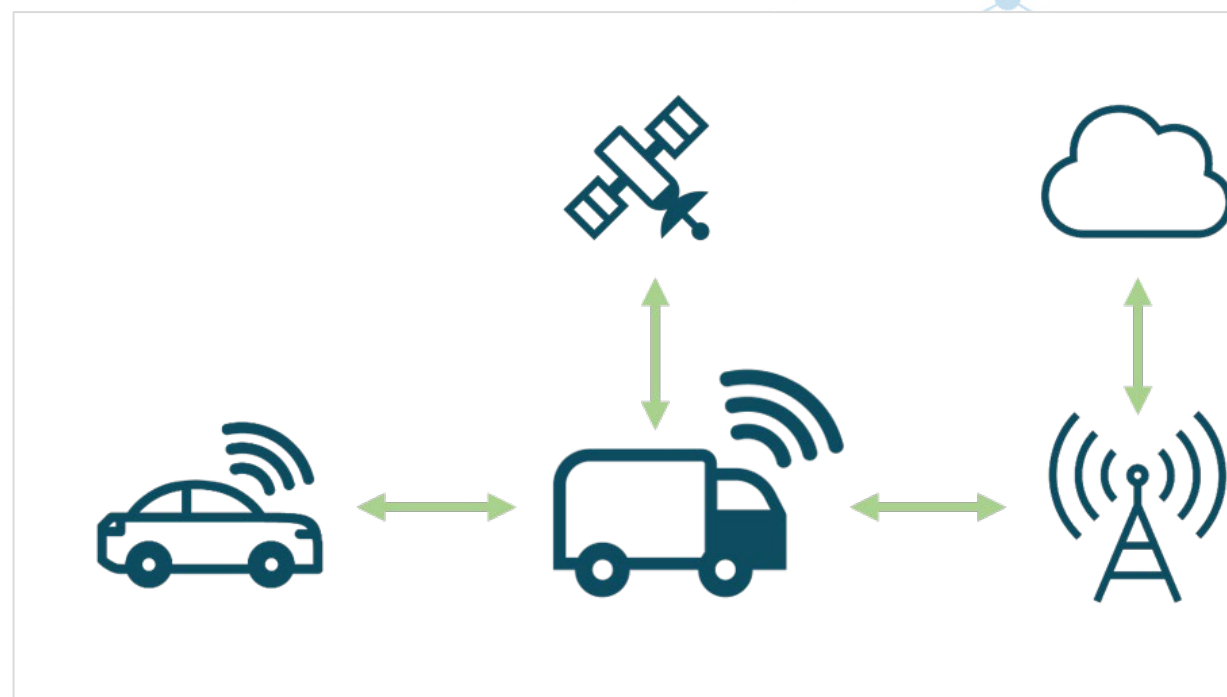# Overview

Key topics covered:

- Trends with telematics

- National Telematics Framework

- Levels of assurance

- New applications

- Telematics Analytics Platform

- Emerging technologies

Telematics is evolving

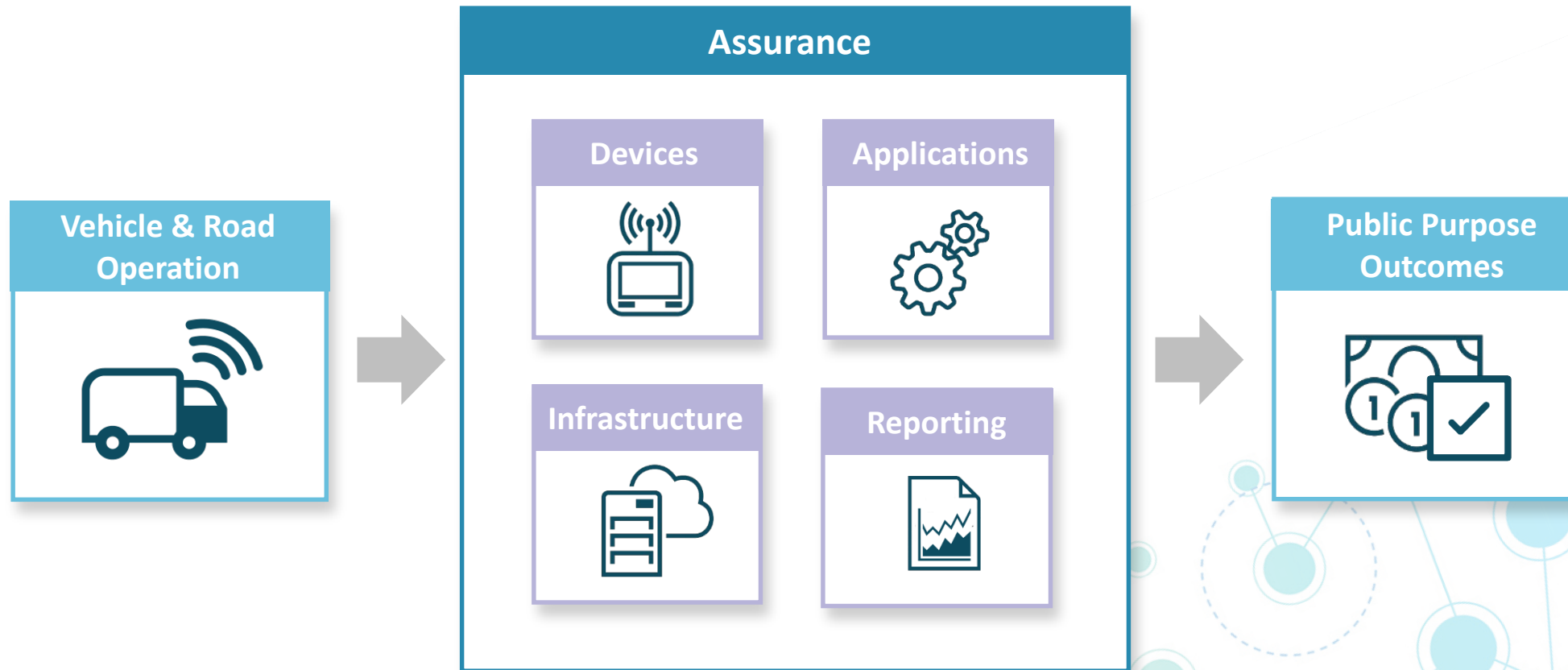Telematics is the integrated use of ICT to transmit, store & receive data

Key trends with vehicle telematics include:

- Multiple transport modes

- ICT evolving & ubiquitous

- Embedded systems & sensors

- Real-time data

- User demands shifting

- Improved outcomes & insights

National Telematics Framework

Platform of common rules, specifications and digital infrastructure to support national consistency & optimise outcomes

Levels of assurance

Assurance provides confidence that agreed standards are complied with

Different applications require different levels of assurance

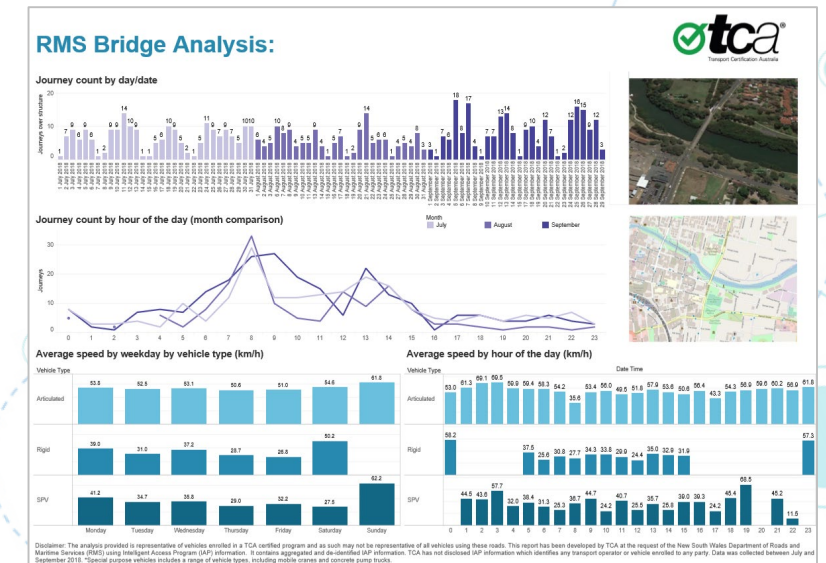| Assurance level	Description
Level 3	■ Independent assessment and operational oversight ■ Certificate-based data (evidentiary standard) ■ Type-approved devices
Level 2	■ Independent assessment and operational oversight ■ Telematics data assessed but not certified ■ Type-approved devices
Level 1	■ Self assessment and no independent oversight ■ Telematics data not certified ■ Support BYO devices

New certified applications

Telematics Monitoring Application (TMA) – level 2

- TCA oversight and type-approval of devices

- Supports compliance activities, but not certified NCRs

- Supports network planning, monitoring, asset management

Road Infrastructure Management (RIM) – level 1

- TCA oversight is minimal

- Enables BYO devices or type-approved devices

- Supports network planning, monitoring, asset management

On Board Mass (OBM)

OBM can dynamically measure mass by axle group

- TCA type-approval commenced Q3 2018

- 4 OBM systems now type-approved (category A)

- Can be integrated with telematics devices

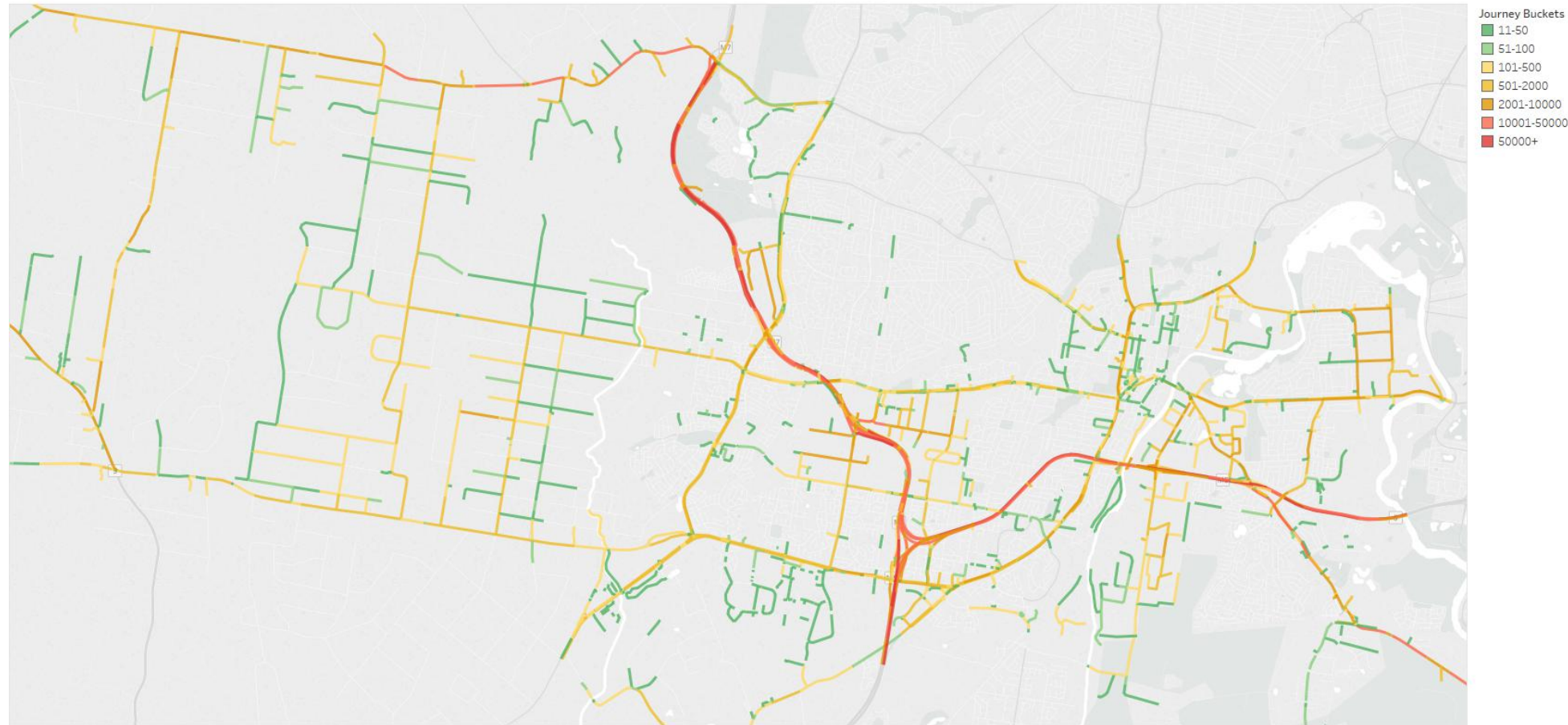- Can support specific road operator schemes

Telematics Analytics Platform

Wide area analysis:

SPV movements in a Local Government Area
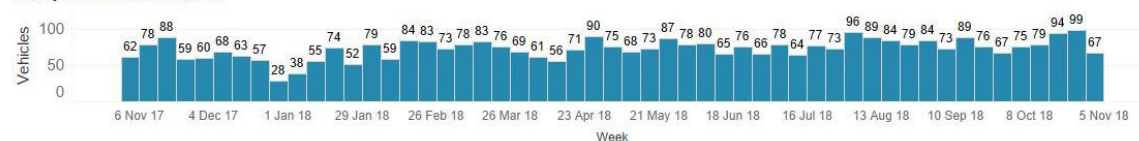
Structure analysis:

Journeys by vehicle type

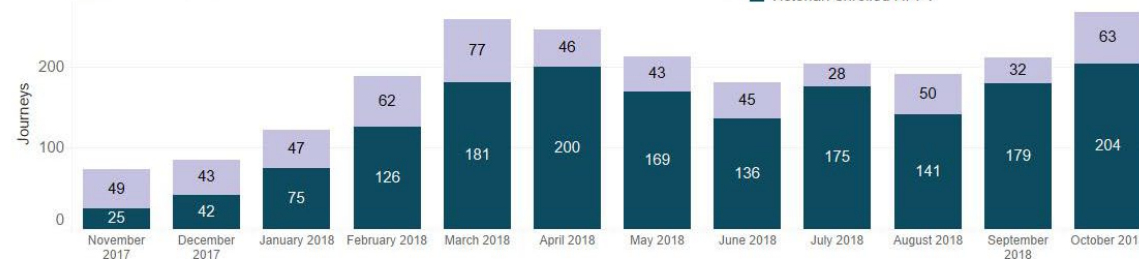|	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018
B Double	698	534	565	535	620	567	687	516	557	632	562	628
Cranes	6	7	2	9	6	11	7	8	13	21	16	13
Non-Victorian enrolled HPFV	49	43	47	62	77	46	43	45	28	50	32	63
Rigid and Trailer	8	2		5	4		5	3		1	4	7
Semi Trailer	33	33	22	26	41	44	49	57	56	85	60	40
Victorian-enrolled HPFV	25	42	75	126	181	200	169	136	175	141	179	204
Unknown	5	1	8	18	29	13	4	15	11	17	8	9

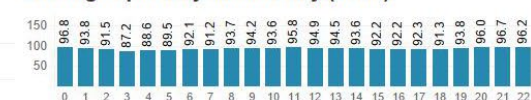### Journeys/week

Unique vehicles/week

HPFV-type journeys per month (Victorian HPFV and equivalent interstate)

Position record locations

Average speed by hour of day (km/h)

Journeys by weekday

Vehicle type breakdown

	% of journeys	% of unique vehicles
B Double	69.7%	57.9%
Cranes	1.2%	6.0%
Non-Victorian enrolled HPFV	5.7%	14.1%
Rigid and Trailer	0.4%	1.1%
Semi Trailer	5.4%	10.0%
Victorian-enrolled HPFV	16.2%	7.4%
Unknown	1.4%	5.9%

www.tca.gov.au

Emerging technologies

Assurance program is evolving with consideration to the following:

- Embedded telematics

- Extended Vehicle concept

- Cooperative systems

- Cybersecurity

- Automated Driving Systems

Thank you