

Road Access Trends

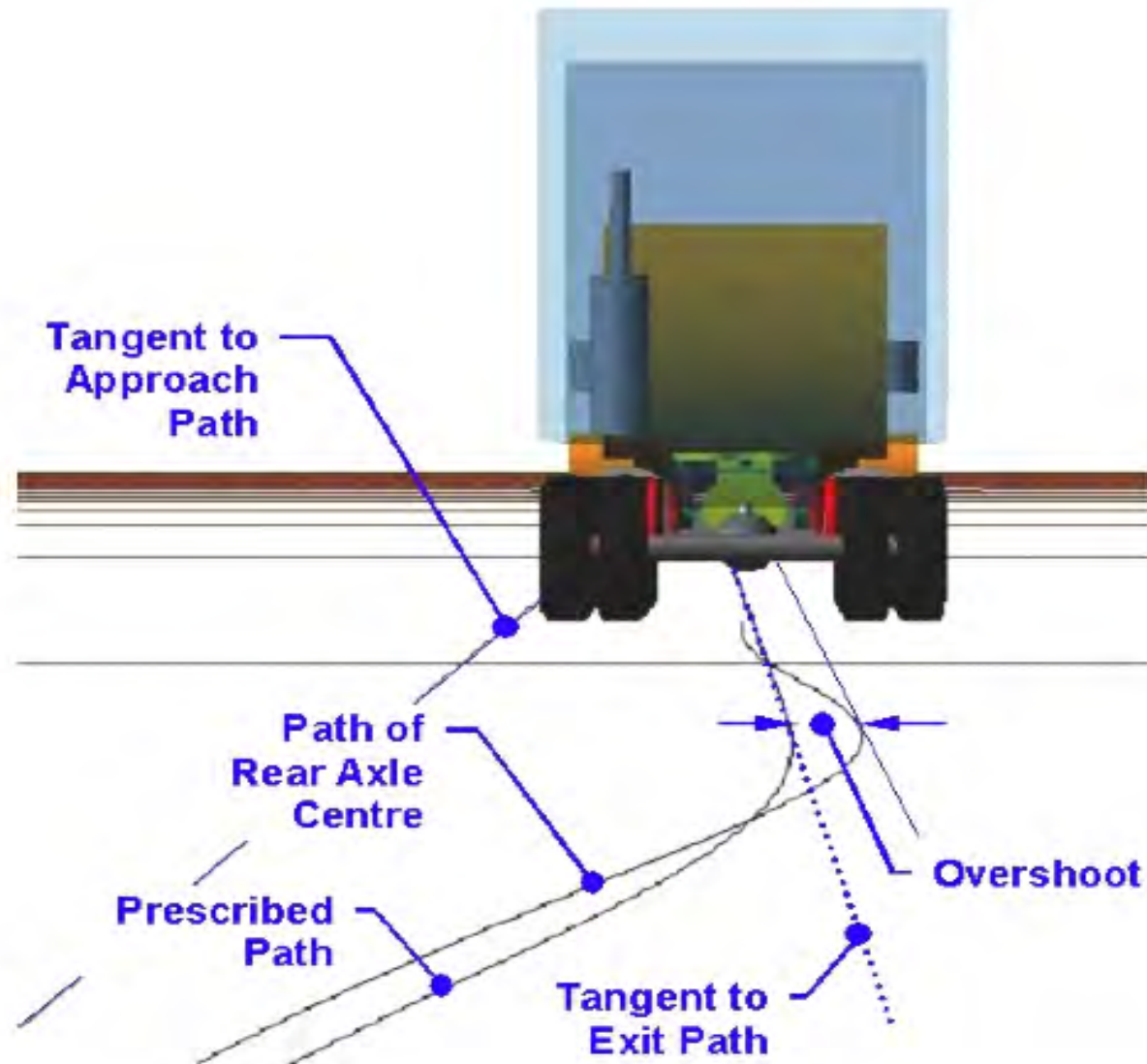
Peter Hart
Chairman ARTSA



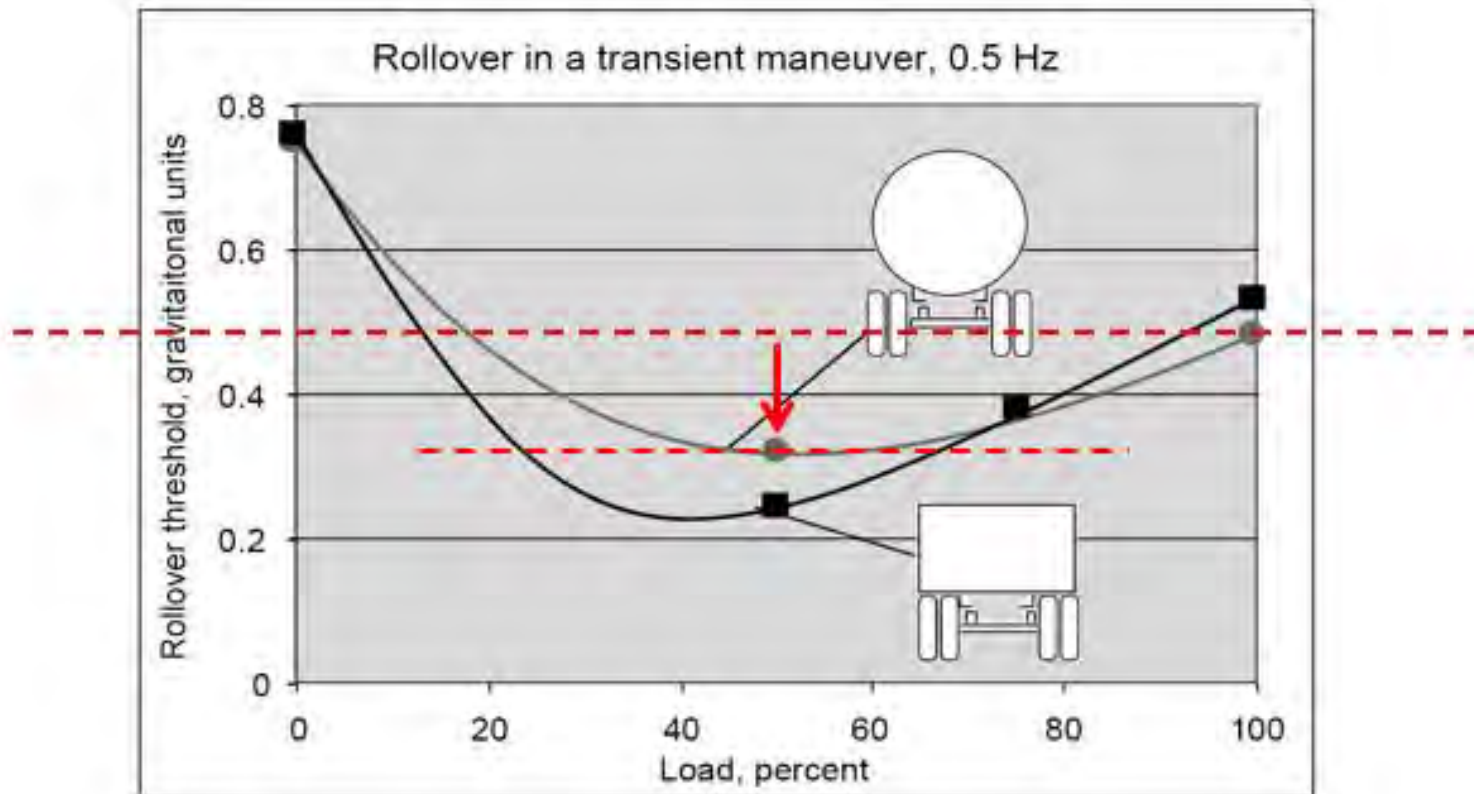
Performance-Based Standards



PBS Approvals



Performance-Based Standards



PBS Approvals

NHVR:

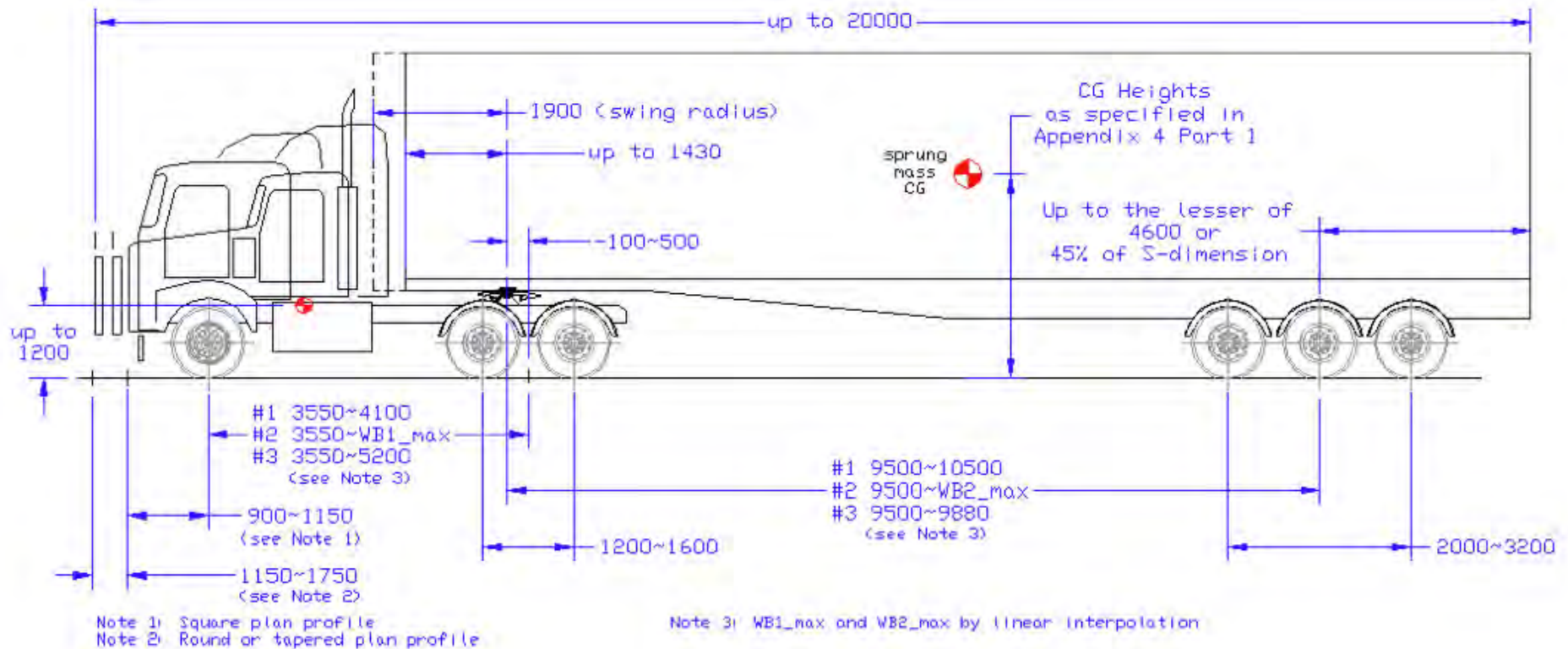
Issues Approvals based upon simulation evidence
(16 safety and 4 infrastructure),

Arranges Permits,

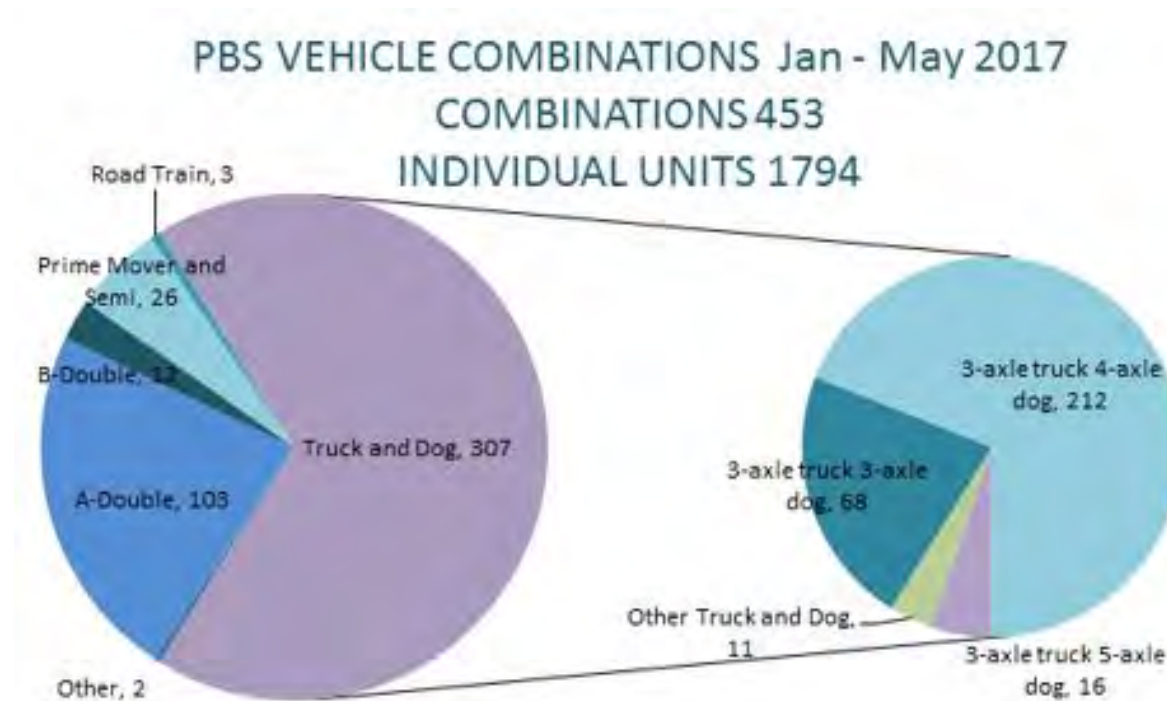
Accredits assessors, and

Accredits inspectors.

PBS Blueprint Approvals



Performance-Based Standards Applications



PBS Approvals

Performance Based Standards approved Truck and Dog combinations



Transport
Roads & Maritime
Services

Quin Dog

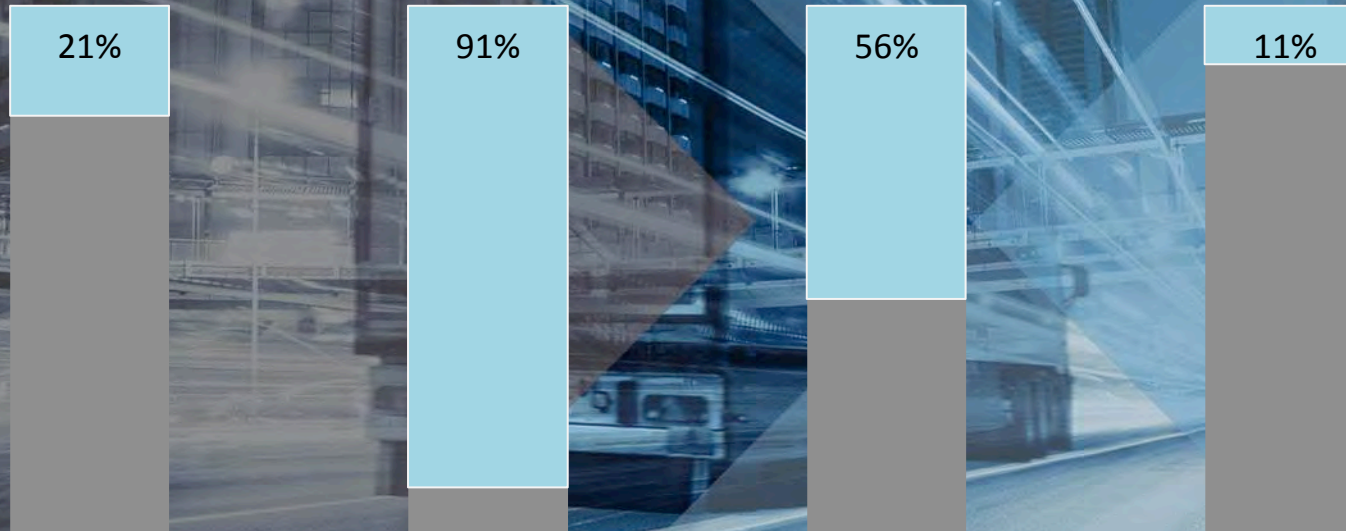


					TCM	Notes
RAV B-Double Network	6.5	16.5	16.5	20.5	59.5t	
HML B-Double Network	6.5	17.0	17.0	22.5	63.0t	IAP



PBS Approved Combinations

PBS Approved dog trailers
as % of new registrations in 2016



3-axle dog trailer

4-axle dog trailer

5-axle dog trailer

6-axle dog trailer



Responsibilities for Road Transport



Federal Government:

- New vehicle regulation and homologation.
- Vehicle imports.
- Technical standards.
- Treaties and Trade (UN ECE).
- Reform proposals.
- Federally funded roads (\$\$\$).





















State Governments:

- In-service vehicle regulation.
- Roadworthiness.
- Road access for heavy vehicles.
- Special purpose and Dangerous Goods vehicles
- Occupational Health and Safety















Local Governments:

- Access to Local Roads




Types of Heavy Vehicles Used in Australia

Class 1 Heavy Vehicles (examples for illustration purposes)				August 2017
Special Purpose Vehicle (SPV)		Oversize/Overmass Vehicles (OSOM)		
1	 All Terrain Crane	15		Prime Mover and Low Loader (Gooseneck)
2	 All Terrain Crane with a Dolly	16		Prime Mover and Low Loader with Dolly (Gooseneck)
3	 Pick and Carry Crane	17		Prime Mover and Platform Trailer (Gooseneck)
4	 Truck Mounted Crane	18		Prime Mover and Extendable Trailer
5	 Truck Mounted Drill Rig	19		Block Truck towing Drawn Platform
6	 Truck Mounted Concrete Pump	20		Two Block Trucks towing Drawn Platform with Push Block Truck
7	 Prime Mover Towing a Drill Rig Trailer	HVNL Definitions		
8	 Grader	<p>HVNL s116 (1) (1) A heavy vehicle is a class 1 heavy vehicle if it, together with its load, does not comply with a prescribed mass requirement or prescribed dimension requirement applying to it, and— (a) it is a special purpose vehicle; or (b) it is an agricultural vehicle other than an agricultural trailer; or</p> <p>Note— See subsection (2) for agricultural trailers. (c) it— (i) is a heavy vehicle carrying, or designed for the purpose of carrying, a large indivisible item, including, for example, a combination including a low loader; but (ii) is not a road train or B-double, or carrying a freight container designed for multi-modal transport.</p> <p>HVNL s116 (4) Special purpose vehicle means— (a) a motor vehicle or trailer, other than an agricultural vehicle or a tow truck, built for a purpose other than carrying goods; or (b) a concrete pump or fire truck.</p> <p>HVNL s5 Agricultural vehicle means an agricultural implement or agricultural machine.</p> <p>HVNL s5 Agricultural trailer means a trailer that is designed to carry a load and used exclusively to perform agricultural tasks, but does not include a semitrailer.</p> <p>HVNL s5 Oversize vehicle means a heavy vehicle that does not comply with a dimension requirement applying to it.</p> <p>NHVR Notes: Not all SPV's and agricultural vehicles are Class 1 heavy vehicles. SPV's and agricultural vehicles which comply with prescribed mass and dimension requirements are general access vehicles.</p> <p>Overmass Vehicle: A heavy vehicle or combination that does not comply with a prescribed mass requirement applying to it (including gross mass, axle or axle group mass).</p>		
9	 Firetruck			
Agricultural Vehicles (including implements and trailers)				
10	 Combine Harvester			
11	 Tractor			
12	 Grain Auger			
13	 Comb Trailer			
14	 Cane Haul Out Truck			





Types of Heavy Vehicles Used in Australia

Class 2 Heavy Vehicles (examples for illustration purposes)		
Freight Carrying Vehicles	Vehicles Exceeding 4.3m in Height (up to 4.6m high as per Schedule 6 of Heavy Vehicle (Mass, Dimension and Loading) National Regulation) (MDU)	
21  B-double	37  Vehicle Carrier	
22  A-double	38  A-double (Livestock)	
23  A-double	39  B-triple (Livestock)	
24  A-double	HVNL Definitions	
25  B-triple	HVNL s136 A heavy vehicle is a class 2 heavy vehicle if— (a) it— (i) complies with the prescribed mass requirements and prescribed dimension requirements applying to it; and (ii) is— (A) a B-double; or (B) a road train; or (C) a bus, other than an articulated bus, that is longer than 12.5m; or (D) a combination designed and built to carry vehicles on more than 1 deck that, together with its load is longer than 19m or higher than 4.3m; or (E) a motor vehicle, or a combination, that is higher than 4.3m and is built to carry cattle, sheep, pigs or horses; or (b) it is a PBS vehicle.	HVNL s5 B-triple means a combination consisting of a prime mover towing 3 semitrailers, with— (a) The first semitrailer being attached directly to the prime mover by a fifth wheel coupling; and (b) The second semitrailer being mounted on the rear of the first semitrailer by a fifth wheel coupling on the first semitrailer; and (c) The third semitrailer being mounted on the rear of the second semitrailer by a fifth wheel coupling on the second semitrailer.
26  B-triple		HVNL s5 road train means— (a) A B-triple; or (b) A combination, other than a B-double, consisting of a motor vehicle towing at least 2 trailers, excluding any converter dolly supporting a semitrailer.
27  AB-triple		HVNL s5 PBS vehicle means a heavy vehicle that is the subject of a current PBS vehicle approval under Part 1.4.
28  A-triple		HVNL s5
29  BAB-Quad		
30  ABB-Quad		
31  Rigid Truck and 2 Semitrailers	HVNL s5 B-double means a combination consisting of a prime mover towing 2 semitrailers, with the first semitrailer being attached directly to the prime mover by a fifth wheel coupling and the second semitrailer being mounted on the rear of the first	

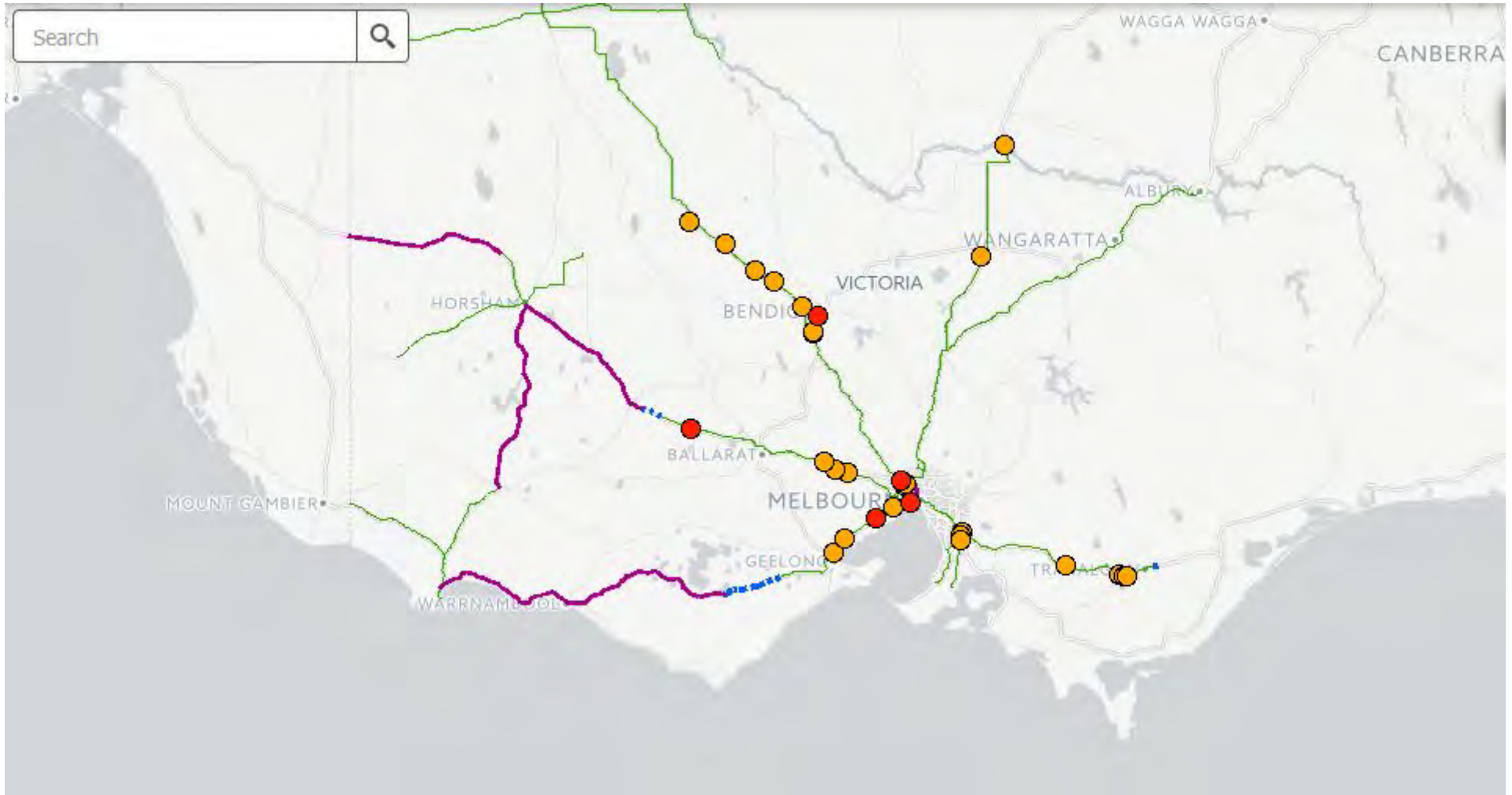
Types of Heavy Vehicles Used in Australia

Class 2 Heavy Vehicles <small>(examples for illustration purposes)</small>		
Performance Based Standards (PBS)		
32		Prime Mover and Quad Axle Semitrailer
33		Rigid Truck and 5 Axle Dog Trailer
34		B-double with Quad Axle Groups (up to 30m)
35		A-double (up to 30m)
Buses		
36		Controlled Access Bus

Types of Heavy Vehicles Used in Australia

Class 3 Heavy Vehicles (examples for illustration purposes)			
40		Rigid Truck and Dog (over 42.5 tonnes GCM)	HVNL Definitions NHVR Notes: A truck and dog trailer combination whose dimensions and mass do not exceed prescribed mass and dimension requirements is a general access vehicle. If its mass or dimension limits exceed prescribed requirements, this combination is classified as a Class 3 vehicle. Examples of Class 3 vehicles include: * A truck and dog trailer combination consisting of a rigid truck with 3 or 4 axles towing a dog trailer with 3 or 4 axles weighing more than 42.5t is an example of a class 3 heavy vehicle. * Other examples might include a B-double or road train transporting a load wider than 2.5m.
41		Prime Mover and Semitrailer towing a Converter Dolly	
42		B-double towing a Converter Dolly	
43		Underhook/ Underlift Tow Truck	

Victorian HPFV Network



Intelligent Access Project (IAP)

Transport Certification Australia was set-up by the Federal Government to:

- Facilitate intelligent control over road access.



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- Establish technical standards for GPS-based vehicle telematics that can report compliance with rules.



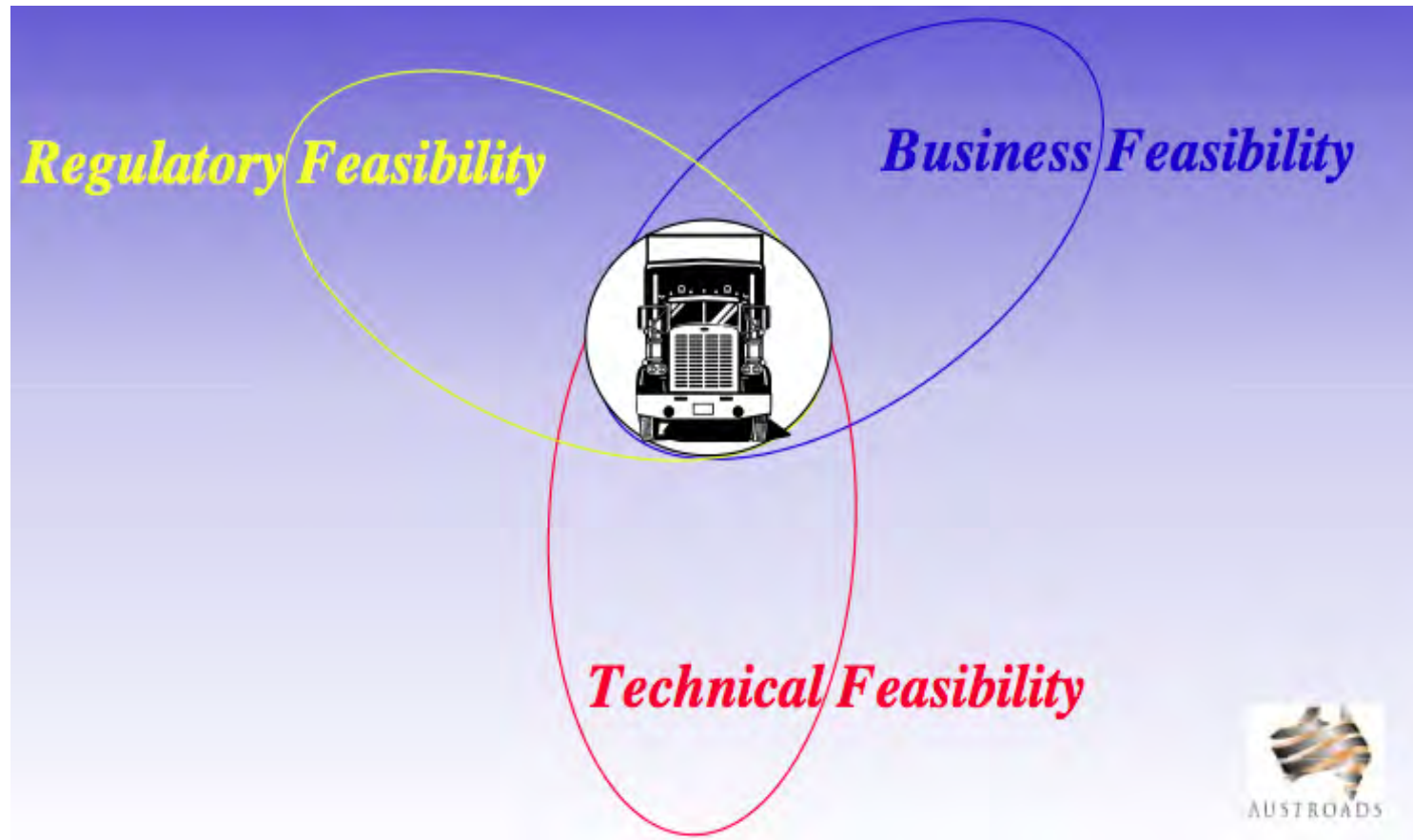
Intelligent Access Project (IAP)

Transport Certification Australia was set-up by the Federal Government to:

- Facilitate intelligent control over road access.
- Establish technical standards for GPS-based vehicle telematics that can report compliance with rules.
- Establish accreditation standards and procedures.



Intelligent Access Project (IAP)



Intelligent Access Project (IAP)

IAP is voluntary.....



Intelligent Access Project (IAP)

IAP is voluntary.....

but is mandated in NSW on:

- HML vehicles.
- B-triples and AB-Triples.
- High risk mobile cranes.

- Victoria requires that A-doubles have IAP equipment
-





Victorian HPFV Network



Victoria's HPFV Networks for 30 metre 85.5 tonne A-Doubles

What is the difference between current B-Doubles and HPFV A-Doubles?

B-Doubles are up to 26 metres long and have a Gross Combination Mass (GCM) up to 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. The A-Double maps and details of Victoria's A-Double HPFV network are available on

What are the specific mass limits and axle spacings?

The mass limits for B-Double HPFV operating on the network are as follows:

- Steer Axle – 6.0 tonnes
- Steer Axle – 6.5 tonnes¹
- Drive Axle or Tandem Axle Group – 17.0 tonnes
- Tri-Axle Groups – 22.5 tonnes
- Overall – 85.5 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):²

HPFV A-Double Reference Vehicle 1 (not to scale)

A-Double up to 85.5 tonne and 30 metres – 5.2 metre 'central trailer spacing' and 5.2 metre trailer axle spacing



National PBS Truck and dog trailer notice

Information Sheet – May 2016

National Class 2 PBS Level 1 & 2A Truck and Dog Trailer Authorisation Notice 2016

This document provides information on Performance Based Standards (PBS) vehicles which will be authorised to operate under the *National Class 2 PBS Level 1 and 2A Truck and Dog Trailer Authorisation Notice 2016* (the Notice).

Purpose of the PBS Notice

The Notice establishes a consistent framework for PBS truck and dog operations by providing access to appropriate networks under a gazette notice.

This will replace the need for permits for vehicles covered by the notice and aligns with the principles of PBS to have the right vehicles on the right roads.

Permits will still be required to access roads which are not part of the road manager approved PBS networks and also

It is a requirement of the *Heavy Vehicle National Law* (s153) for drivers to keep a copy of the PBS Vehicle Approval in their possession when operating under the notice.

NSW and Queensland conditions

PBS truck and dog combinations operating at Higher Mass Limits (HML) in New South Wales or Queensland must be enrolled in the Intelligent Access Program (IAP).

To find out further information on the IAP, please visit <http://www.tca.gov.au/certified-services/iap>. For jurisdictional enrolment information, please visit:

NSW: <http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/intelligent-access-program.html>



Transport
Roads & Maritime
Services

Safety, Productivity & Environment Construction Transport Scheme

Frequently Asked Questions

1. What is the Safety, Productivity and Environment Construction Transport Scheme?

The Safety, Productivity & Environment Construction Transport Scheme (*SPECTS*) is a voluntary scheme aimed at helping enable the efficient movement of construction materials. The scheme applies to government projects and all other construction projects across Sydney, Wollongong and Newcastle.

What are the requirements?

At least, a minimum of Euro 5 engine, additional safety features, enrolment in the Intelligent Access Program (IAP), On Board Mass (OBM) monitoring systems linked to the IAP.

2. What will be the benefits of SPECTS for transport operators?

Operators will be able to transport greater mass than they may currently be able to do under permit.

An independent consultant engaged by Roads and Maritime estimated enrolled transport operators would realise increased productivity benefits of up to \$100,000 per truck per year.

3. How will the community benefit from the scheme being used by transport operators?

Benefits will include reduced congestion with an estimated 17 per cent reduction in truck movements around major government infrastructure projects alone, or 1,000 fewer truck movements per week, environmental and safety benefits by ensuring vehicles meet Performance-Based Standards (PBS) and have a minimum Euro 5 diesel engine to reduce harmful emissions and safety benefits to road users with participating vehicles meeting rigorous safety standards.

4. How will the scheme be enforced?

Vehicles must be fitted with an Intelligent Access Program (IAP) in-vehicle unit to enable satellite-based tracking which will ensure heavy vehicles are operating on the right roads. Vehicles must also be fitted with On Board Mass measurement devices so Roads and Maritime Services can monitor how much is being transported.

5. What types of vehicles will be eligible to join the Scheme?

Truck and dog combinations, semi-trailers and concrete agitators will be eligible to participate in the

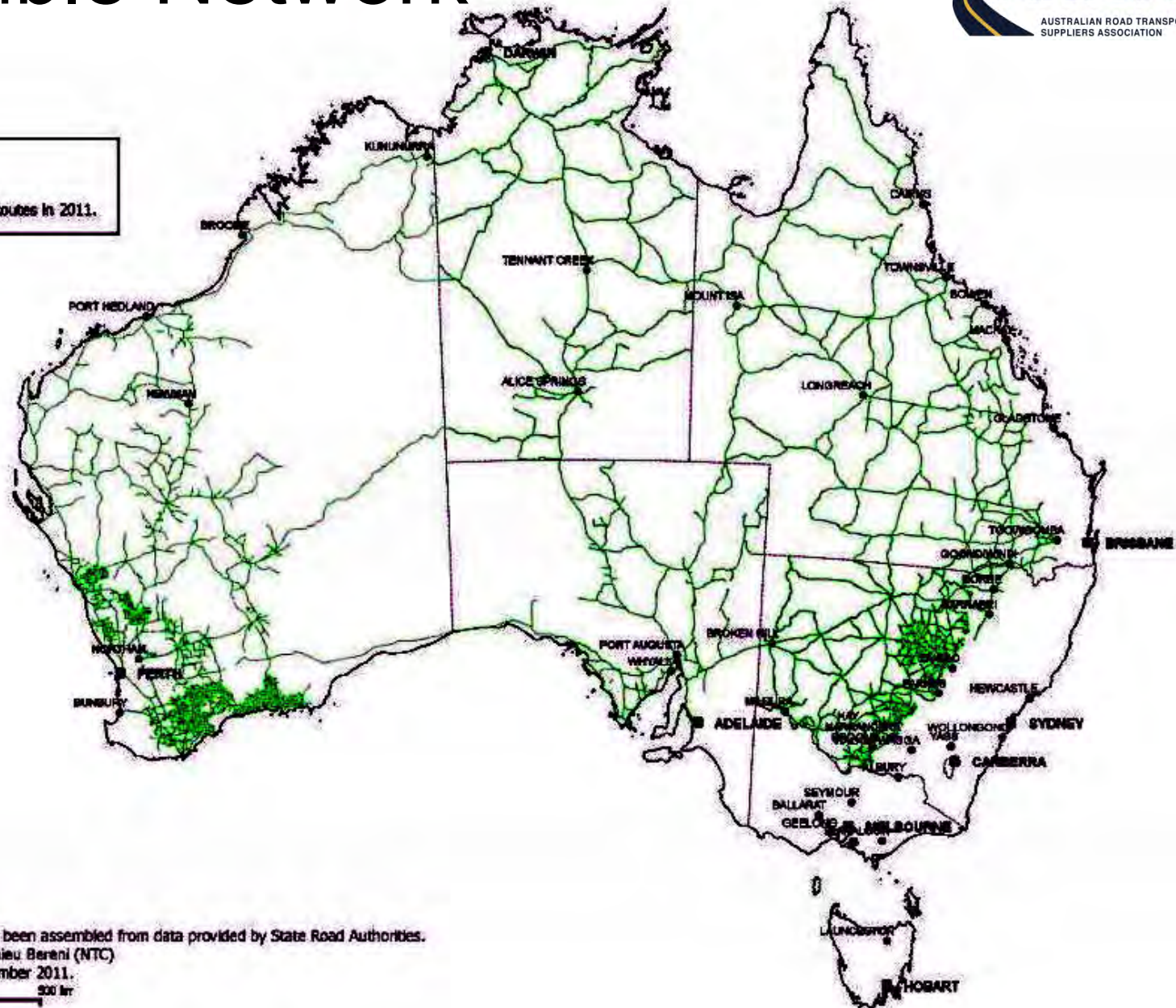
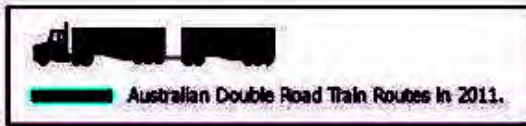
B-triples



B-triples


- Total length limited to 35 m.
- Maximum weight is 84.5 t (CML) cf 81t for a road-train double.
- Minimum engine power of 373 kW (500 HP)
- Start-ability level of > 10% and grade-ability level > 12 %
- Must maintain a speed of 70 km/h on a 1% grade at 84.5 t weight
- Configurable from B-double parts
- Not PBS


A-Double Network




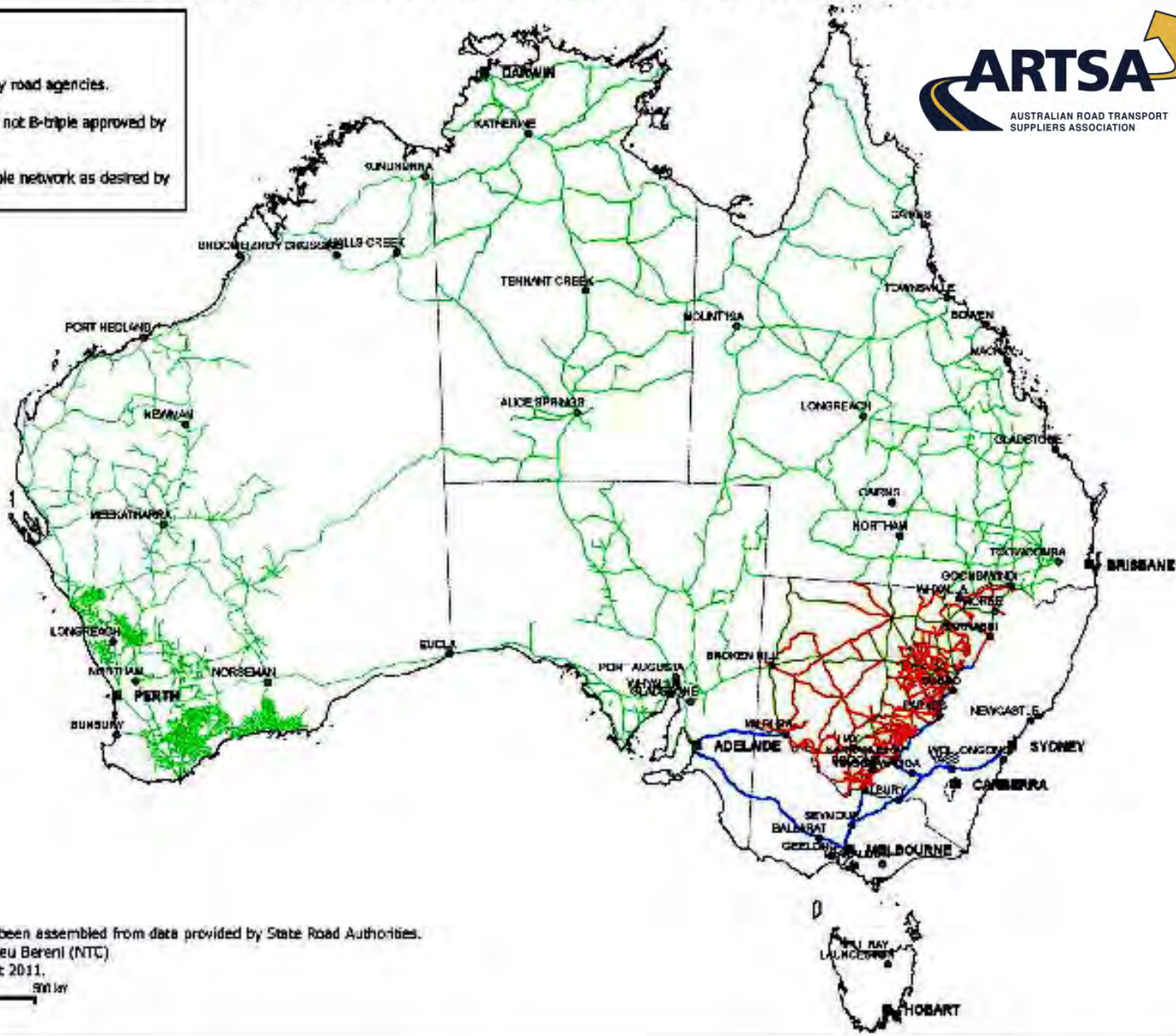
Development of a modular B-triple network



 GML B-triple routes approved by road agencies.

 GML Double road train routes / not B-triple approved by road agencies.

 Future expanded modular B-triple network as desired by the industry in 2011.



This map has been assembled from data provided by State Road Authorities.
 Author: Matthieu Bereni (NTC)
 Date: 4 August 2011.
 0 200 km



Milestones in Road Access Reform

- 2010 B-triple network agreed. On Type 1 roadtrain routes

Milestones in Road Access Reform



B-triple 30m + 85t

Milestones in Road Access Reform

- 2010 B-triple network agreed. On Type 1 roadtrain routes
- 2010 Transport Certification Agency (TCA) now operating.
Develops technical standards for electronic monitoring.
Certifies equipment that can be used for fatigue
management, mass management and
route compliance.
- 2014 National Heavy Vehicle Regulator (NHVR) established.
Regulates in-service vehicles. 'One-stop-shop'
States opt in by passing consistent legislation.
- 2016 National notice allows 5 and 6-axle dog trailer
combinations to 65t. This is a direct outcome of PBS.

Milestones in Road Access Reform

Payload: Grain
Length: 23 m
Gross mass: 63 tonnes



Milestones in Road Access Reform



6-axle dog trailers 26m + 70t

Milestones in Road Access Reform

- 2010 B-triple network agreed. On Type 1 roadtrain routes
- 2010 Transport Certification Agency (TCA) now operating.
Develops technical standards for electronic monitoring.
Certifies equipment that can be used for fatigue management, mass management and route compliance.
- 2014 National Heavy Vehicle Regulator (NHVR) established.
Regulates in-service vehicles. 'One-stop-shop'
States opt in by passing consistent legislation.
- 2016 National notice allows 5 and 6-axle dog trailer combinations to 65t. This is a direct outcome of PBS.
- 2017 Victoria announces that it will allow A-doubles (30m + 70t) onto the Level 2 B-double routes. Also, A-doubles to 85t on selected routes.

Milestones in Road Access Reform



A-double 30m + 70t

Thanks for Listening !

