

Great Australian Road Infrastructure Myths

Historically we have been told by Australian governments, particularly the Eastern State ones, that constraints imposed by Australia's road infrastructure prevent them allowing wider and higher axle mass limit vehicles on our roads. This push back by many State and Territory governments prevents alignment with many international dimensional and mass limits for road freight vehicles. Dimension and mass limits are fundamental to heavy vehicle design. A truck manufacturer starts with the dimensional and mass "envelope" regulations as the commencement point of any truck design. Many globally developed trucks cannot be brought to Australia without significant redesign and modification, resulting in cost increases and the reduction in heavy vehicle model availability here. Despite record new truck sales in Australia last year, Australian new truck sales represent just 0.8 percent of global truck production in 2018. It is unrealistic to expect global truck manufacturers to redesign their model ranges to suit Australian unique dimension and mass limits, when our market accounts for less than one percent of global truck sales.

I would like to reflect on a couple of comments that get trotted out by a number of the road engineers whenever the discussion turns to increased vehicle width or increased axle mass.

Myth #1: Australian lane widths are narrower than European road lanes. This is simply not the case. In the Austroads guidelines for Australian road design, 2010, the following widths apply:

General traffic lane widths - 3.3m to 3.5m

Freeway/Motorway lane widths - 3.5m minimum

High Occupancy Vehicle (Bus) lane width 3.5m to 4.5m

Whilst the typical road design widths in Europe are:

Minor road lane widths – 2.75m to 3.5m

Arterial road lane widths – 2.75 to 3.75

Freeway/Motorway lane widths - 3.5m to 3.75m

The minimum design width for some types of European roads is in fact narrower than the Australian Austroads design limit and yet width limit on general road freight vehicles in Europe is 2.55m, while refrigerated road transport vehicles in Europe have a maximum width limit of 2.6m. Some Australian road engineers will argue that older Australia roads are narrower than the Austroads limits detailed above and this may be the case, however Europe has many roads that are centuries old, many designed for horse and cart only, particularly in and around their older cities, yet 2.55m and 2.6m trucks run on these roads every day, interacting successfully with other trucks, cars and vulnerable road users. Myth busted.

Myth #2: Higher axle masses will cause more pavement damage. Again not true, if smart vehicle design and mitigation measures are deployed. For example, the National Transport Commission's (NTC) Performance Based Standards (PBS) vehicle's effectiveness paper, August 2017, detailed that the current 4,600 PBS vehicles operating for 1 year will reduce the freight task by 2.5 billion tonne-km, reduce truck movements by over 440 million kilometres, as well as reduce spending on road infrastructure maintenance by approximately \$65 million. Other significant advantages accrued by those same PBS vehicles were; 46% fewer major crashes than the existing non-PBS vehicles; had saved at least four lives during 2014-16. Projected to save about 120 lives over the next 20 years; 24.8 percent productivity gains across all commodities, saved 94 million litres of fuel in 2016, which reduced the CO2 emissions by about 250,000 tonnes, as detailed in the NTC's

report. Continuing the theme of additional axle mass, Austroads Report AP-R505-16 made recommendations in late 2016, that the steer axle mass of a truck could be increased to a safe limit of 7.0t, up from the current 6.5t limit, provided that the axle is fitted with tyres of a section width of greater than 375mm and in doing so, road damage would be actually reduced. Myth busted. The Austroads recommendations have been implemented by Western Australia and the Northern Territory. Other States have, to date, not acted on the report's recommendations.

The Truck Industry Council (TIC) believes that Australia must align with international dimensional and axle mass regulations to take full advantage of globally developed safety, environmental and productivity truck technologies. This alignment should start with a move to 2.55m maximum vehicle width and a 7.0t steer axle limit. TIC requests that the Transport and Infrastructure Council, within COAG, move on these recommendations as soon as possible.

Tony McMullan

CEO, Truck Industry Council