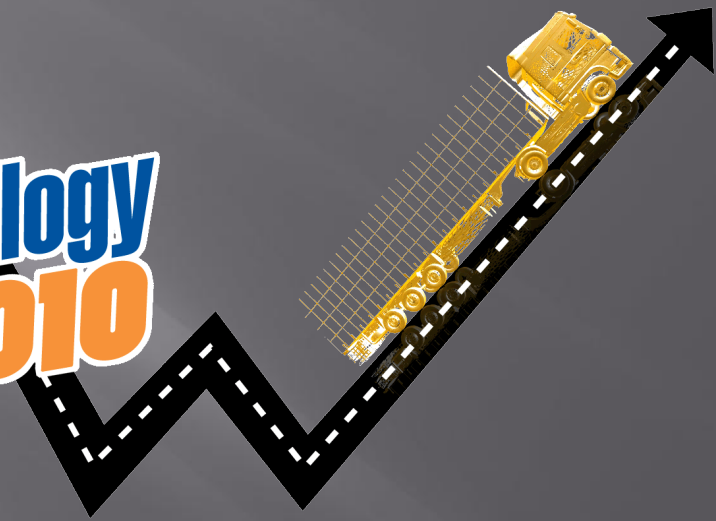




**Transport Technology
& Productivity 2010**



Higher Productivity Vehicles: A case study of B-doubles in Australia

presented by

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Australia and New Zealand

Map courtesy of The World FactBook



- ▣ NZ population only 20% of Australia
- ▣ NZ land area only 4% of Australia
- ▣ Distance Auckland to Melbourne same as Melbourne to Perth
- ▣ On average, Australia has the lowest population density in the world



Brief chronology

- ▣ 1979 – first request for a “Canadian B-train”
- ▣ 1982 – first trial in Western Australia, at the length of a standard vehicle



Brief chronology

- ▣ 1984 – first B-double in the eastern states (northern Victoria) and first longer than 17 metres



Brief chronology

- ▣ 1984 – next B-double used equal length trailers and triaxle in the middle, operating out of Adelaide in South Australia



Brief chronology

- ▣ 1984 – 1997 trials and approvals in NSW, Queensland and ACT
- ▣ By 1988, operating in all Australian States apart from Victoria

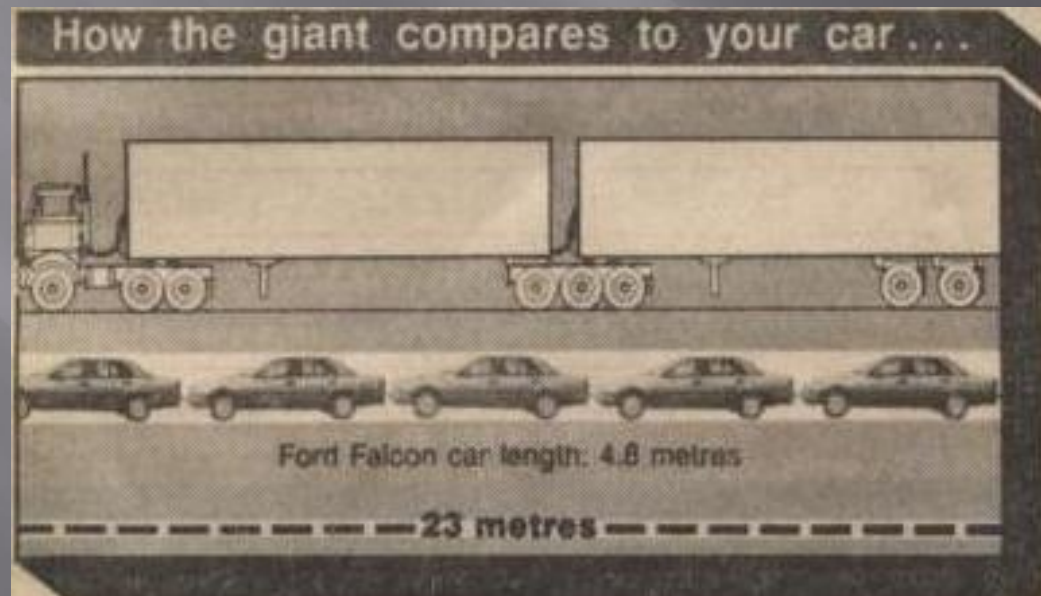


Media “commentary”

Road monsters heading our way

Let the answer to those who want these road monsters be clear, firm and prompt:

No way!



Media “commentary”

Big trucks are just sheer murder

*If ever there was a way for legal murder, the
.... Government in NSW has just unleashed
it. The Government has approved the use
of B-doubles on the State's roads – or some
of them anyway.*

B-double growth

- ▣ The first growth spurt came with introduction of a B-double with a triaxle at the rear, enabling an almost standard rear semi-trailer, or in this case three bays of logs, a 50% increase

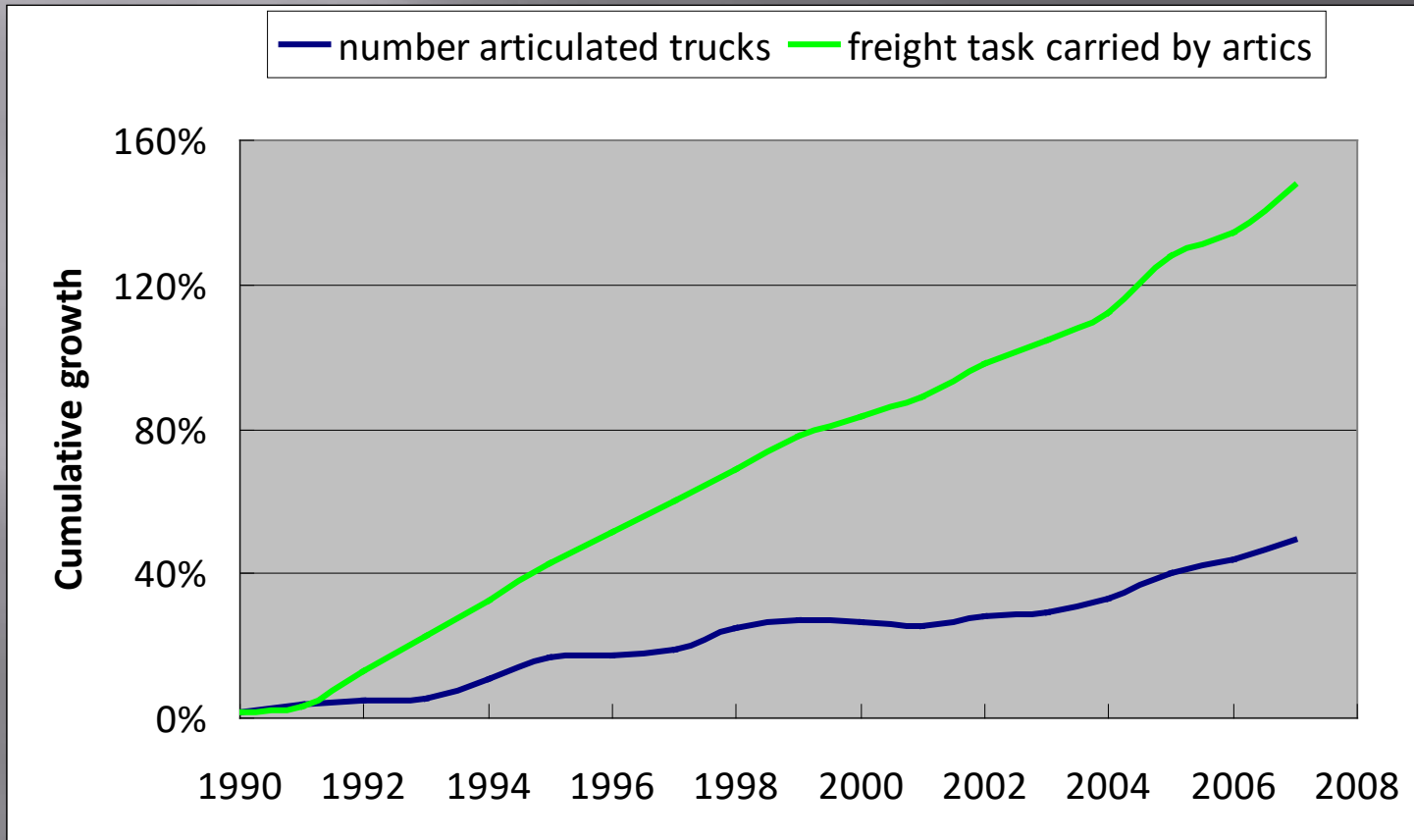


B-double growth

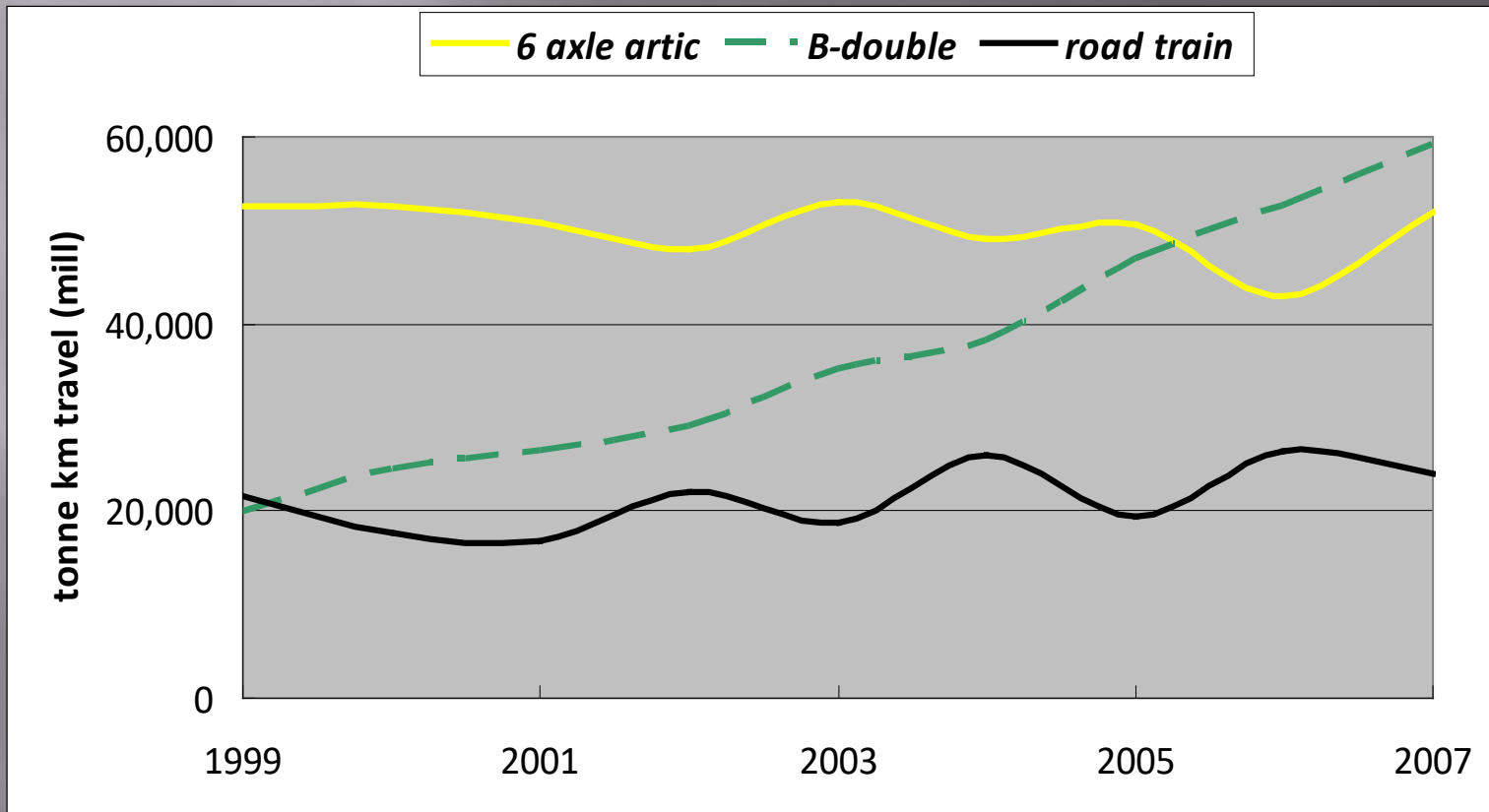
- ▣ By 1990, B-doubles were operating in all mainland States
- ▣ Further innovation with the tri-tri B-double and length increased from 23 to 25 metres
- ▣ Numbers of B-doubles rapidly increased, from 500 in 1990 to 7,000 in 2003 and 10,000 now



Higher Productivity



Higher Productivity



Value of productive trucks

Fleet reductions

- ▣ In 2008 there were 60,000 single articulated trucks, 10,000 B-doubles and 5,000 road trains (approx)
- ▣ Without B-doubles, it is likely that there would have been between 15,000 and 20,000 additional single articulated vehicles
- ▣ Thus fleet reduced by about 20%

Value of productive trucks

Savings in road trauma

Heavy vehicle crashes: Victoria – 1994 - 2003		
Fatal	Single articulated vehicles	329
	B-doubles	2
Serious injury	Single articulated vehicles	1420
	B-doubles	13
Other injury	Single articulated vehicles	2632
	B-doubles	20

Value of productive trucks

Savings in road trauma

- ▣ B-doubles a safer vehicle both dynamically and by reducing truck exposure
- ▣ Australia wide, at least 350 lives and over 3,000 serious injuries saved with the introduction of B-doubles
- ▣ This equates to a an average saving of about 8% to 10% per year from heavy vehicle crashes and trauma savings are now probably about 12% per year

Value of productive trucks

Savings in costs and emissions

- ▣ Savings of at least AUD 12 billion in transport costs
- ▣ Savings of at least 11 million tonnes of greenhouse gases
- ▣ This equate to a reduction on average of about 2.5% and savings are now probably about 5% of heavy vehicle fleet emissions

Value of productive trucks

Flow on benefits

- ▣ Using B-couplings in road trains to improve road train dynamic behaviour
- ▣ New configurations include B-triples (35 m long), AB-triples (42.5 m long) and BAB quads (51.5 m long)
- ▣ Significant economic and safety benefits result





What can we learn?

- ▣ Implementation strategies – trial periods
- ▣ Need for high level oversight (don't forget the view of drivers)
- ▣ Overcoming opposition – demonstrate the vehicles to all parties
- ▣ Regulatory attitudes – need to be willing to make changes to suit the best vehicles

What can we learn?

- ▣ The introduction of B-doubles into Australia has shown that controlled and gradual introduction of high performance freight vehicles into regular service can be achieved with significant benefits in fleet reductions, road safety and the economy.

B-Doubles: the First Decade in Australia



B-DOUBLES

The First Decade in Australia

A personal perspective
Bob Pearson



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