



MONASH University

Melbourne Public Transport Needs vs Promises

Institution of Transportation
Engineers
Thursday
21st August 2014
4:30 – 6:00 pm
Jacobs Theatre
452 Flinders St
Melbourne

Professor Graham Currie
*Institute of Transport Studies
Monash University*



Institute of Transport Studies (Monash)

The Australian Research Council Key Centre in Transport Management

This paper examines Melbourne public transport needs, progress & promises



Needs

Progress?

Promises

Agenda

1. Introduction

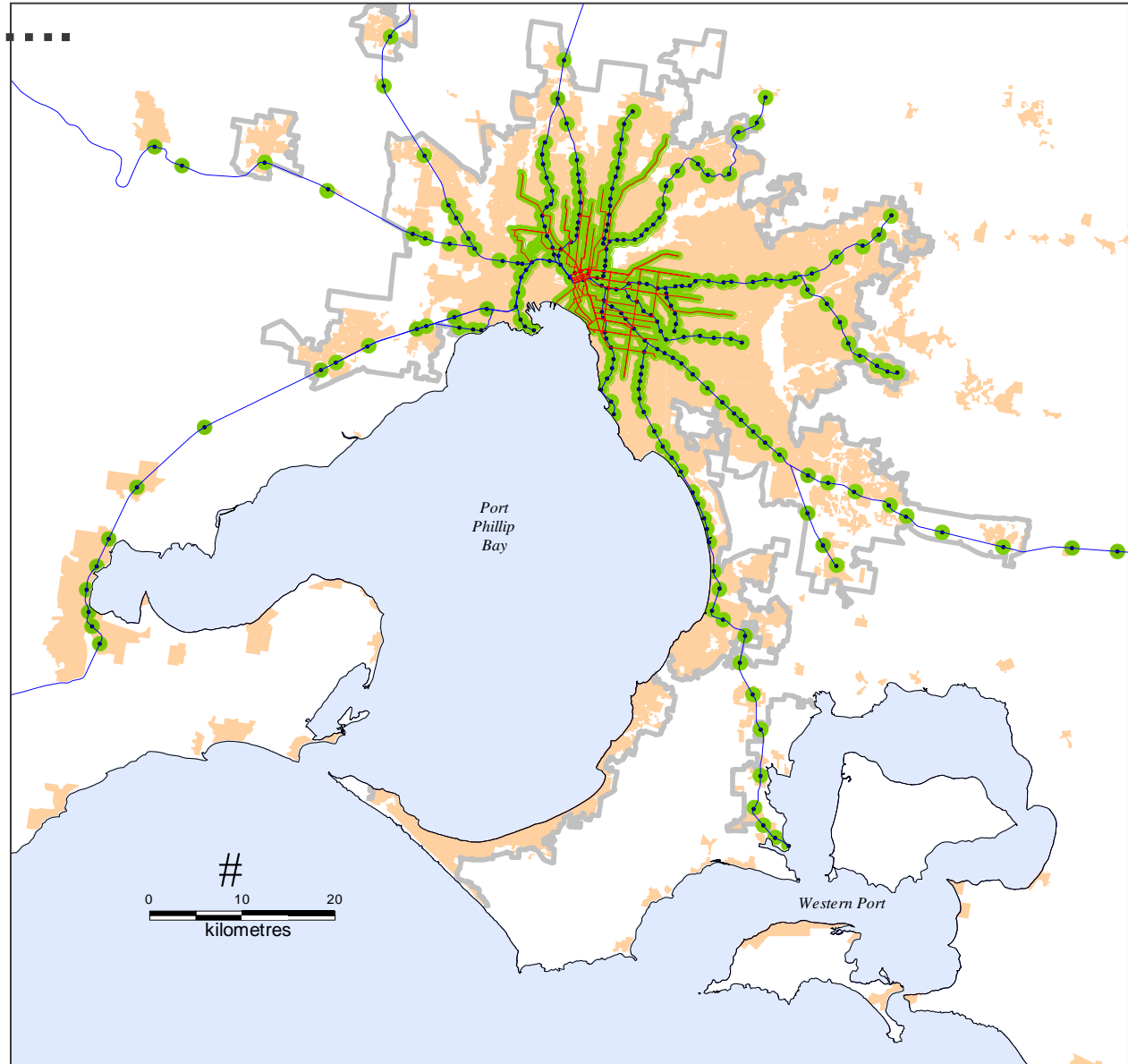
2. Needs

3. Progress?

4. Promises

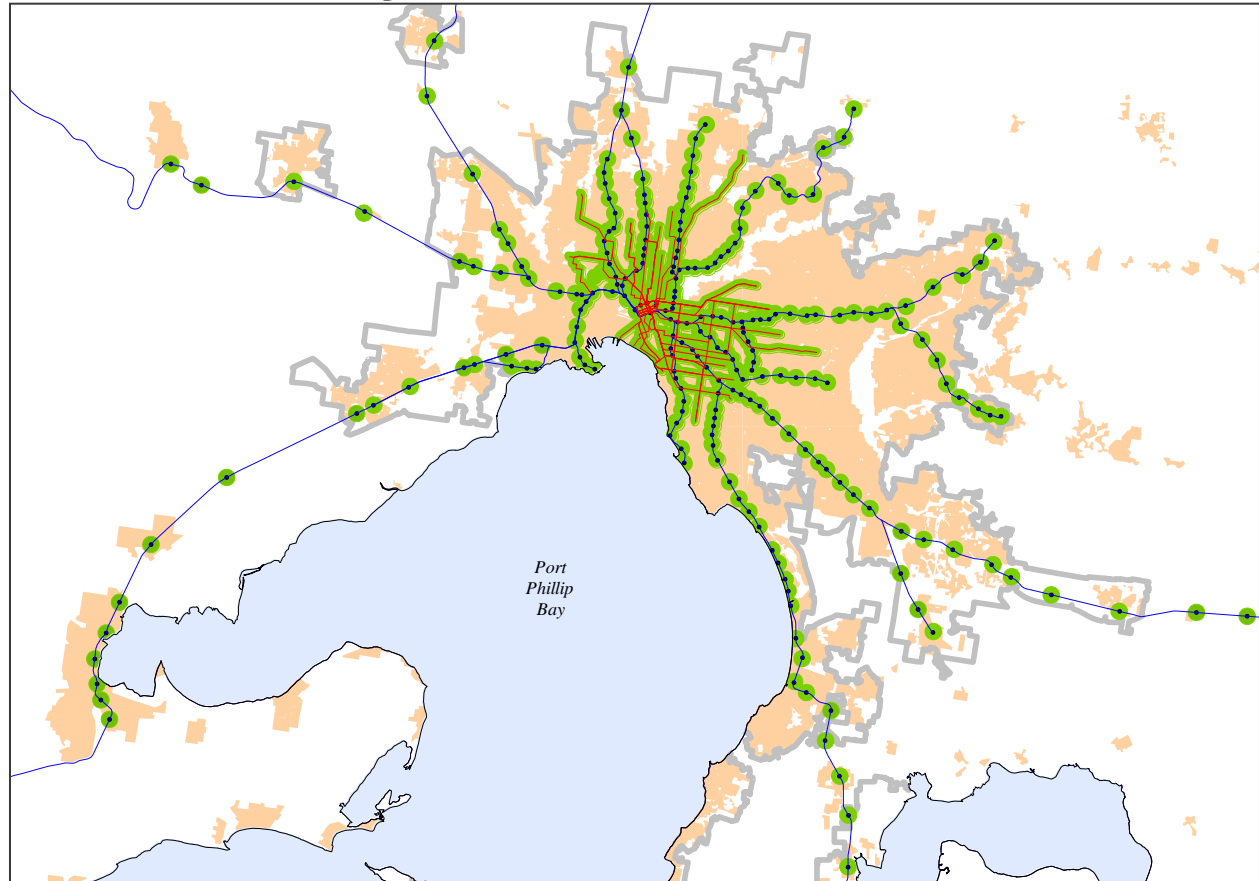
Buses ARE Melbourne's public transport for most residents, which is a problem....

- Over two thirds of Melbourne can only be serviced by bus
- 2.16M Melbournians lived in areas where bus was the only means of access to public transport.
- 0.98M lived within access distance of rail services



...because there aren't many

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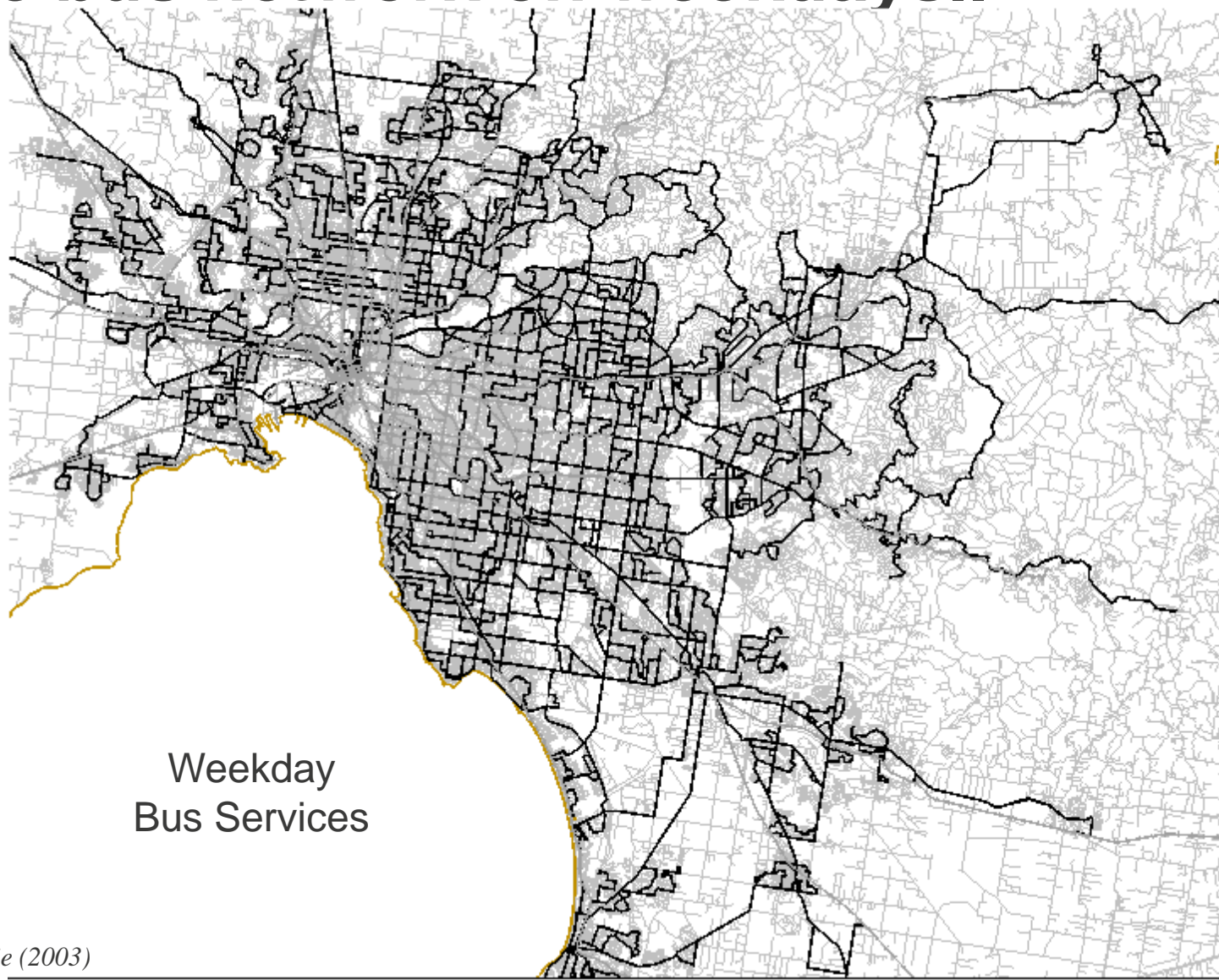
Weekday Service Frequency (2006)

	Peak	Off Peak
AV. MELBOURNE	40m	50m

Weekday Service Span

	Weekday
AV. MELBOURNE	06:46-18:53

The bus network on weekdays..



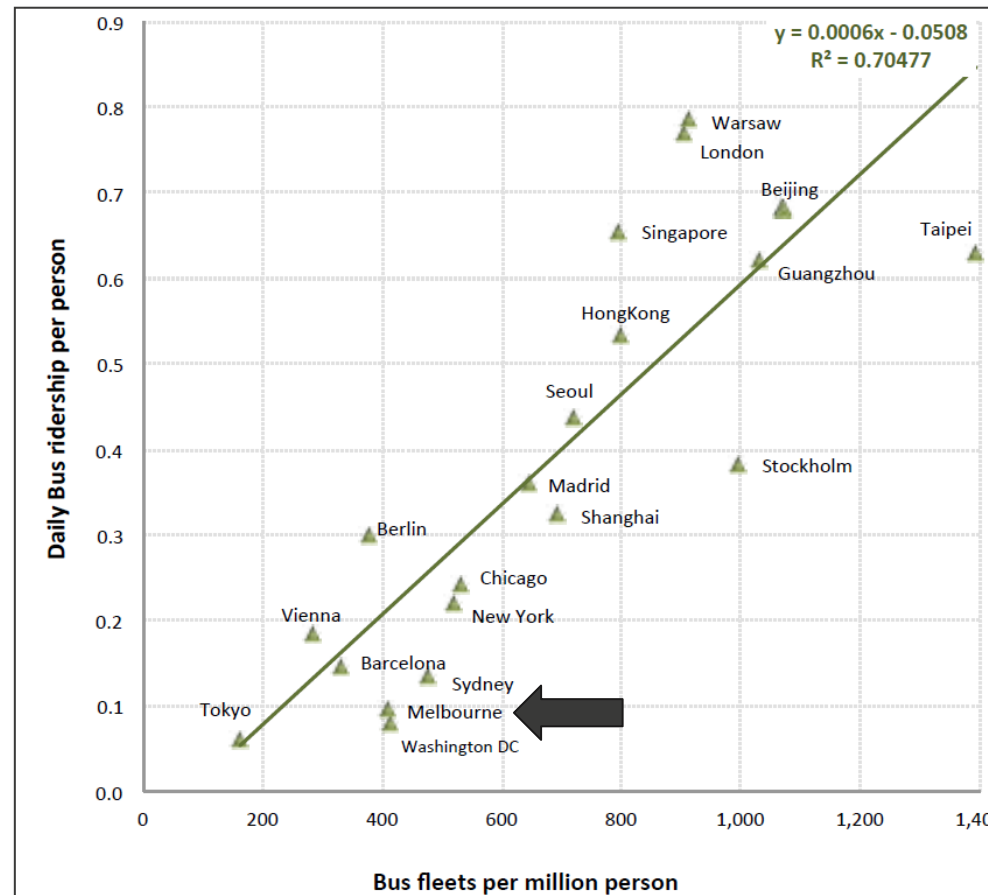
contrasts somewhat with weekends



sh)

Management |

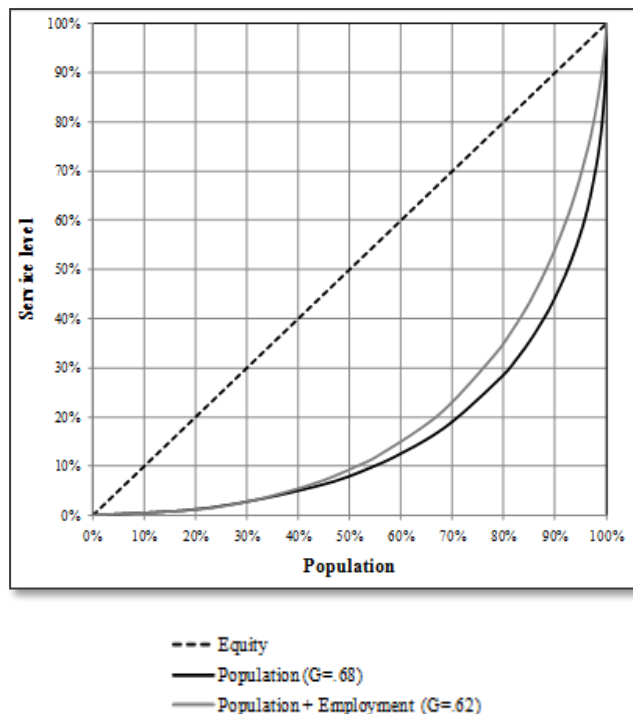
In general our bus service level is poor compared to world practice



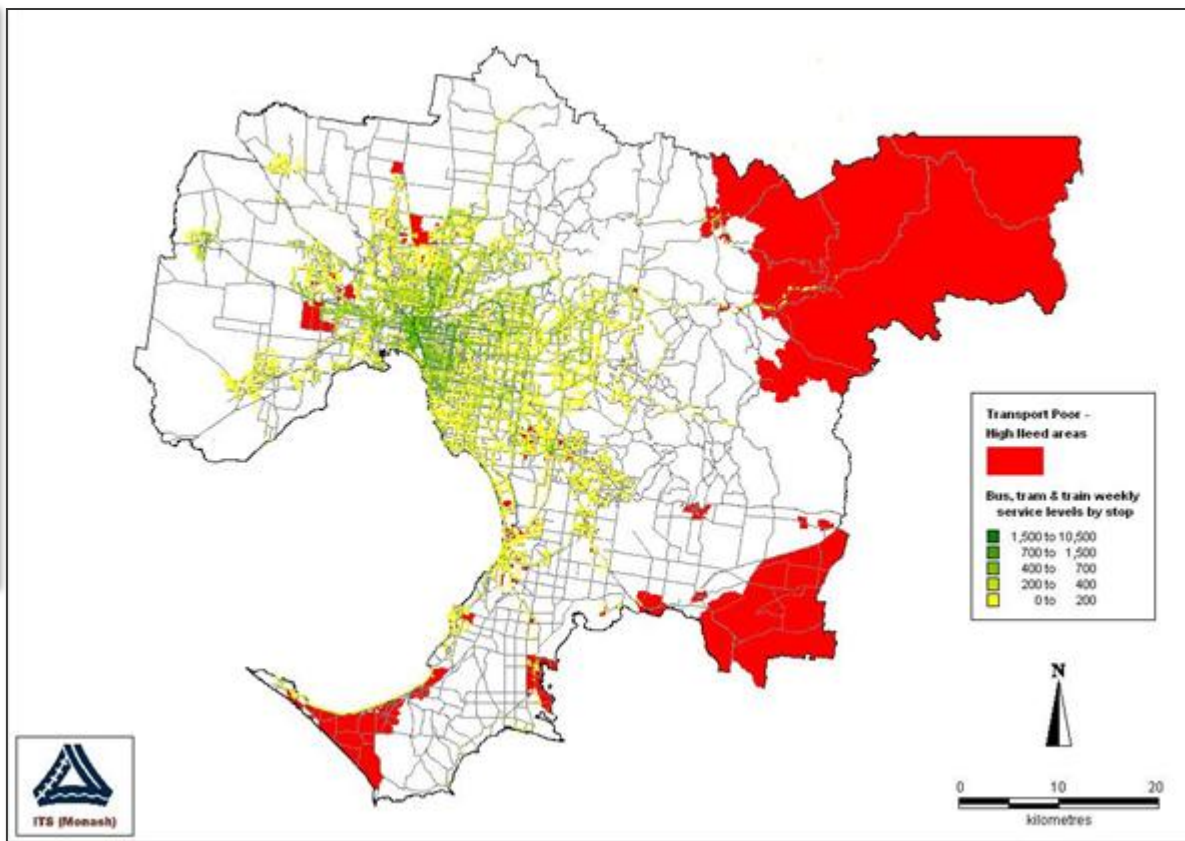
Source: Pan D (2013) 'Key Transport Statistics of World Cities' Journeys Sept 2013

Melbourne has BIG PT inequity as a result – many high need/no service areas

Service Supplied (Green) – Highest Social Need Areas (Red)



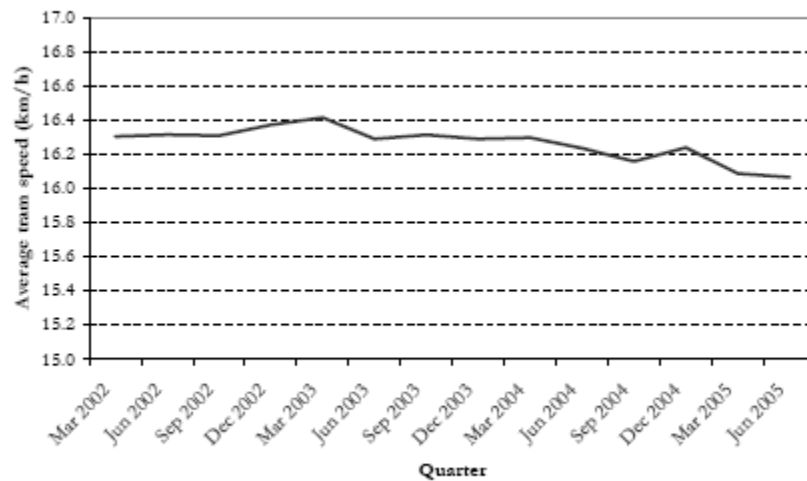
Source: Delbosc A and Currie, G. (2011) 'Using Lorenz Curves to Assess Public Transport Equity' JOURNAL OF TRANSPORT GEOGRAPHY Volume 19, Issue 6, November 2011, Pages 1252-1259



Source: Currie, G. (2010) Quantifying spatial gaps in public transport supply based on social needs, JOURNAL OF TRANSPORT GEOGRAPHY 18 (2010) 31-41

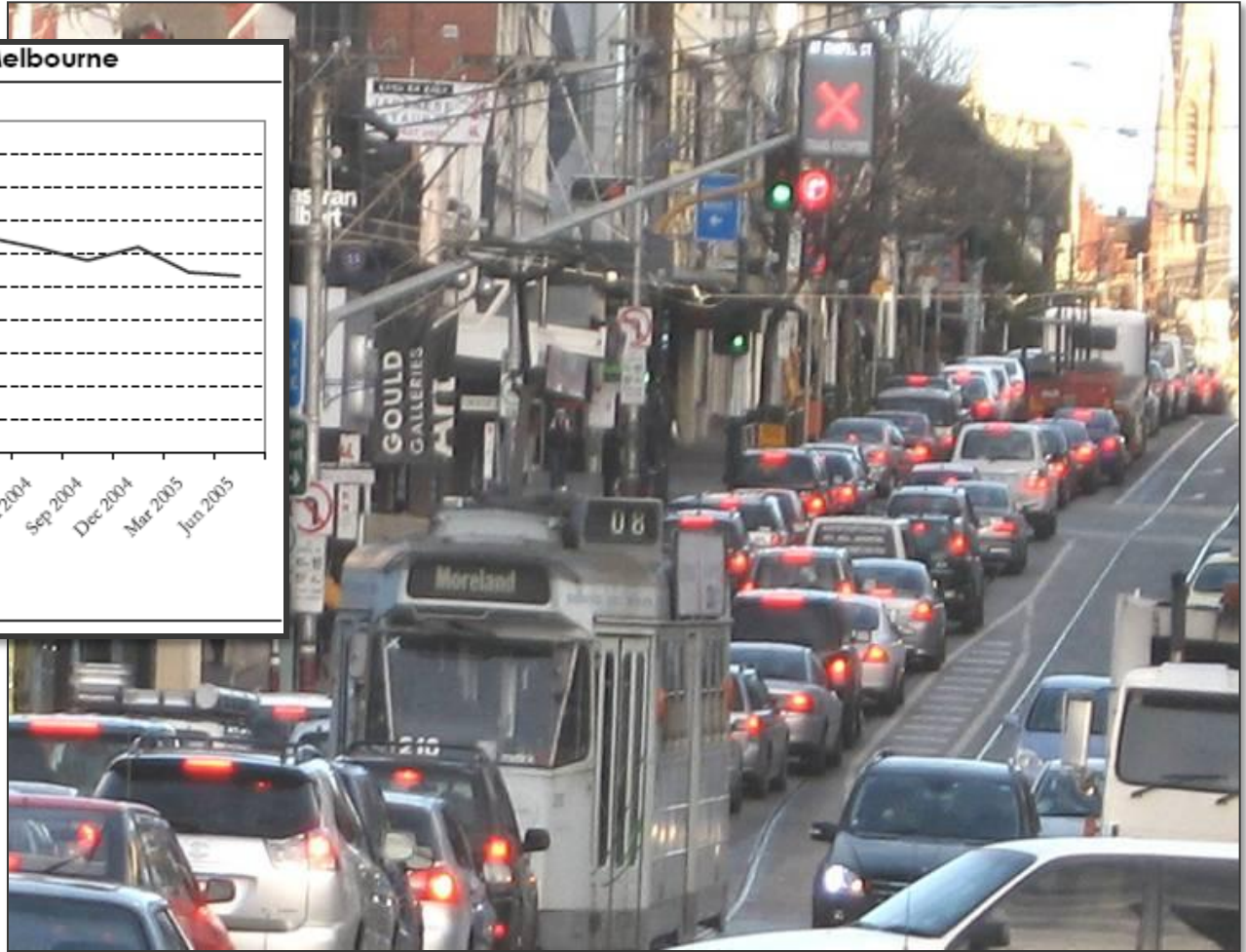
Tram services are struggling in growing traffic congestion

Figure 3.7 Average tram speeds in Melbourne

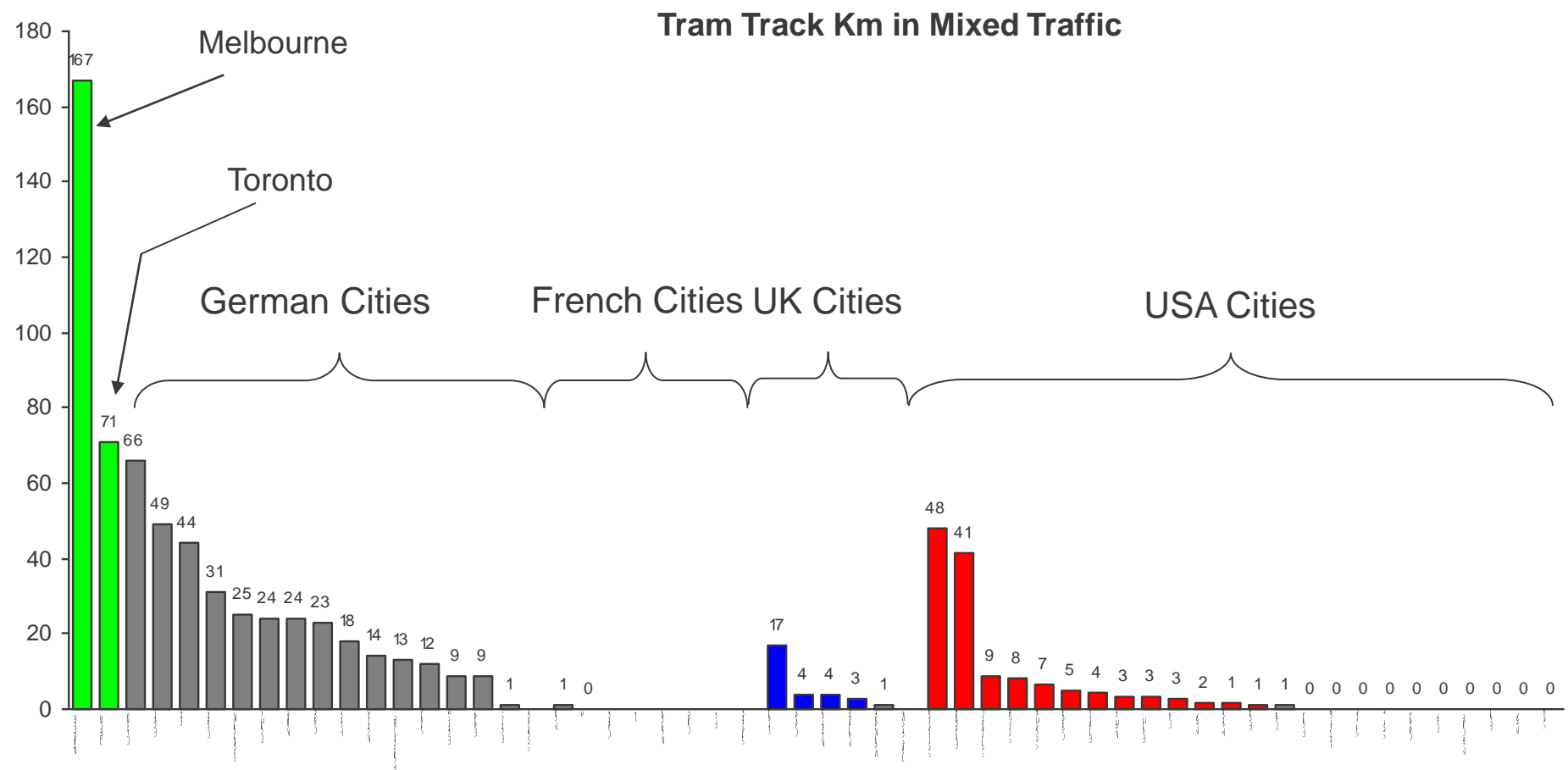


Source: DOI, sub. 55.

Source: VCEC (2006) *Inquiry into Managing Transport Congestion*



Melbourne is the worlds biggest “streetcar” system

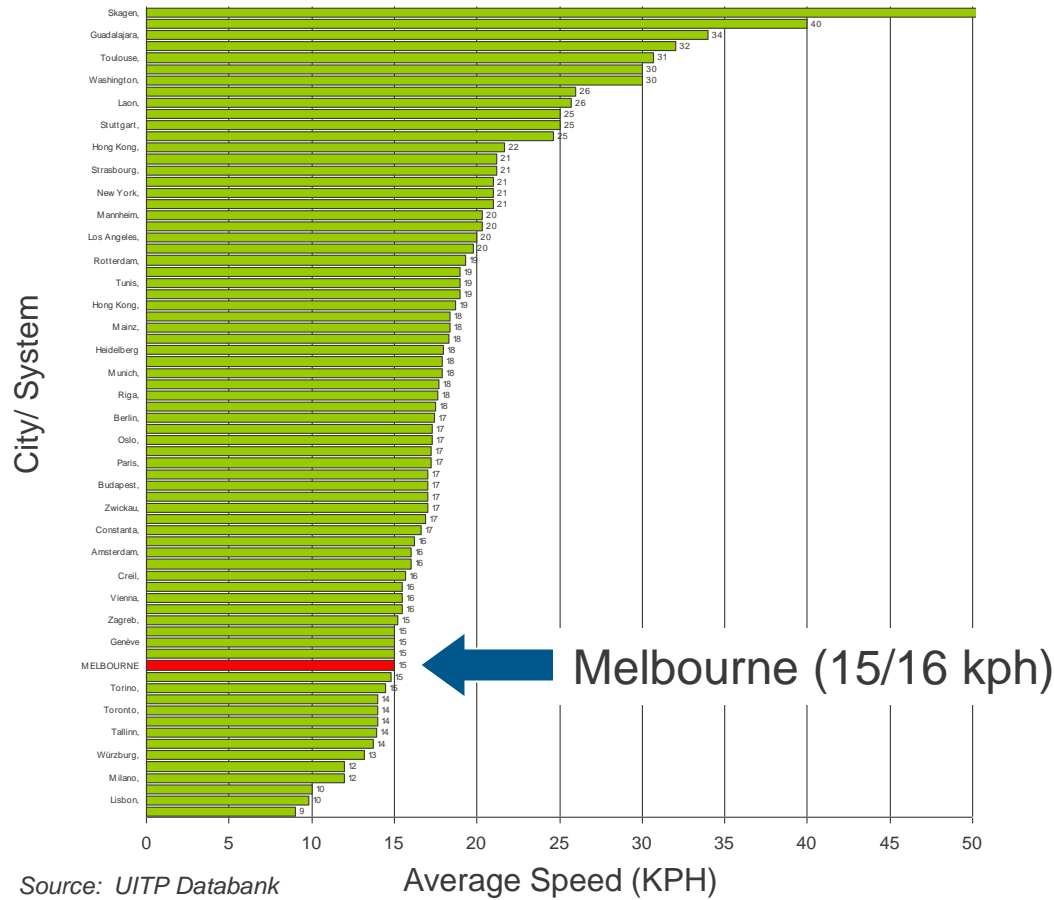


Source: Currie G and Shalaby A (2007) 'Success and Challenges in Modernising Streetcar Systems - Experience in Melbourne and Toronto' Transportation Research Record No 2006 Transportation Research Board Washington DC ISSN 0361-1981 pp 31-39 2007



Mixed Traffic service impedes performance

Average Operating Speeds – World Tram/Light Rail Systems



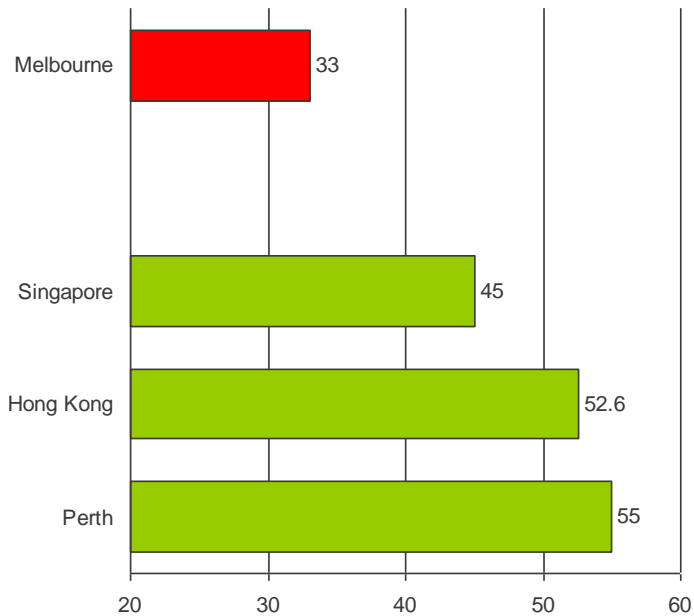
Melbourne Tram Reliability

- 33% of services are considered to be NOT running on time
- On time defined as arriving more than 1 min early of more than 6 mins late

Source: Track Record

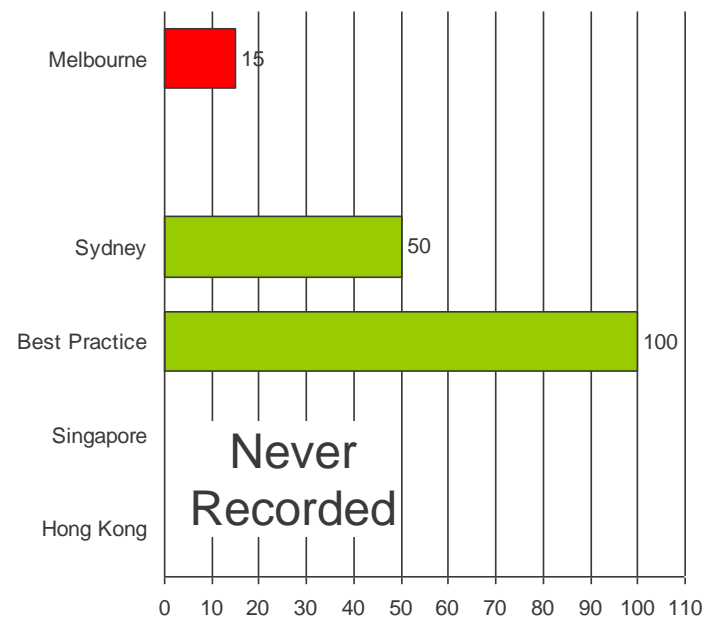
Our railway uses old infrastructure with poor resilience/reliability

Average Speed (Kph)



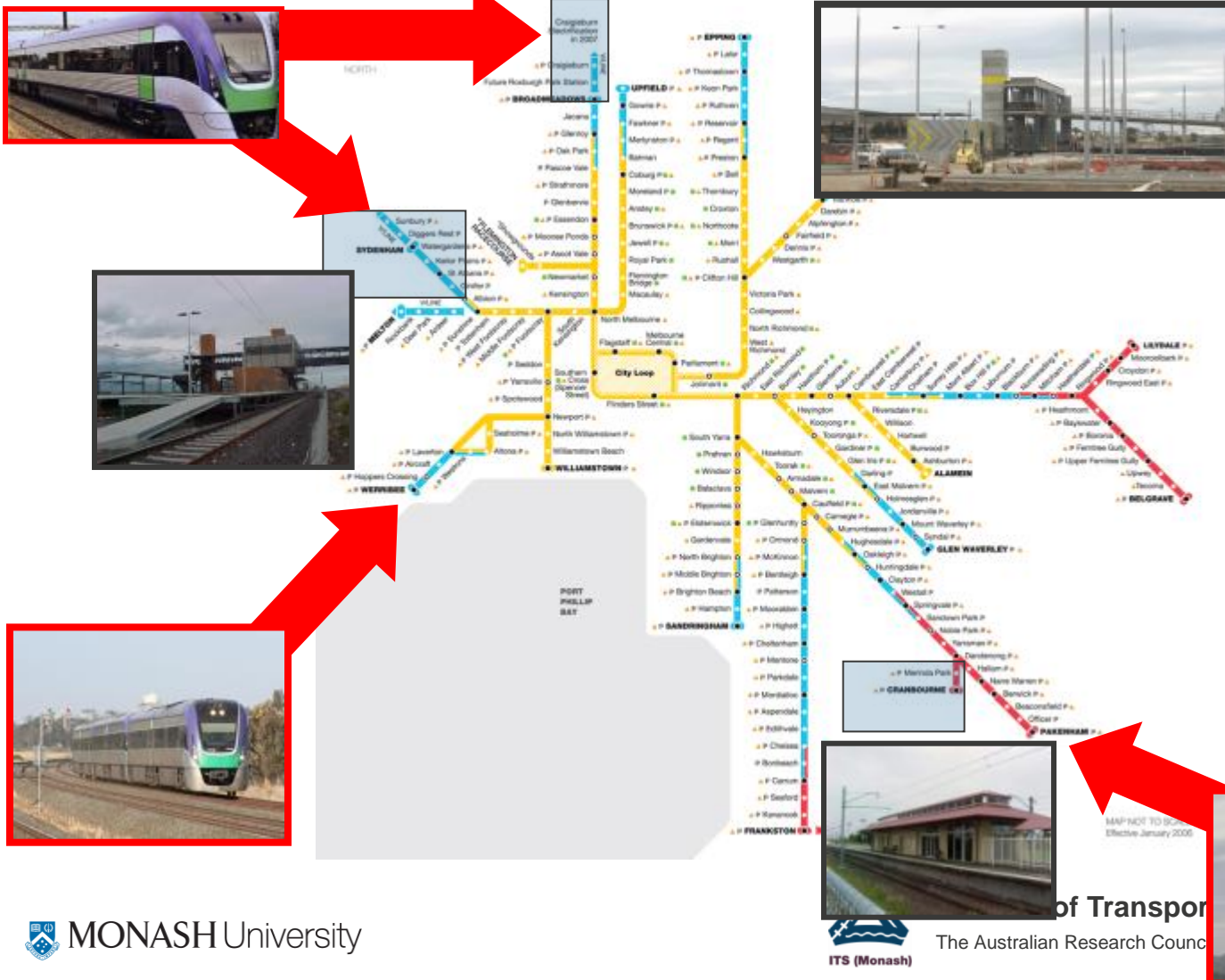
Av. Speed (Kph)

Breakdowns in Service (000 kms)

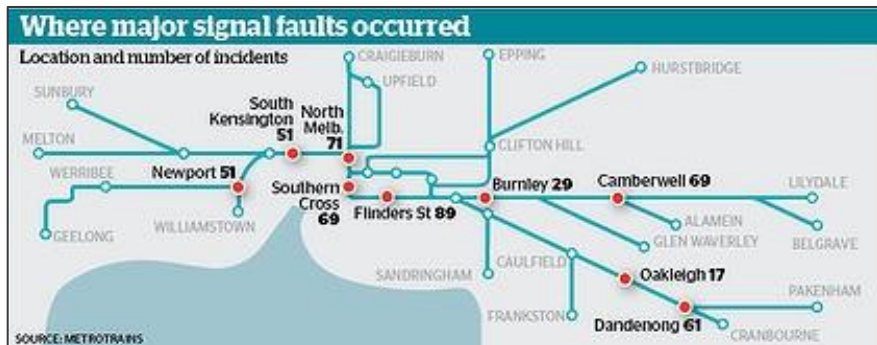


Av. Speed (Kph)

...yet expanding rail, thus making it more complex, has been our approach to mass transit expansion



Unplanned disruptions are common; e.g. reported signal faults; 1,900 p.a. (5+/day)



Reported Signaling Disruptions

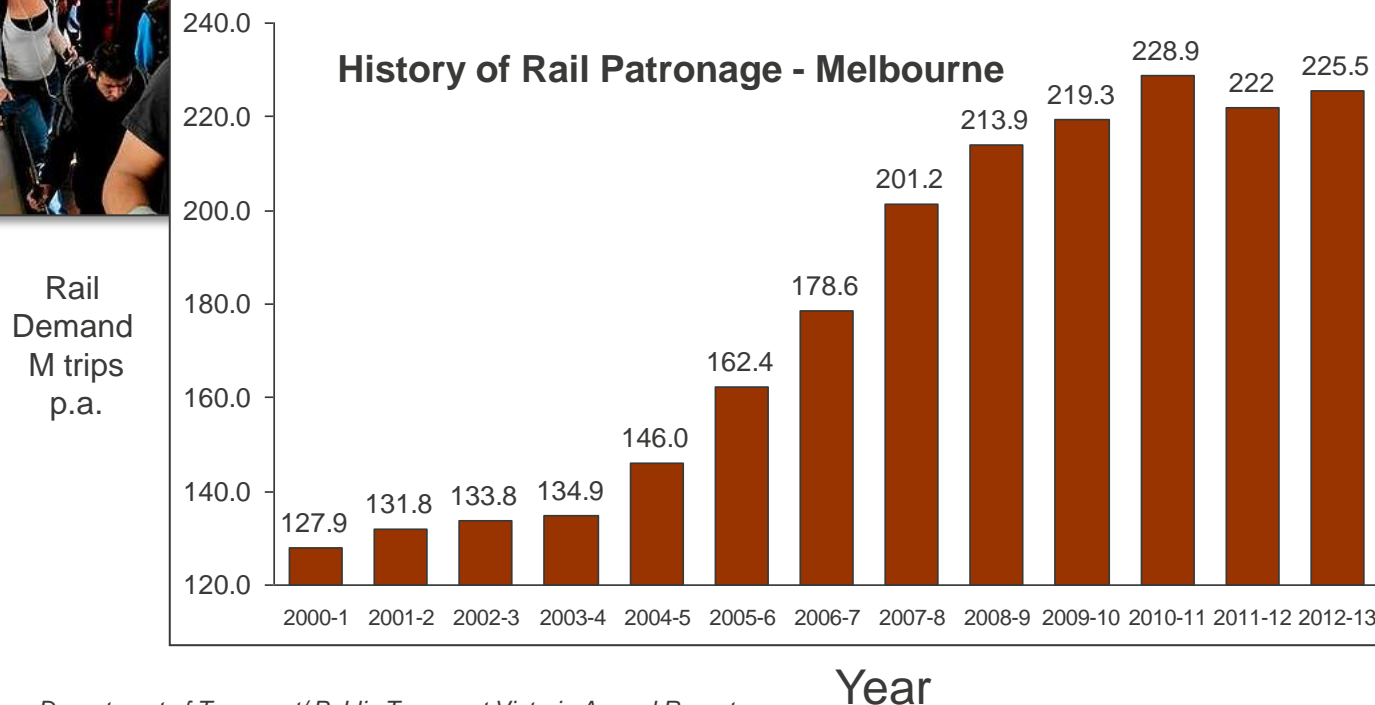
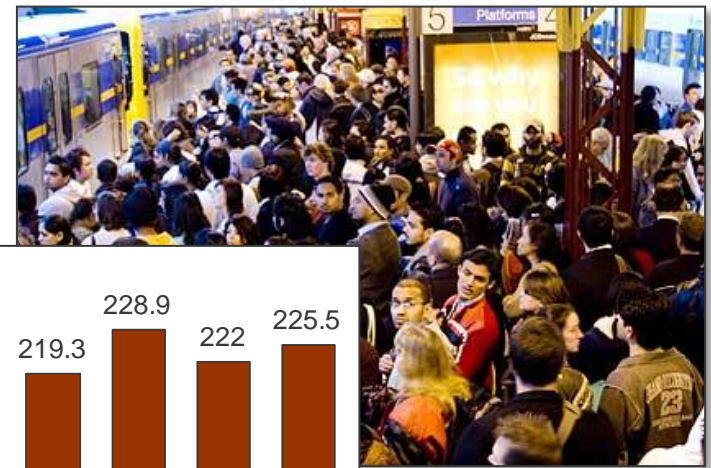
- 1,900 signal failures p.a. (12 months to August 2013)
- 5.2 per day
- **Biggest Locations:**
 - Flinders Street Station 89
 - North Melbourne 71
 - Newport 51

Metro Trains

"We are installing advanced computer technology which improves control of the signalling system, but our field equipment is outdated and requires replacing,"

Source: Adam Carey, The Age, 'Signal failures are causing chronic rail delays' 23/10/2013

Melbourne rail demand growth has been impressive by any standard; but overcrowding has grown with it



Source: Department of Transport/ Public Transport Victoria Annual Reports

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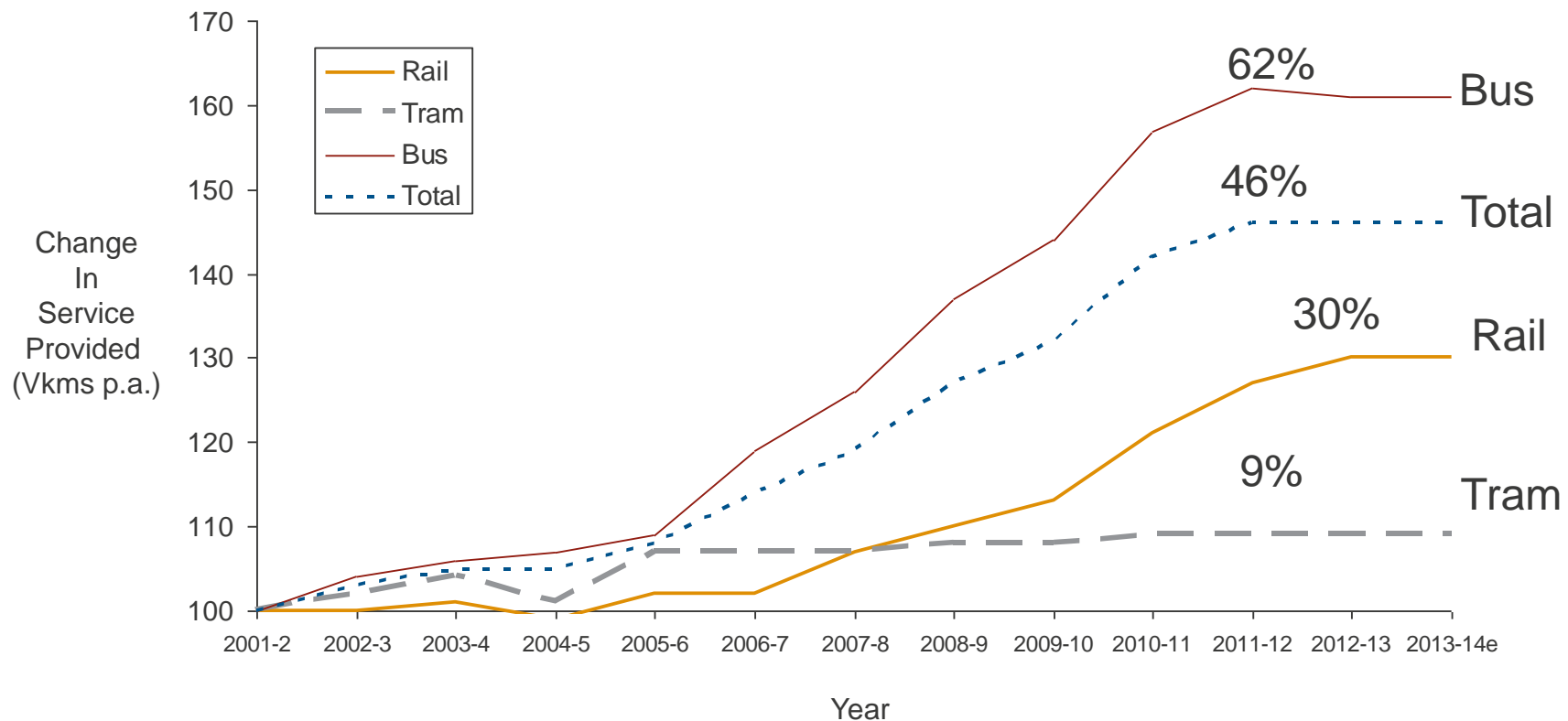
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Since 2001 PT service increased 46% (62% bus/ 30% rail)...

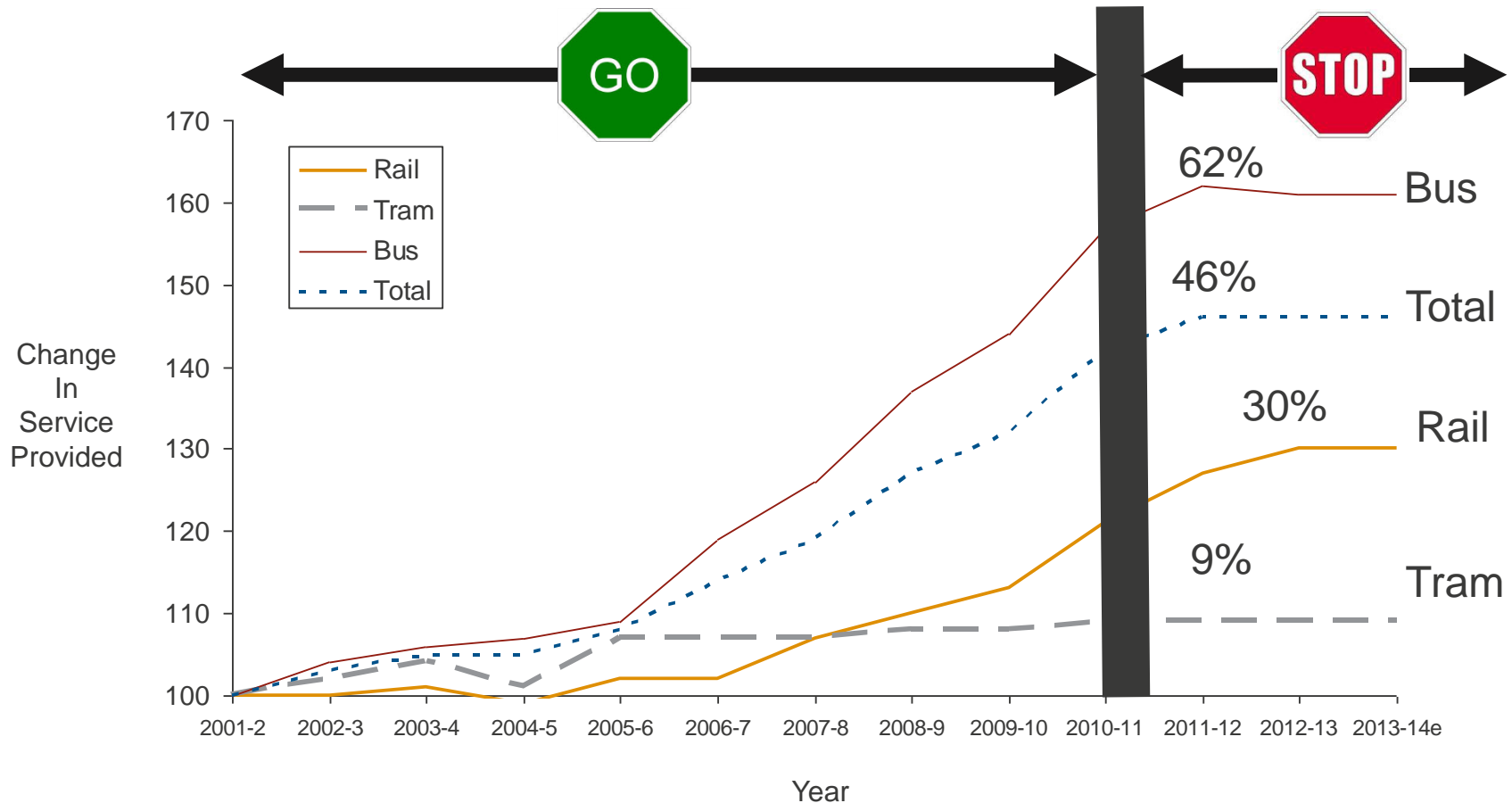
Change in Service Supplied - Melbourne



Source: Department of Transport/ Public Transport Victoria Annual Reports

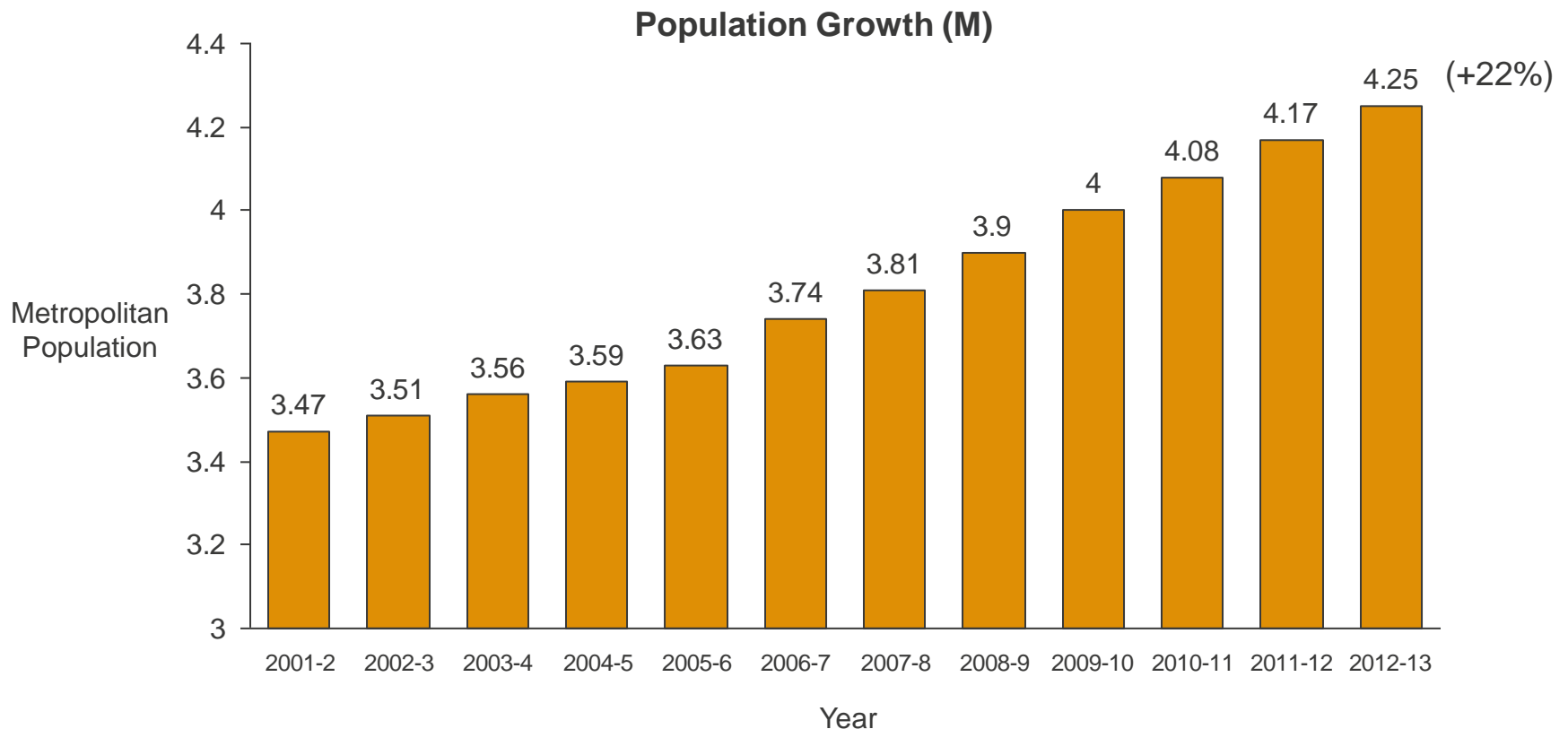
...BUT something happened in 2010; we went from GO to STOP in improved service...

Change in Service Supplied - Melbourne

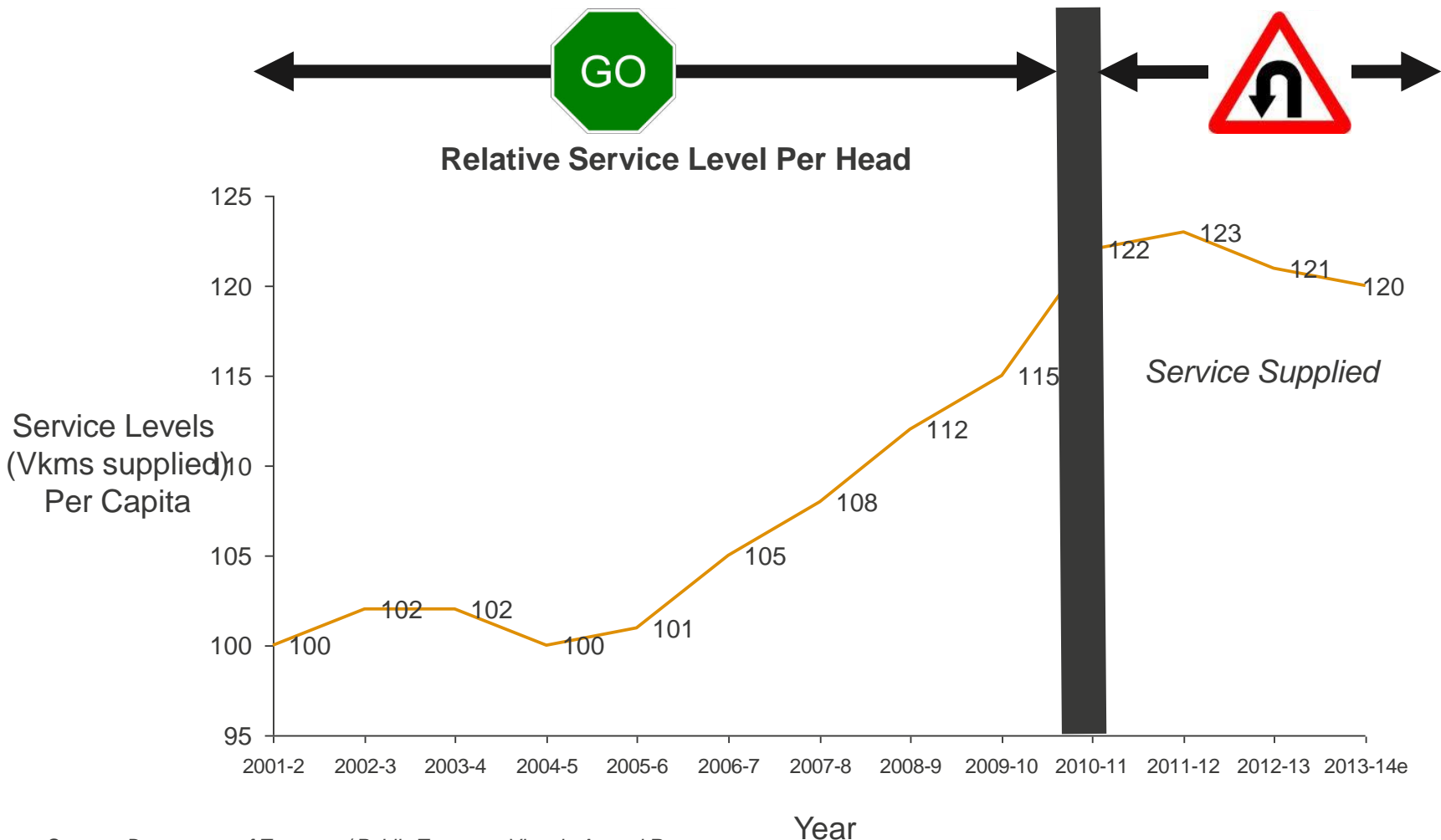


Source: Department of Transport/ Public Transport Victoria Annual Reports

...while Melbourne's population has been booming...



...per head of population, service has grown then declined



Source: Department of Transport/ Public Transport Victoria Annual Reports

Agenda

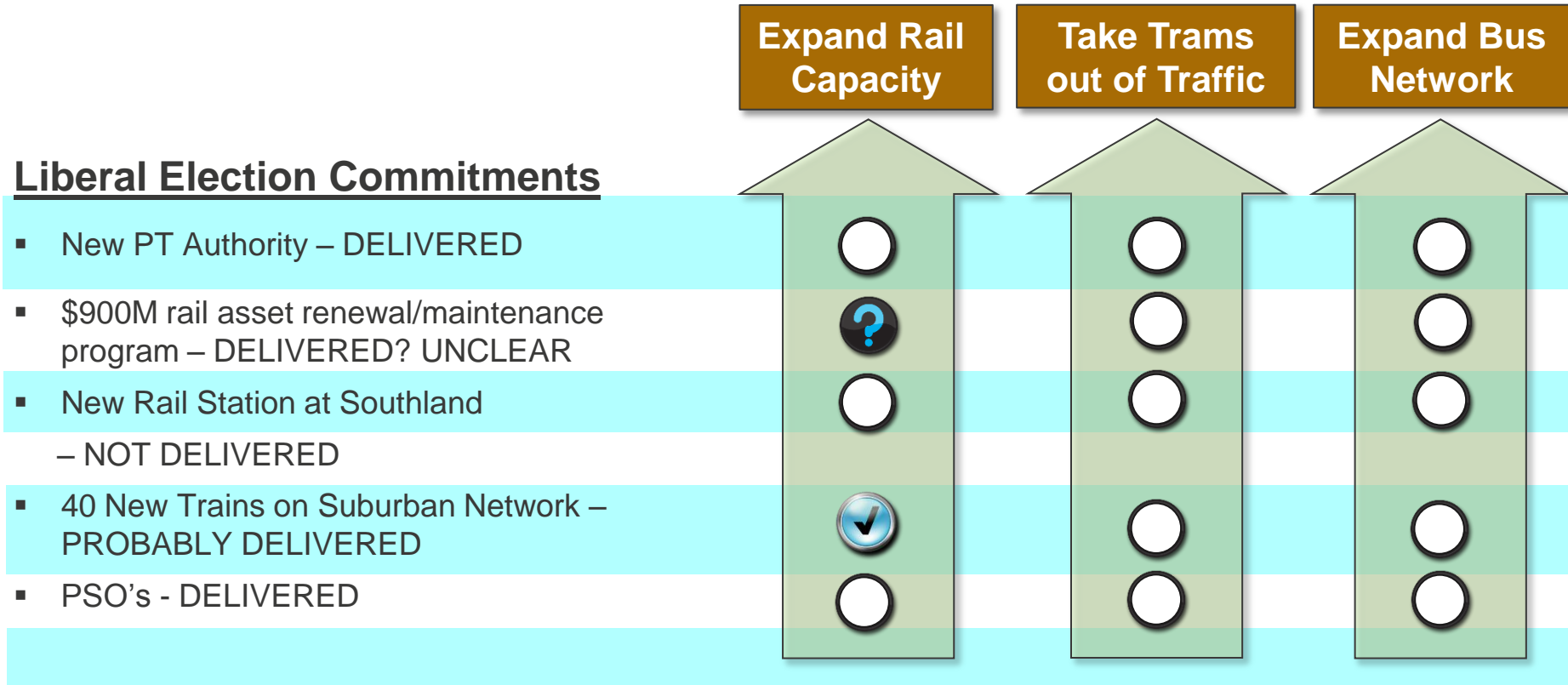
1. Introduction

2. Needs

























3. Progress?

4. Promises

How do PAST commitments match needs?



How do FUTURE commitments match needs?

	Expand Rail Capacity	Take Trams out of Traffic	Expand Bus Network
<u>Liberal Budget Commitments</u>			
▪ Melbourne Rail Link (Metro and Airport Rail Link) [2026]			
▪ Cranbourne-Pakenham Rail Corridor Project [2019] – (Level Crossing Removals)			
▪ [Lab/Lib] Regional Rail Link [2014-5]			
▪ Free Tram Zone; Zone1-2 Fare reduction [2015]			
<u>Plan Melbourne</u>			
▪ Lots of nice words but no commitments			
<u>Labor (Plan 10000)</u>			
▪ Melbourne Metro [?]			
▪ 50 level crossing removals			
▪ More station car parking			

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