

# Networked Transport NOW!

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# This presentation

- What is the problem?
- What is the solution – in principle?
- What's stopping us doing it?

# The 'now' problem

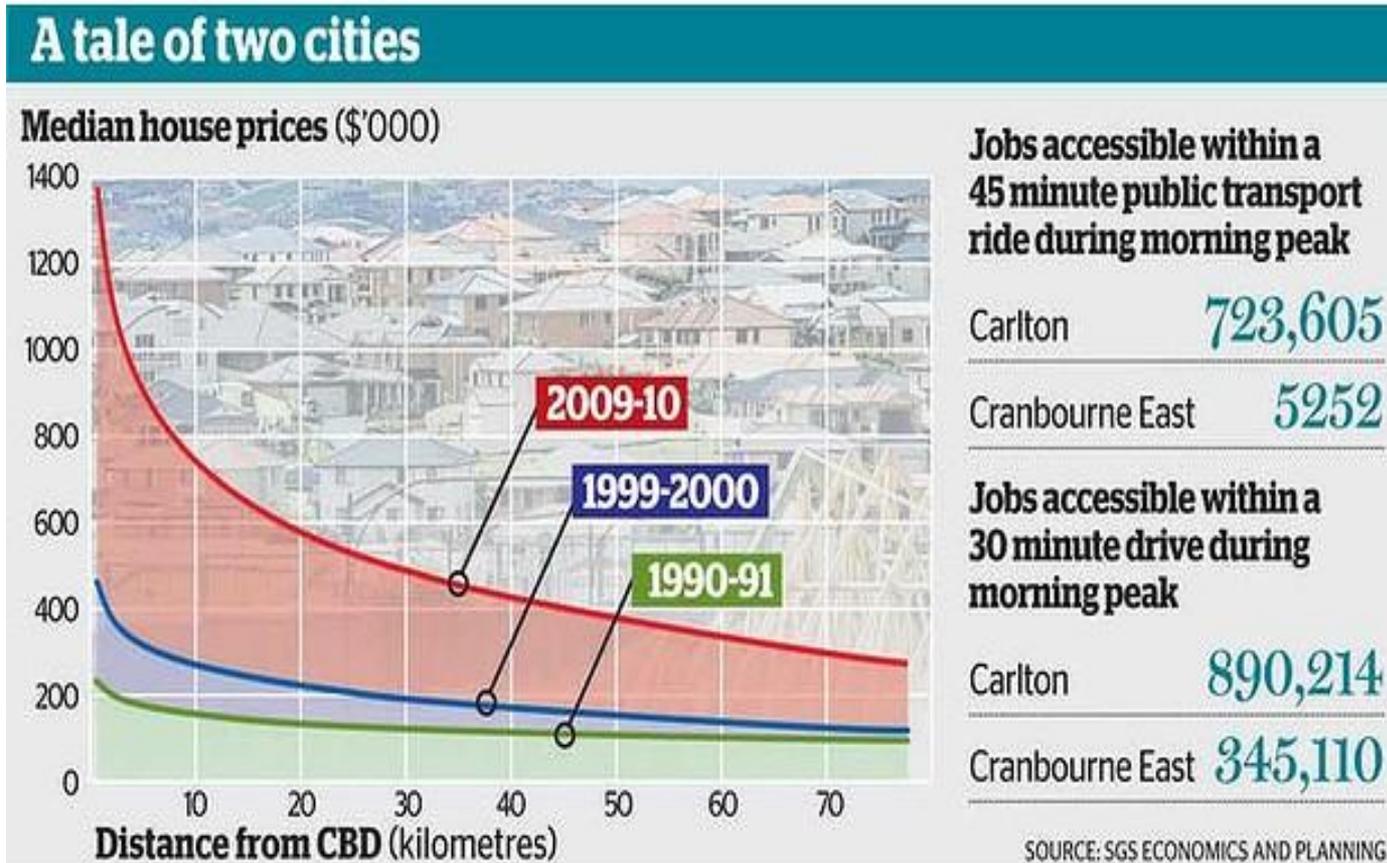
1. Highly unequal distribution of transport opportunities and costs,
2. Unbalanced transport investment,
3. Failure to integrate our transport modes so that they work efficiently as a single transport network.

# Where people live, and where they work (national census 2006)

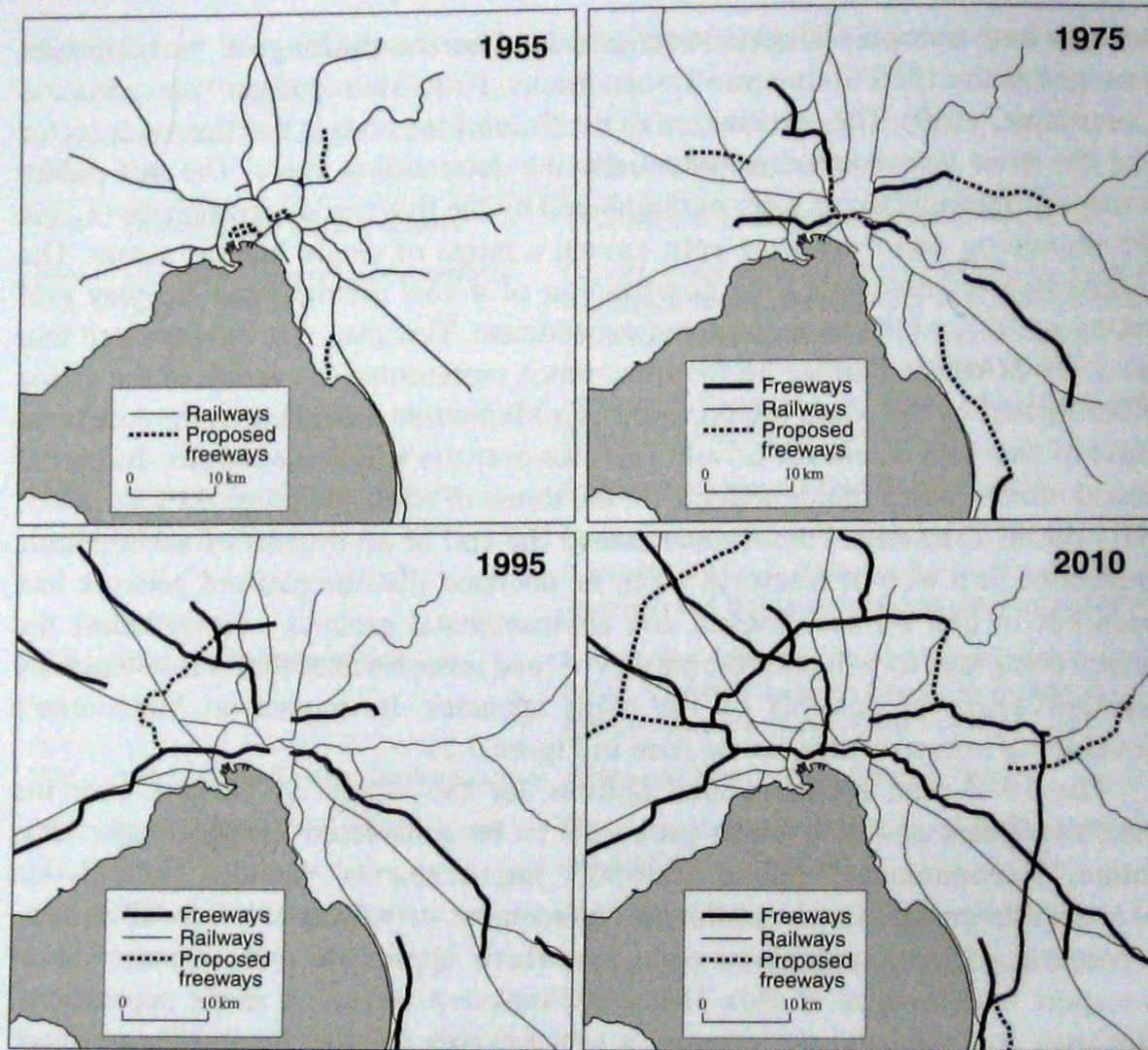
Locality (statistical local area)	Work in the locality	Work in neighbouring localities	Work in inner Melbourne	Work everywhere else around metropolitan Melbourne
WEST: Hobson's Bay/Altona	27%	22.%	21% (across Yarra)	30%
WEST: Wyndham North	30%	18%	18% (across Yarra)	33%
EAST: Manningham East	17%	31.%	11%	42%
EAST: Casey and Cranbourne	22%	38%	3%	38%

Figures are rounded to nearest percentage

# Uneven distribution of jobs, homes and transport



Spiller, Gibbins, Swan (SGS) Economics and Planning 2013



**Figure 7.1 Melbourne: Railways and freeways 1955–2010**

Unbalanced  
transport  
investment

Growth of  
Freeways and  
Railways in  
Melbourne  
1955-2010

Curtis, C and Low, N.P. (2012) *Institutional Barriers to Sustainable Transport*, Farnhame UK: Ashgate p. 86

# Numbers of cars on the road for work trips



—◆— Melbourne —■— Sydney —▲— Brisbane —×— Adelaide —×— Perth —●— Hobart —+— Canberra

**Figure 1: Numbers of cars on the road for work trips**

# The problem

- The problem governments have been trying to solve for fifty years is about car commuter traffic from outer Melbourne to the city.
- They constantly fail. But each episode of congestion leads to a demand to build more expensive motorways.
- **The real transport problem is everywhere else around metropolitan Melbourne.**
- **people are expected to travel long distances from where they live. But the transport connections between where they live and where they go for work and services, are pathetically inadequate and very expensive.**
- **There is no integrated planning for the location of residential areas and work/service locations and transport connections.**

# The lie

- Everyone knows that Governments have repeatedly justified motorway projects by saying they save time and relieve congestion.
- That lie has now been exposed by Maxwell Lay, writing in *The Age* newspaper (Oct 30<sup>th</sup>): ‘Opponents play the congestion card, arguing that previous projects have not eliminated congestion, forgetting that this was never their intent’.
- Lay, former Director of Major Projects at VicRoads and former Chair of the RACV should know: he is saying that **it was never the intent of projects like City Link to relieve congestion.**
- In fact, VicRoads figures show that traffic in the Melbourne area was moving slower after City Link and all its later accessories than before. Why? Because Melbourne just keeps growing. Spending vast amounts of money on motorways doesn’t solve congestion.

# The Transport Integration Act, 2010

- Section 11:
- ... The transport system and land use should be aligned, complementary and supportive and ensure that –
  - transport decisions are made having regard to the current and future impact on land use,
  - land use decisions are made having regard for the current and future development and operation of the transport system

# **The Transport Integration Act, 2010**

## **Section 12**

1. The transport system should facilitate network-wide efficient, coordinated and reliable movement of people and goods at all times.
- 2c. The transport system should – facilitate integrated and seamless travel within and between different modes of transport.

# Why then is it not happening?

- It's not lack of knowledge about how to solve the integration problem. The PTV transport planners are working on it.
- It's lack of funds and lack of political commitment to fix the real problem instead of building motorways.
- The motorway solution is now driving definition of the problem. It should be the other way about!

# What does network planning require: six basic conditions for effective public transport

1. What do the travellers want and value? 'Think like a (potential) passenger'.
2. There is no separate market for buses, trams, trains and cars. Think 'transport system'.
3. The public transport virtues: speed, reliability, better public health, environmental quality, and lower overall cost to the individual.
4. Combine different strengths of different **mechanized** modes with **movement on foot** (walking or cycling).
5. Simplicity, legibility, reliability and connectivity of timetables and routes are the key virtues to be achieved.
6. Transfers cannot be avoided. In fact they must be celebrated!

Source: HiTrans Best Practice Guide: public transport – planning the networks.

Photos from Zurich public transport network

# How can integrated transport principles be applied to dispersed cities like Melbourne?

- Mixed modes: exploiting the different quality and capacity aspects of the various modes.
- Easy and comfortable transfers between modes.
- A simple network with a clear line structure which is easy to learn and remember.
- Direct route alignment and fastest possible speed of vehicle operations with reliable timetables.
- High frequency services where and when the demand is reasonably high.
- Co-ordinated pulse timetables where the demand is weaker.
- Efficient pendulum lines running through city and suburban centres and major public transport interchanges connecting housing and work areas
- Supporting 'soft' measures such as fare structures, ticketing systems, information and marketing combined with restrictive policies towards car use.



# Funding for network planning?

- More, better and fully integrated bus services with revised routes and timetables (\$200 million per year, VAGO figure)
- Modernised signalling systems for the rail network (\$?)
- Revised ticketing system (\$?)
- Improved rail/bus interchange stations (\$?)
- Rail capital projects (\$6.2 billion VAGO figure)
- Road projects eliminating level crossings and removing truck traffic from residential streets (\$?)

# What are the barriers to implementing integrated transport?

- There is a policy mindset that says: people will always want to drive cars to work. Cars cause congestion. Cars run on roads. Therefore we need to build new, better, bigger roads to reduce congestion.
- The mindset also says: people will never switch to public transport. Public transport can never serve mobility needs in low density areas. Therefore public transport cannot relieve congestion.
- Every transport expert now knows that these beliefs are **WRONG!**
- Investment in the PT system will relieve congestion and save travel time. **WHY NOT TRY IT!**

# Institutional barriers

- The professional vision of most engineers is to build the most beautiful and functional object they can possibly build. Max Lay is right when he says, 'Melbourne in the past 50 years has produced some of the world's best motorway designs' (The Age, 30<sup>th</sup> Oct)
- Traditionally road infrastructure has been called 'investment', while supporting public transport has been 'a drain on the budget'.
- State institutions have been created that maximise investment in roads.
- There is a lack of political leadership. A future ALP government will build the Eastern Link because before the 2014 election the contracts will have been signed.

# To conclude

- We hear a lot about long term big project solutions.
- If we keep spending \$billions on motorway projects, we will never have the money to spend on network improvement and major rail projects. And spending for public health (waiting for hospital beds!) and education (TAFE cuts!) languishes.
- Major road projects get built relatively quickly while public transport infrastructure gets projected into the distant future, and never seem to arrive.
- **We need solutions that can be applied in the first term of a new government.**
- They are primarily public transport solutions using existing infrastructure. Address congestion and the public transport service across Melbourne.
- We do have the means if there is political will.