Transport for Melbourne Annual Forum August 2019

Ministerial Presentation

Summary of Proceedings

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October 2019

Executive Summary

This presentation includes a range of measures that could significantly improve transport outcomes in Melbourne in the short term ie over the next two or three years and could be developed as part of a twelve month rolling program well before many of the State government's "Big Build" infrastructure projects are completed. These measures are based on presentations made at the TfM forum held in August this year. Some of these can be implemented quickly at minimal or even no capital cost.

Opportunities for improving transport outcomes exist in many areas. Some are a response to long standing problems of a systemic nature that have plagued Melbourne for a long time and significantly limited its ability to emulate cities that had similar problems but overcame them and become exemplars of world best practice. Opportunities identified in this presentation are only a sample of what is possible however and have been developed by looking more critically at Melbourne's transport system; how it functions as a service industry and ways in which it can be improved as a whole in the interests of all Melbournians. A brief outline of the rationale is included In this presentation.

Three areas are of fundamental strategic importance and are where the most significant improvements can be achieved system wide:

1. Service disruptions to public transport
2. Priority on roads for buses and trams
3. Safety for promotion of active transport – principally cycling, but also public transport

Whilst there is no single measures that can be applied to the above, a number of actions have been identified below that will make a significant difference and can provide the foundation for a twelve month rolling program.

The following are recommended and provide opportunity for greatest improvement quickly and system wide.

1. Service Disruptions

- Changing contract arrangements to ensure all track related scheduled maintenance is carried out at night in a way that does not compromise passenger services
- Introduction of higher maintenance standards (ie planned preventative maintenance) to ensure out of schedule break downs do not occur In the first place
- Capital works projects be designed and staged in a way that achieves the same objective

The impact of service disruptions on passengers can be severe and quickly result in loss of patronage. Once lost they are unlikely to return even if service disruptions are resolved (often making alternative travel arrangements such as buying a car and relocating to another location where they become car dependent).

The Victorian Railways had a long history of ensuring their passengers came first and that services were not compromised by maintenance or capital works activities. This ethos is applied in all successful customer service business if they want to survive in a highly competitive market environment. In the case of the railways such activities were carried out at night after the last train and finished before the first train the following morning and railway engineers were very skilled in ensuring this work did not compromise passenger services.

This ethos has changed and maintenance and construction activities are now carried out in a way that causes significant disruption to passenger services on a regular basis, often resulting in closure of whole lines or parts

of lines (metropolitan and regional) for extended periods of time. Bus replacements are a poor substitute and for many an unacceptable substitute for the rail service.

Continuation of such performance will limit the capacity of the PT system to function as an integrated transport network and result in more motor vehicle traffic, putting more pressure on the road system (which in turn crowds out more efficient transport modes ie active and road based public transport), generating more carbon emissions, higher accident/casualty rates and increased health costs from noise and air pollution.

2. **Traffic signal adjustments to provide priority on roads to buses and trams**.

This was the subject of the Think Tram project but needs to be revived and extended to buses.

This task has been the responsibility of VicRoads and carried out by skilled engineers/technicians but TfM have been advised that most traffic signals have not been checked for some years because of staff shortages. The cost of redeploying and training engineering staff for this purpose or even recruitment to cover the shortfall is minimal but the benefits are substantial and could be realized quickly.

It is recognized that tram and bus priority requires several measures for successful implementation but traffic signalization is the cornerstone of such a program and requires regular monitoring and review to ensure implementation works are successful and remain successful as traffic conditions change over time.

Effective tram and bus priority is critical for a world class integrated public transport service. The bus is for most people in Melbourne their only form of public transport and should be the glue that ties the whole network together.

3. **Road safety for active transport**

- Climate setting and leadership by government and local governments
- Public education and promotion by government and local governments
- Collaboration and partnerships with local governments to progress cycling as a key priority in local government transport plans
- New policies on road space allocation – to provide safer and priority lanes for active (and public transport)

Improving conditions (principally safety related) to promote cycling as a legitimate travel mode offers the greatest potential to improve transport outcomes quickly at least cost for the benefit of all Melburnians and Victorians generally.

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Summary of Proceedings

Introduction

This forum was designed to provide ideas on how transport outcomes could be improved quickly in the very short term before any benefits from Government's Big Build infrastructure projects could be realized ie particularly between now and the next election but also beyond.

This comes at a time when the Australian and global economy is coming under increasing pressure. Wages are stagnating whilst living costs continue to rise and household debt remains high. In this environment the community will be looking for more transport options – typically lower cost options to meet their transport needs. The prospect of recession or worse has been mooted for some years. It is argued that technically Australia may already be in one and there are concerns that it may become part of much deeper global downturn that will put increasing pressure on government finances and the need to do more with less. Declining stamp duty and GST revenues for the States may be an omen with worse to come.

It is also in an environment in which an increasing number of new issues are emerging such waste and other environmental pressures (including climate change and the need to reduce carbon emissions), security of water and power supply and a growing array of social and community issues that will compete with transport for government funding.

These will be critical issues for voters at the next election.

This forum has been a response to this situation. Speakers were requested to identify ways in which this could be achieved, focusing on transport modes that are efficient movers of people, place less demand on transport infrastructure and are less costly for travelers themselves – typically public and active transport (walking and cycling). The cost and speed of implementation of measures proposed varies significantly. Some can be implemented almost immediately at minimal or even no cost. Some will require training and procedural change. Others require planning, investment in technology, capital equipment and some infrastructure renewal or upgrading. The list of opportunities is large and provides benefits system wide in a way that improves not only transport outcomes but has wider implications in terms of liveability, public health, environmental as well as economic that apply more broadly one way or another to all Melburnians and Victorians more generally.

It must be stressed that the list of recommendations is merely an introduction to what is possible – there are many more and deserves a detailed review. This would justify a detailed plan to evaluate and develop priorities.

Forum Rationale

The forum highlights some fundamental issues.

Firstly at a given point in time the stock of public transport infrastructure is fixed.

There is therefore an imperative to use it as efficiently and effectively as possible. This in turn puts the focus on transport modes that use it most efficiently – typically public and active transport.

It is also a reminder that infrastructure costs money to maintain and manage – the more we build the greater the costs of servicing and maintenance etc.

Secondly, transport is a service industry in which public and active transport operate in a very competitive market environment. It follows that efficient people movers such as public and active transport must win patronage on merit; that is by providing a "service" that makes them competitive to the private car for more trips. Factors that are important in this regard are essentially customer service issues such as network coverage, reliability, safety, convenience, accessibility, frequency, speed/travel time, cost, comfort, and so on.

It follows that if more efficient modes of transport are to be successful these are the kinds of issues that need to be addressed and require programs to target them.
For example

- a plan to improve public and active transport networks
- a speed up plan for trams trains and buses
- a reliability plan to eliminate public transport service disruptions and delays
- a service integration plan for all modes of public transport and active transport
- a safety plan, for all modes, but particularly for active and public transport
- a public transport customer information plan and so on

Achieving this will require the creation of an environment in which they can do this supported by a customer service plan to make it happen such as

- an accessibility plan for public and active transport
- a service plan for public transport (reflected by a timetable for the public transport network as a whole)
- other plans to support the above such as
    - an operational plan to ensure services are run as efficiently and effectively as possible, and most importantly
    - a maintenance plan designed to eliminate service break downs during the maintenance cycle in a way that does not compromise users of public or active transport

and

- recruitment and training plans to improve departmental skills and capacity to design, develop, implement and administer such plans

- data recording and reporting plan to provide the basis for establishing goals and benchmarks, and to monitor progress to ensure each plan is achieving desired outcomes.
- plans to respond to broader environmental and social and public health and safety issues such as reduction of greenhouse emissions[1] and noise and particulate pollution and traffic safety.

It is recognized that many of the above may already exist in various forms within the Department.

The concept of service as an essential part of a business plan is not new. It is "service" that drives successful businesses and service based organisations today and provides a catalyst for innovation and being smarter in the way services are delivered. Successful service organisations do this as a routine part of their business plan; a plan that is driven by key aims and objectives and is embedded in the organisation's culture. Without this they will not adapt in a constantly changing world and most likely fail. Successful businesses also recognize the importance of implementing such a plan as efficiently and cost effectively as possible. The same imperative applies to government services in an environment in which the entire community is the stakeholder.

A number of recommendations have been summarized in the following table based on speed of implementation, cost, ease of implementation and scale of benefits realized.

[1] IFM Investors which manages funds on behalf of the nation's industry super funds is now setting emission reduction targets across all its major local assets, and expects these reductions will be achieved through a combination of solar generation, building, lighting, transport efficiency and other energy efficiency projects.

Public Transport Customer Service Issues

Ref charts provided by Prof Graham Currie summarized roughly in tabular form below

Service Issue General Ranking	PT Issue Importance	PT Issue Importance (on scale of 3.5-6.5) Note: all scored between 6.4 – 5.6)	PT Issue Performance (on scale of 3.5-6.5)
1	Safe at night	6.4 Highest	4.5 Worst – v poor
2	Reliability	6.3 Second highest	5.2 poor
3	Frequency	6.25	5.0 poor
4	Safe during day	6.4	5.4
5	PT available where and when needed	6.1	5.0 poor
6	Deal with disruptions quickly	6.2	4.5 V poor
7	Get to stops/stations		
8	Quality of service	6.0	4.5 V poor
9	Make connections	6.0	5.0 poor
10	Available on weekends	6.2	
11	Get information about PT		
12	Disruptions don't happen often	6.0	4.8 Very poor
13	Meet costs	5.9	5.0 poor
14	Information to plan journey	6.0	
15	People I care for can use it safely	6.2	4.6 Poor
16	Available at night	5.8	
17	Ease of buying/using a ticket	6.1	
18	Over crowding	5.9	
19	Staff courteous and friendly		
20	Physical access	5.8	
21	Can make trips to new places on PT		
22	Travel time compared to car	5.7	4.3 V poor

Source: Currie G Delbosc
A (2015) Variation I Perceptions of Urban Public Transport
Between International Cities Using Spiral Plot Analysis
TRANSPORTATION RESEARCH RECORD
No 2538 on pages 54- 64

Observations

Most critical customer service issues listed above are also ranked lowest in terms of customer satisfaction ie

- safety, particularly at night
- reliability
- frequency

but impact of disruptions (most are maintenance or construction related), frequency and ability to deal with disruptions also poor and general rating of service quality and competitiveness of PT vs car in terms of travel time is poor. These are critical for any service- based industry to survive. If PT is to win market share at the expense of the motor car these (as well as others listed) will need to be addressed.

The ratings provided above are useful for establishing priority programs to address key service issues.

Bus Passenger Opinions on Bus Improvement Priorities

Source: Smart Bus project. Passenger and local community research (YCHM.Nov 1999)

Note Scores range from 1-7

Category	Improvement options	Individual score	Average score
Reliability	• Buses arriving and departing on time	6.22	
	• Buses connecting well with other transport services	6.10	6.16
Temporal service coverage	• Weekend services provided	5.93	
	• Buses operating until late on weekends	5.49	5.71
Frequency	• Buses running more often in peak hours	5.23	5.23
Information	• Improved customer information at bus stops	5.27	
	• Customer information buttons at stops	4.52	4.90
Safety	• Safer pedestrian crossings at bus stops	4.85	
	• Lighting and video surveillance at bus stops	4.43	4.64
Comfort	• Improved shelter and seating at bus stops	5.06	
	• Making it easier to get on and off buses	4.04	4.56
Speed	• Bus trips take less time	4.11	4.11
Spatial service coverage	• Bus services operating closer to home	4.14	
	• Buses operating to new destinations	3.27	3.71

It should be noted that customer service ratings in both tables above are of a general nature and that people's needs vary depending on the purpose and nature of the trip, time of day or year and so on and the person making the trip – ie age, health/fitness, gender, socio economic status, availability of alternative options, even the weather and other criteria that must be met that determine their mode choice for each trip. This highlights the need for more research on different market segments to help determine how services can be better designed, operated, priced and promoted to meet peoples' needs. It is particularly important that these surveys include non PT travelers who comprise the majority of travelers – not only to find out what service issues are important but also what is necessary for them to switch modes to PT (or even active transport).

Capacity to respond to increased demand

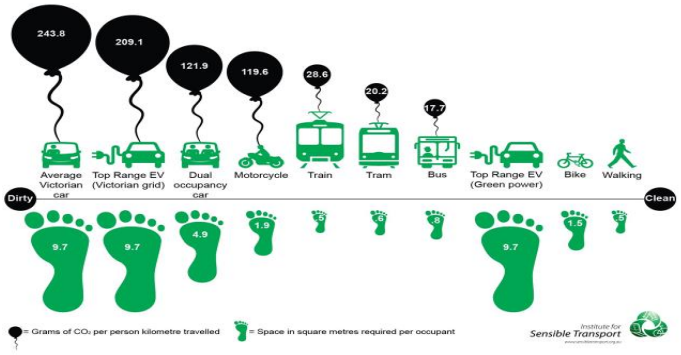
Whilst some PT services (particularly on some rail and tram routes) are well patronized or even overcrowded, many are underutilized – particularly buses. Providing increased service capacity is important and can be addressed by running more services, but patronage and fare revenue can also be

increased by operating services in ways that better meet passengers needs more effectively and efficiently ie without the need for additional capital cost. Speed up programs for buses and trams are a good example, but there are many others.

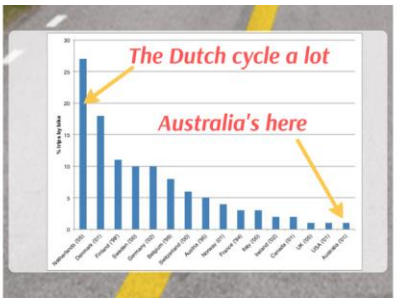
Active Transport

Active transport provides the greatest opportunities for improving transport outcomes in Melbourne quickly and at minimal cost.

Active transport is by far the most cost-effective mode of travel overall ie in terms of energy use and demands on physical infrastructure (ref below) and cost of government to support it. It is also the least costly mode of travel for individual travelers. Cycling also provides the greatest opportunity for upscaling at minimal cost.



Active transport is the most accessible mode of transport. Walking is ubiquitous and is linked to all modes of travel. Cycling can be used for short trips and long trips (particularly with EV bikes and linked with other modes – particularly public transport) by a wide range of people – old and young, by those who do not or cannot afford a car or even a car license or are not eligible to drive. Promotion of active transport provides substantial benefits – not just economic, but also broader community, public health and environmental. Melbourne's geography, terrain and benign climate should be ideal for cycling. The city also has wide road reservations which provide opportunities for creating a safe environment for cyclists. Despite these advantages participation in cycling in Melbourne is low by world standards.



Melbourne does not have to reinvent any “wheels” if it wants to improve transport outcomes in this city. There are many cities it can learn from which highlight fundamental principles of best practice and valuable lessons which can be adapted and applied here. The only barrier is the will and mindset to make it happen.

Cycling: customer service issues.

Whilst route cohesion, directness, comfort and attractiveness are very important, safety is paramount and must be addressed if cycling is to become a genuine option for more travelers. Other cities have demonstrated how this can be tackled.

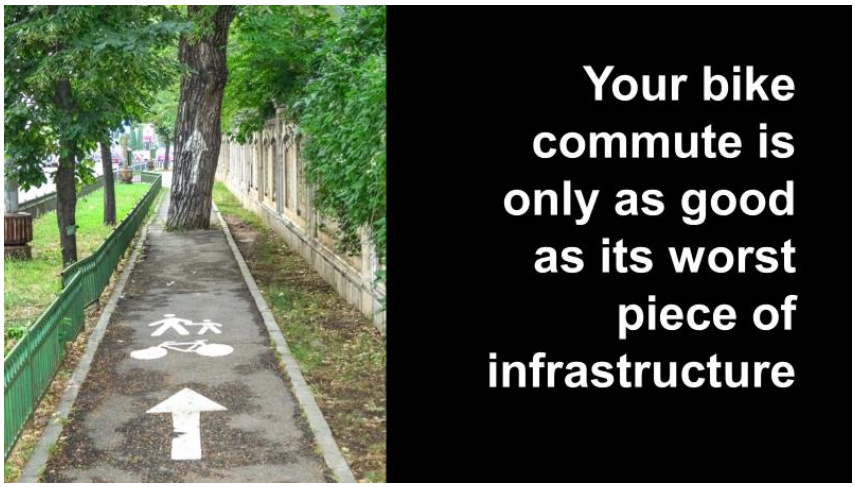
Improving cycling outcomes requires regulatory support to create a cultural and institutional environment for change supported by many small-scale low-cost actions that address barriers for cycling.

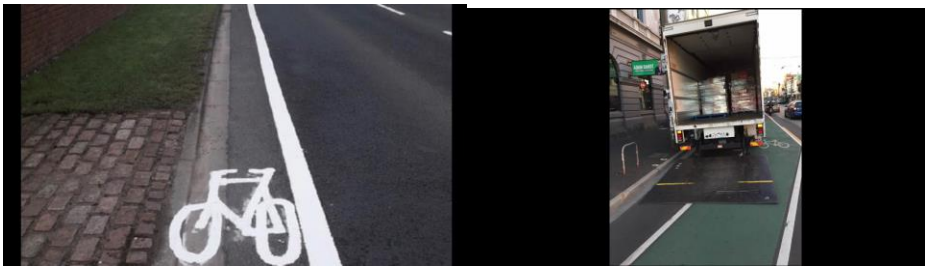
Principles of Network Design

1. Cohesion
2. Directness
3. Safety
4. Comfort
5. Attractiveness

Institute for Sensible Transport

It is critical that policy makers, planners and transport engineers understand cyclist’s needs - they often don’t and it shows - ref below





Creating a bicycle riding culture by applying lessons learnt from other cities

A case study – How Copenhagen became a cycling paradise by considering the full cost of cars.

Cars pollute and cause more accidents. So when deciding whether to invest in roads or bike lanes, Copenhagen calculates all of the social costs involved–and bikes win out.

BY BEN SCHILLER

Copenhagen is known as a cyclist paradise, a place where the bike is treated equally, if not preferentially, to the car. There are long-running cultural reasons for this–the Danes are into bikes, period–but also more structural factors as well. One of those is how the city justifies its cycling investments relative to other modes of transport.

In a new paper, Stefan Gössling from Lund University and Andy Choi from the University of Queensland take a look at Copenhagen's approach and argue that it explains how the city has built out so much dedicated cycling infrastructure, including miles of uninterrupted and separated bike lanes, and even dedicated bike tunnels, bridges, and traffic lights.

FLICKR USER BOEGH

When the city decides on a cycling project, it compares the cost to that of a road for cars, and it includes not only the upfront amount, but also things like the cost of road accidents to society, the impact of car pollution on health, and the cost of carbon emitted to the atmosphere. After including these factors, it comes to a rather startling calculation. One kilometer driven by car costs society about 17 cents (15 euro cents), whereas society gains 18 cents (16 euro cents) for each kilometer cycled, the paper finds. That's because of factors like the health benefits of cycling and the avoided ill-effects of cars.

“What we learn here is that society profits from people cycling. It’s better for society if people cycle from many different angles, from resource intensity to people’s health,” says Gössling, in an interview.

FLICKR USER STEVEN VANCE

As well as costs and benefits to society, there are also personal costs and benefits, including the time lost or gained from taking a bike or car, and the impact of noise and pollution on quality of life. When these are included in the analysis, cars cost 57 cents per kilometer while bikes come in at 9 cents per kilometer, the paper finds.

Gössling says Copenhagen’s costing approach helps illuminate cycling full advantages, as well as the value of good infrastructure in encouraging cycling among different social groups.

“If we want people to cycle, then we have to change our approach towards urban infrastructure. Cyclists will only cycle [in large numbers] when they feel physically safe and when it’s fast, which means they need to be physically separated from cars,” he says.

ABOUT THE AUTHOR

Ben Schiller is a New York staff writer for Fast Company. Previously, he edited a European management magazine and was a reporter in San Francisco, Prague, and Brussels.

Copenhagen City of Cyclists – facts and figures 2017

Camilla Petersen Weihe | July 4, 2017

The City of Copenhagen has a long tradition of systematic data collection to document the development in cycling and identify future challenges.

City of Copenhagen has published a leaflet with the newest facts and figures. Every second year the Municipality of Copenhagen publish a new Bicycle Account summarizing key statistics on cycling in Copenhagen. The complete Bicycle Account will be out later this Summer.

Facts

The 2017 Annual Bicycle Report confirms that cycling is still the preferred mode of transport for the inhabitants of Copenhagen. 41 % of all trips to work and study to/from Copenhagen is by bike and 62 % of Copenhageners choose to bike to work and study in Copenhagen. In total, 1.4 million km is cycled in the city on an average weekday which is an increase of 22% since 2006.

In the same period, cyclists’ feeling of safety has increased by 43% while the relative risk of having a serious bicycle accident has been reduced by 23%.

Opportunities for achieving rapid improvement in transport outcomes

Brief Summary

Aim for implementation within 12 months with 12month ongoing rolling program

Item	Description	Cost (indicative)	Speed of implementation and realization of benefits	Implementation notes
	Buses			
1	Increase bus network – country and regional by making school bus services available for everyone	Zero	Almost immediate	Very easy
2	Redesign metropolitan bus network	Relatively low if done in-house on recurrent budget with minimal outsourcing from consultants. Increased fare revenue should offset cost of route changes	Significant improvements can be achieved progressively within three years	Requires development of in-house skills to plan, implement in collaboration with local government
3.	Traffic signalization updates (part of a broader plan to provide priority on roads for buses and trams which was initiated under the Think Tram Project, and bikes)	Minimal Requires recruitment or redeployment and training of inhouse technicians and engineers	Relatively quick Much of this can be done within the remainder of the parliamentary term	should be relatively straight forward if tackled with government support and commitment
4	Install wi-fi on all buses/coaches, trains, trams system wide	Low cost	Quick	Easy to implement
5	Install passenger information displays (PIDS) on buses (like trams and trains) with announcements	Relatively low cost Could be included in a federal government funding package	Relatively quick	Relatively straight forward
6	Usb chargers for each seat on buses	As above	As above	Easy to implement
7	Install bike racks on buses (done in every US and Canadian city and most European centres. In Australia only Canberra has taken to it).	To be costed As above	As above	As above

8	V/Line ticketing is still handwritten, whereas metropolitan commuters have myki. This is a massive disparity that needs to be fixed.	To be costed but should be relatively inexpensive	As above	As above
9	Fix our country roads. They have never been this bad. Particularly in south west and west Victoria. Coaches aren't running on time because rather than fix the roads, VicRoads just slow the speed, hence the coaches don't run on times – they're always late. We can't just keep on slowing speeds and putting patches on the roads. We need to rebuild and fix them so they'll last a very long time.	This is essential maintenance and impacts all road users - should not be included as a cost item for bus improvements. Can be included in a federal government stimulus package	Quick – can be progressed at numerous locations simultaneously	Straight forward
10	Improve accessibility (and safety) for buses Note In Melbourne: • 59% walk to trains • 95% walk to tram stops • 92% walk to bus stops Only 15% of females and 54% of males feel safe walking at night In fact we are the 4th last OECD country where women feel safe walking at night.	This is a local government responsibility and should be undertaken by all shires and councils as part of their local transport plan Could be funded from a federal grant, or local government funding	quick	Relatively easy to implement
11	Introduce time pulse timetable for buses at station interchanges (to eliminate buses departing empty as train arrives)	zero	quick	Relatively easy

	Trams			
	Phase out short shunting This practice priorities operational targets and rewards over customer service delivery Similar rationale in some respects to banning station skipping by metro trains Responses could include • Improved service coordination involving all PT modes can be achieved with a central control centre in which operators from all modes are present and can communicate ie on a daily routine basis and in response to emergency situations. • Tram (and bus) priority referred to above	Minimal if any cost	Immediate quick and ongoing	Short shunting is a band aid response to "bunching" ie to even out tram trips following delays – typically from congestion uneven passenger loadings etc. Whilst it may be necessary to continue as an emergency measure, it is appropriate to address underlying causes ie such as lack of priority on roads and need for better customer service coordination
2	Improved customer information on trams (maps to show connecting train, bus and tram services	Minimal – to be costed	quick	Simple
3	Replace 36 old A/Z - With 24 NEW E-Class p.a. = 2520 pax Class p.a. = 5040 pax Doubles capacity & releases 12 drivers to run new routes / + frequency improvements	To be costed New rolling stock can be linked to a job creation program for Melbourne and regional Victoria ie to produce rolling stock needs locally		
4	Tram route extensions (short) • Station Pier terminal • NEW CBD Route - 66 Remand Centre – Fitzroy • *Route 16 - Extension to Kew Junction* Amalgamate Routes 30 & 78	To be costed Could be included in a federal grants package Relatively low cost	Projects can be progressed in parallel and completed within two or three years Quick	Straight forward Straight forward

	Trains			
1.	Measures to improve reliability by reducing or eliminating service disruptions **This is of fundamental importance for the survival of any service industry** • Changes in maintenance of vehicles and supporting infrastructure. Measures to include • Upgrading maintenance programs to ensure infrastructure and vehicles etc do not break down between maintenance cycles – ie introduction of preventative maintenance program Changes in maintenance practices to ensure these are carried out in a way that does not disrupt services or quality of service to service users – typically public transport users etc	Whilst improved maintenance will require substantial funding, some of this can be achieved by reallocation of funding within recurrent budgets, and changes in contractual arrangements with franchisees This offers new jobs – permanent long term and a broad range of skills with much higher jobs multiplier than for capital works projects	Changes could be implemented relatively quickly	Improved outcomes will require commitment from government and greater negotiating skills on behalf of government department responsible for monitoring and overseeing to ensure contractual obligations are met
2.	Improved customer information – requires a review of all information – all types and at all locations for relevance for travelers needs and accuracy to include information for connecting services ie buses and trams as well as other train services.	To be costed but will be relatively low cost		
3.	Lighting and urban design measures to improve traveler safety in and around station and modal interchange facilities – carried out in partnership with local governments	Similar to item 10 for buses		
4.	Improved service frequency - Introduction of 10’ frequency on all train lines as a minimum standard	Minimal cost – uses existing rolling stock and infrastructure	quick	easy

	Active Transport – Cycling			
1.	Climate setting and leadership by government and local governments	Minimal cost	Can be achieved quickly	Relatively simple to implement
2.	Public education and promotion by government and local governments	As above	As above	As above
3	Supporting regulation – numerous including • Introduction of lower speed limits on all suburban streets and minor roads (40kph and ultimately 30kph) • Provision of safe cycling conditions within the road reservation for all other roads	Ditto	ditto	ditto
4	Collaboration and partnerships with local governments to review priorities and progress local government transport plans	Ditto	Ditto	Ditto
5	New policies on road space allocation – to provide safer and priority lanes for active (and public transport)	Ditto	Ditto	Ditto
6	Replication of Canning Street style cycle ways throughout more of Melbourne	Can be included in local government transport planning	Relatively quickly	Relatively easy if progressed with supportive municipalities first where there is already strong local support

	Institutional improvements			
1	Recruitment and training • Study tours and exchanges/secondments with other cities that are accepted exemplars of world best practice such as Zurich, Vienna, Copenhagen, Barcelona, Singapore, Curitiba, or from other organisations within Australia that have strong customer service skills etc	Minimal cost – should be offset with savings in other areas of lower priority	Can be implemented relatively quickly ie in a matter of months	Relatively easy to progress

2.	Goal setting
	• Introduce patronage targets for public and active transport for all trips and
	  ○ Trips <7km
	  ○ Trips >7km
	• Introduce emission targets for Melbourne and Victorian transport as a whole
	• Traffic safety targets for each municipality with incentives for reduction in each municipality
	• Average travel speed targets for all modes of public transport and benchmark against world best practice
	• Disruption targets for all modes of public transport and benchmark against world best practice
		Minimal cost as above	As above	As above

3	Systems monitoring, recording and reporting, particularly for key service performance indicators and targets made available for public review and feedback	As above	As above	As above
4	Creation of a proactive culture of continual improvement within the Department and service providers ie to constantly review customer service performance (“in the field”) and innovative ways for improvement	As above	As above	As above

Summary – No/low cost high impact transport options

The following are recommended as key areas where very significant improvements can be achieved quickly at little cost system wide.

- Traffic signal adjustments to provide priority on roads to buses and trams.

  This was the subject of the Think Tram project but needs to be revived and extended to buses.

  This task has been the responsibility of VicRoads and carried out by skilled engineers/technicians but TfM have been advised that most traffic signals have not been checked for some years because of staff shortages. The cost of redeploying and training engineering staff for this purpose or even recruitment to cover the shortfall is minimal but the benefits are substantial and could be realized quickly.

  Effective tram and bus priority is critical for a world class integrated public transport service. The bus is for most people in Melbourne their only form of public transport and should be the glue that ties the whole network together.

  It is recognized that tram and bus priority requires several measures for successful implementation but traffic signalization is the cornerstone of such a program and requires regular monitoring and review to ensure implementation works are successful and remain successful as traffic conditions change over time.

- Changed maintenance practices to eliminate maintenance related service disruptions and delays.

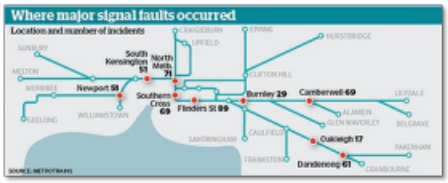
  Service reliability and ability to deal with disruptions are ranked second highest by passengers (behind safety at night) but ranked poor or very poor in terms of performance. No service can expect to stay in business with this kind of performance so it must be rectified as a top priority. Continuation of such performance will limit the capacity of the PT system to function as an integrated transport network and result in more motor vehicle traffic, putting more pressure on the road system (which in turn crowds out more efficient transport modes ie active and road based public transport), generating more carbon emissions, higher accident/casualty rates and increased health costs from noise and air pollution.

- Road safety for active transport, particularly cycling is paramount and a major barrier for patronage growth which would provide major benefits for the entire community system wide at minimal cost.

Customer service – train disruptions

As noted in the tables above service reliability is critical for travelers. Many if not most will have a low tolerance and end up being lost to the PT system and end up driving a car. Performance data below from 2013 needs updating.

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

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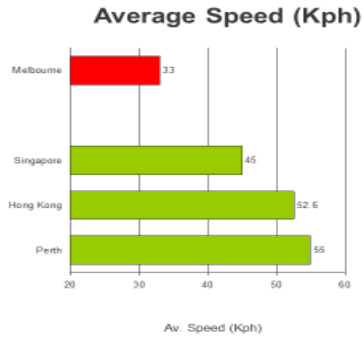
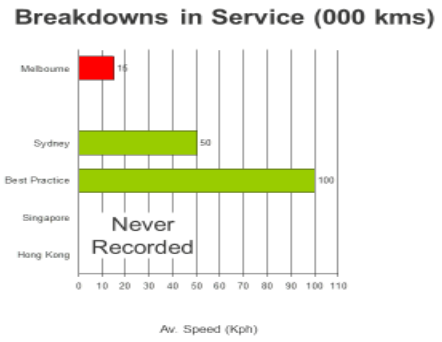
Better performing railways are built on new not old infrastructure and strong resilience/reliability





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