

Hamilton New Zealand Monday 3rd April 2022

Pragmatic Strategies to Legitimise Implementation of Sustainable Transport

Professor Graham Currie and Dr James Reynolds Public Transport Research Group Monash Institute of Transport Studies Monash University, Australia







Agenda

Introduction

Context

Legitimacy

Pragmatic Strategies

Review and close



This presentation concerns the use of Pragmatic Strategies to Legitimise Implementation

How to get (possibly controversial) transport projects done...

...in the real-world (of political, institutional and public opposition)





Dr James Reynolds Professor Graham Currie Public Transport Research Group (PTRG) Institute of Transport Studies (ITS) Civil Engineering Monash University





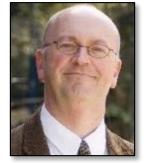
It's the PhD Thesis work of Dr James Reynolds and his supervision team – a joint industry/academic project





Dr James Reynolds

PhD Researcher



Professor Graham Currie Main Supervisor



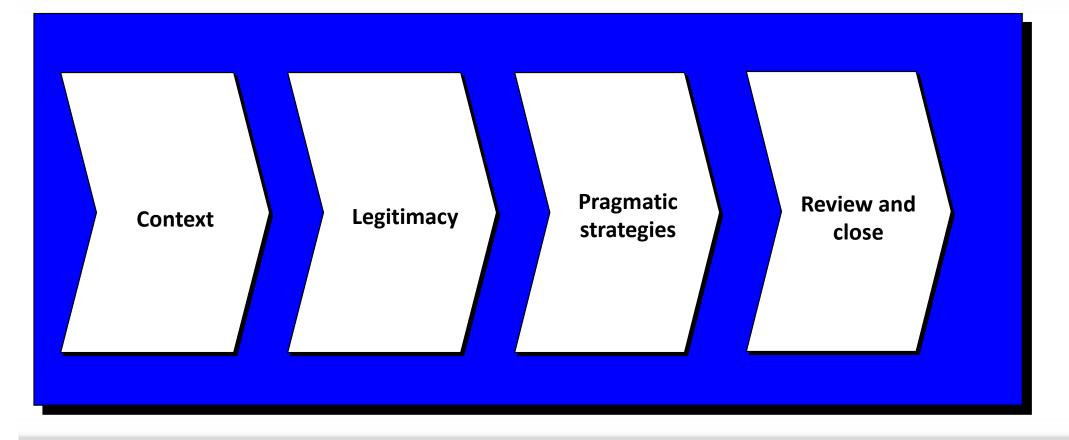
Professor Geoff Rose Associate Supervisor



Alistair Cumming Industry Supervisor



It is structured as follows:









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Technical answers are known, but implementation is hard



Source: Yarra Trams (2014)







Agenda

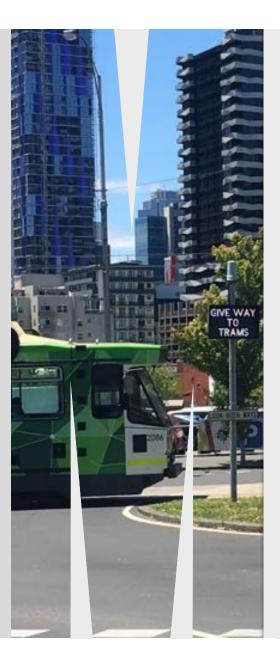
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There are many good reasons to improve our transport systems...



(Postar in ony of Maanster Planning Office, August 2001) Could: FreedOffice City of Minnese, Garmany

Source: City of Munster (1991)







Source: Jacks (2018)

Source: Waters (2022)

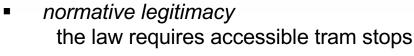




Many different types of legitimacy



Source: Jacks (2018)



- legitimacy through reasonableness unreasonable there is no wheelchair access
- *legitimacy as trust* engineers recommend a platform stop
- sociological legitimacy widespread support for DDA compliance
- *legitimacy through consent* voted on by our political representatives
- unconditional duty cyclists must always have a bike lane(?)

conditional normative support (NIMBYism) I agree with the idea of DDA compliance, but not without a bike lane...

....or the loss of on-street parking





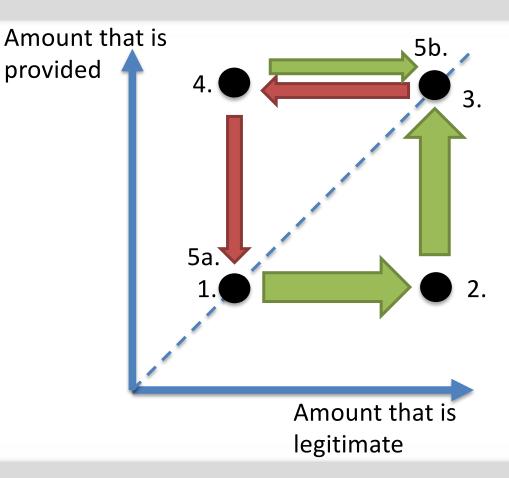
The Legitimacy framework:

Mapping legitimacy through time:

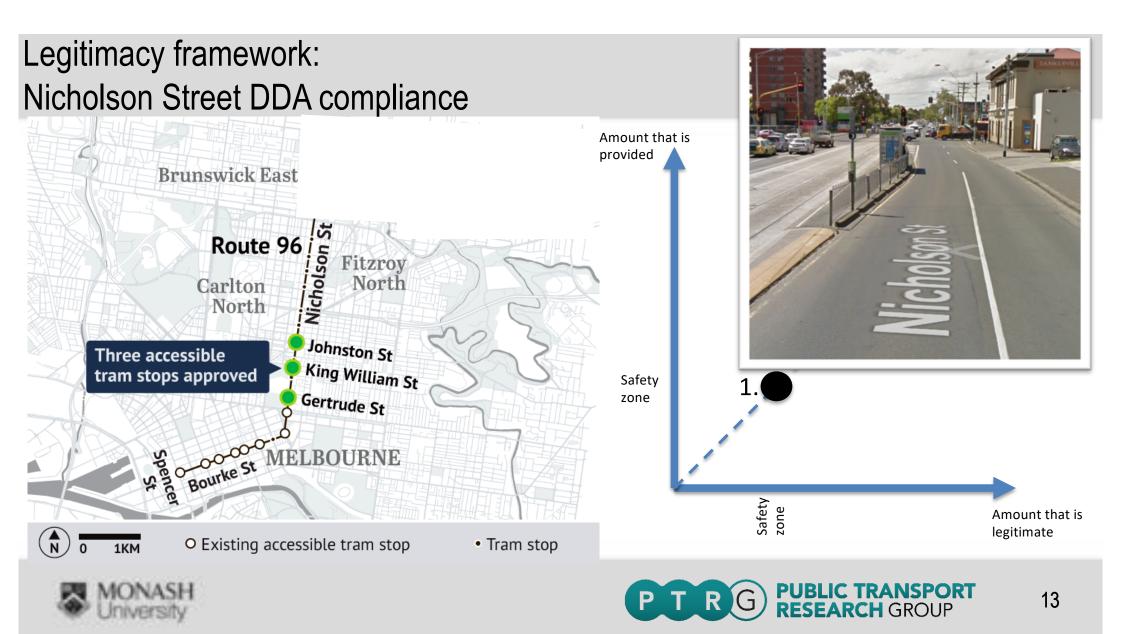
- Starting point What is provided = what is legitimate
- 2. Proposal to increase amount Increases amount that is legitimate
- 3. Implementation What is provided = what is legitimate
- 4. Complaints, protest Decreases amount that is legitimate
- 5a. Failure, removal
- 5b. Success, retention

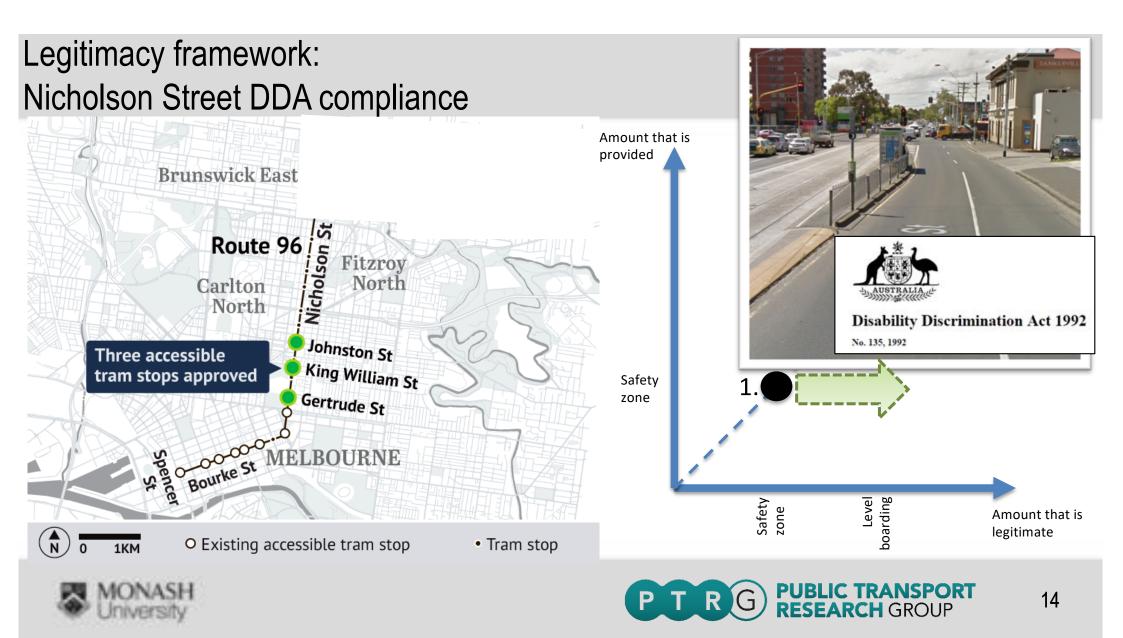
What is provided = what is legitimate



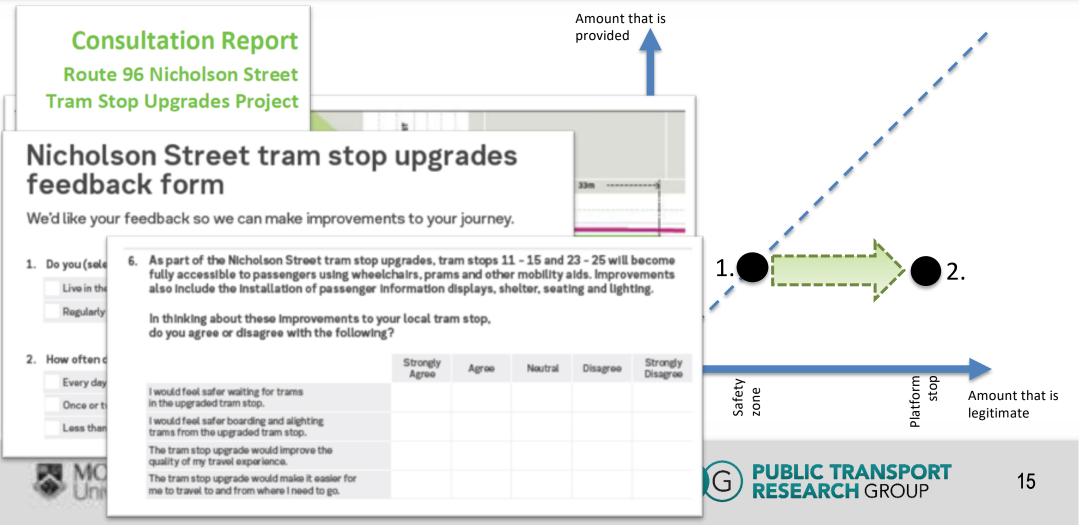




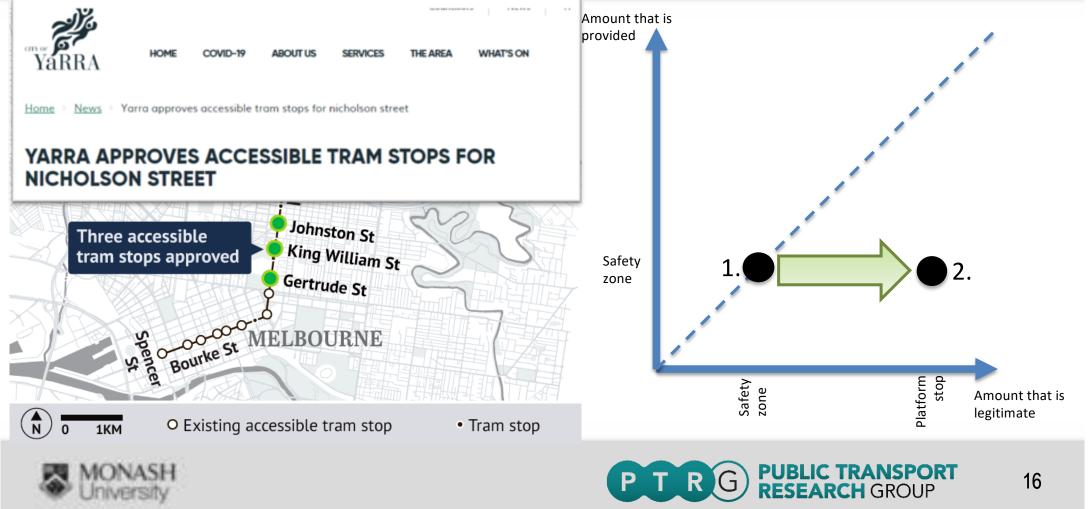


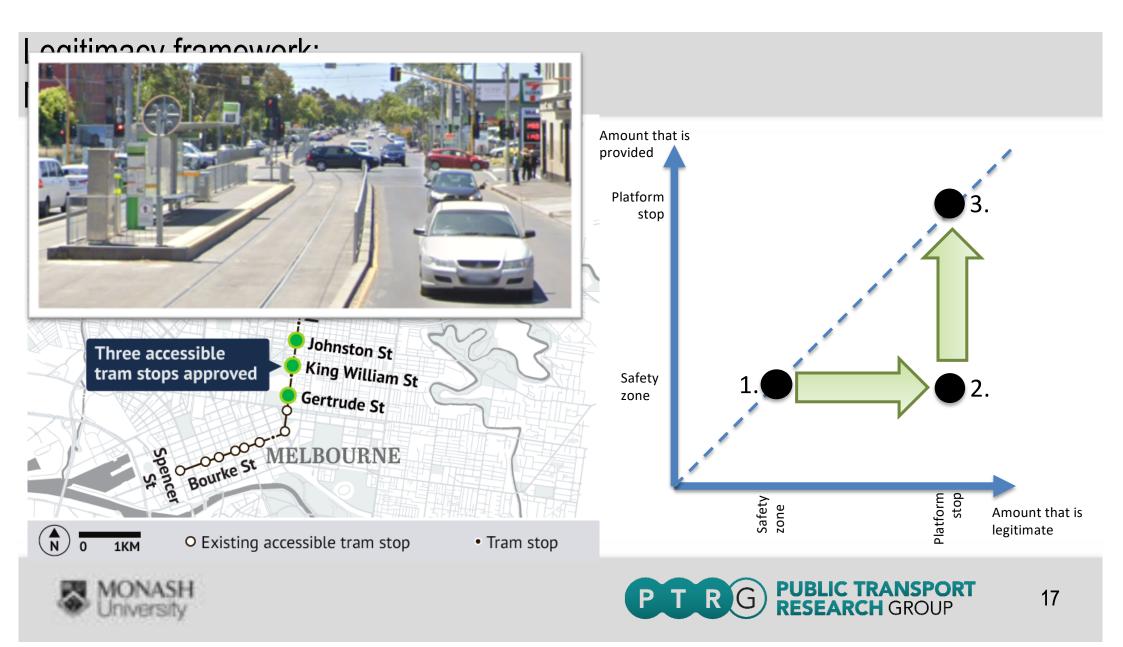


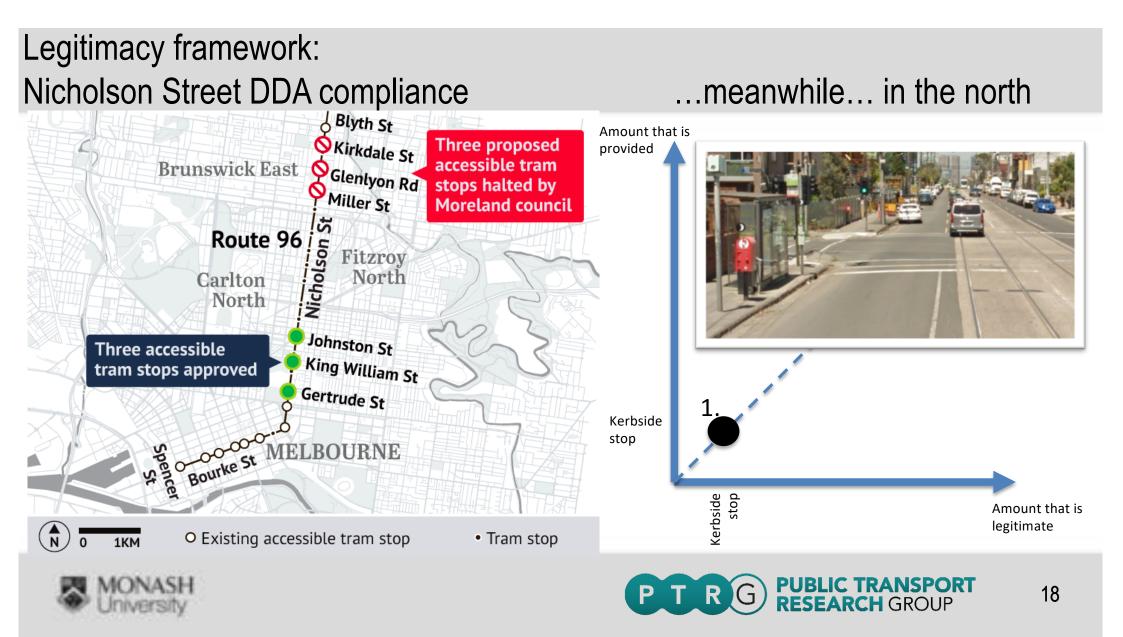
Legitimacy framework: Nicholson Street DDA compliance

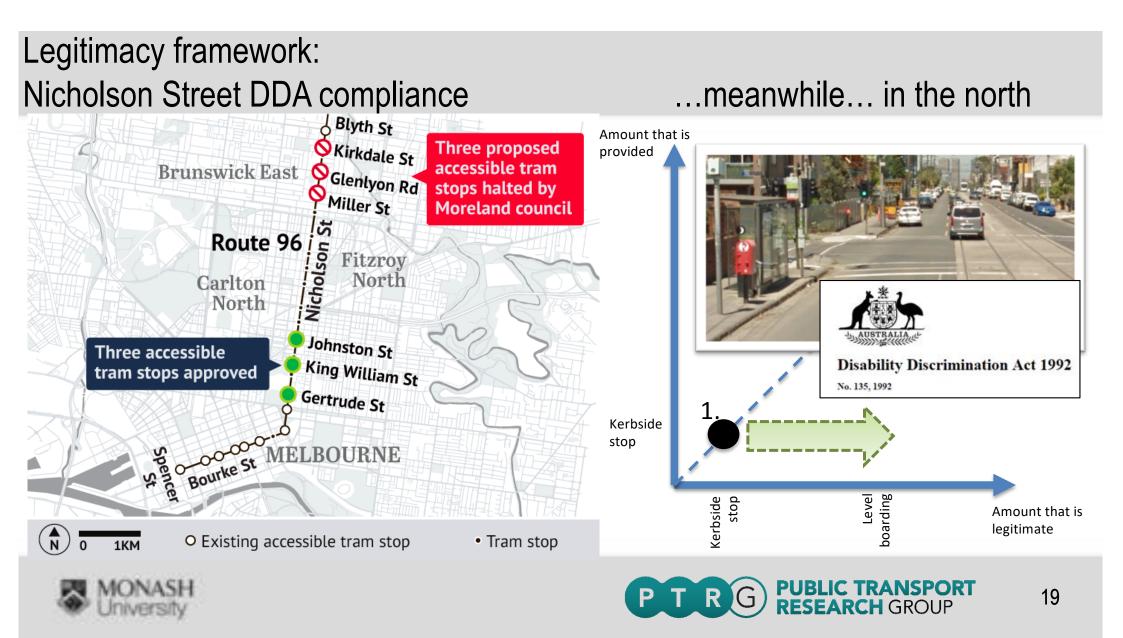


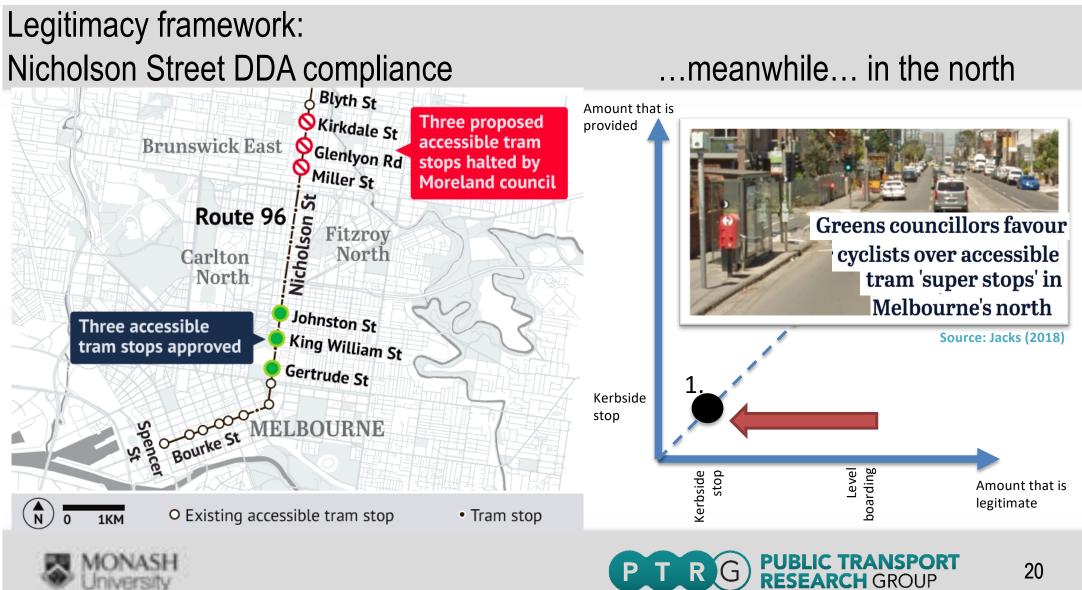
Legitimacy framework: Nicholson Street DDA compliance

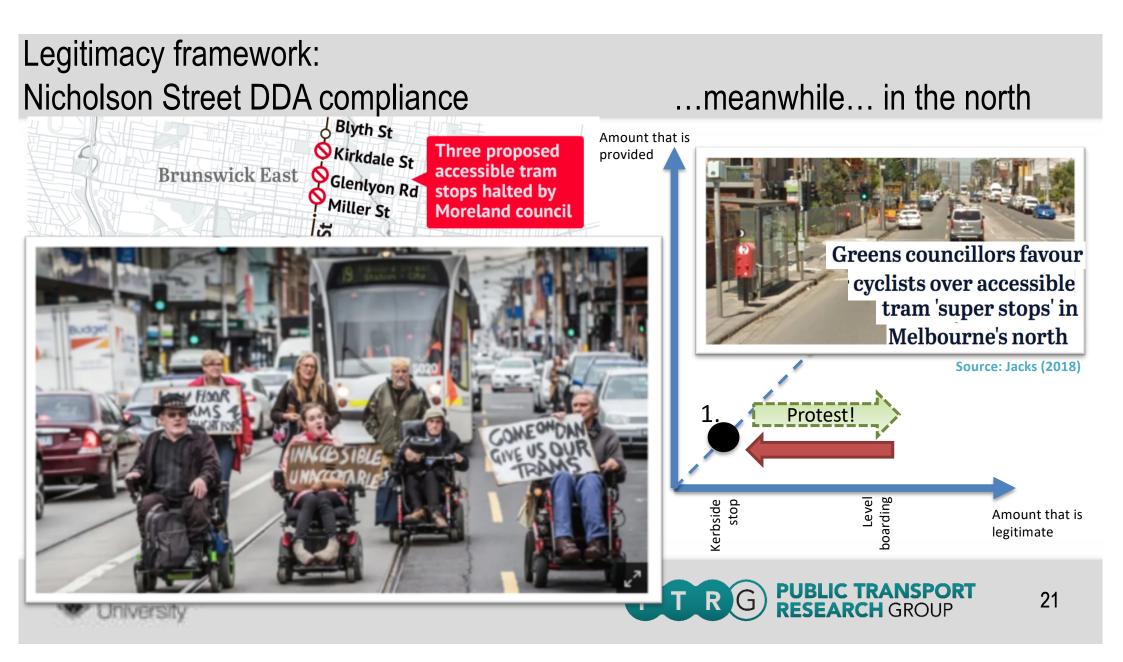








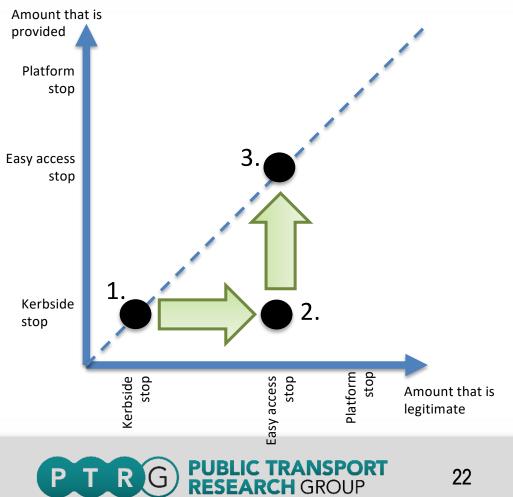




Legitimacy framework: Nicholson Street DDA compliance



...meanwhile... in the north





Curitiba Bus Rapid Transit (BRT)

Curitiba, the Cradle of Bus Rapid Transit

LUIS ANTONIO LINDAU, DARIO HIDALGO and DANIELA FACCHINI

Transit Planning

BY MICHAEL J. MAJOR

Brazil's busways: A "subway" that runs above the ground

"Power is what matters...certainly much more than "political will" on its own" Ardila-Gomez (2004, p.424)

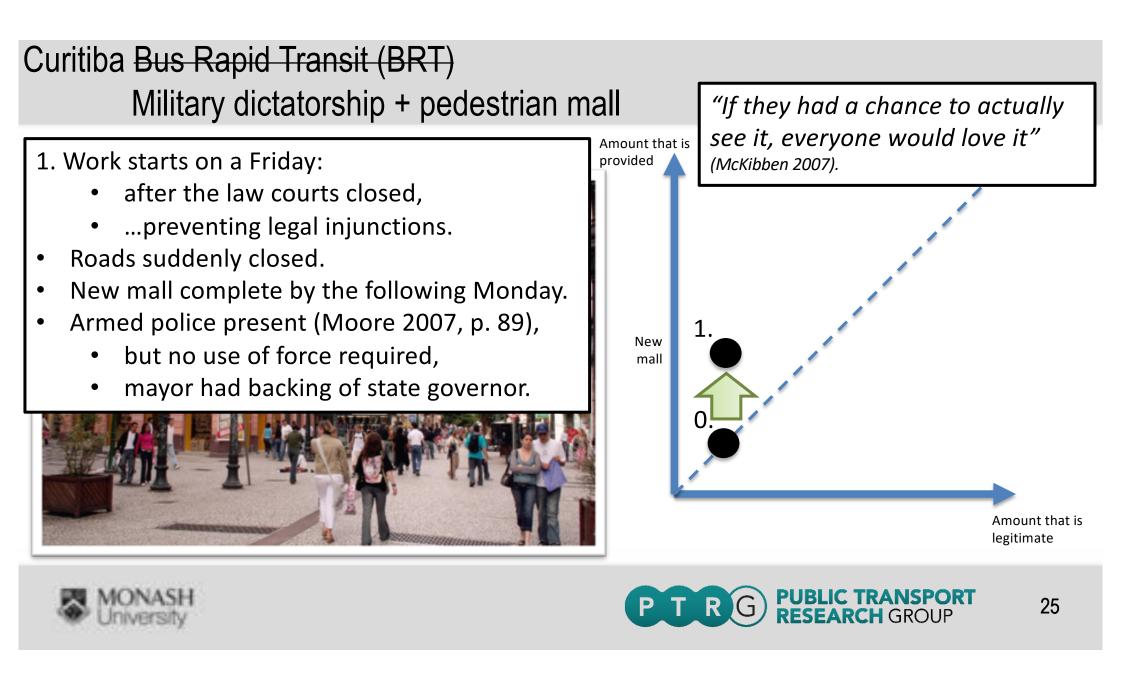


Curitiba Bus Rapid Transit (BRT) Military dictatorship + pedestrian mall

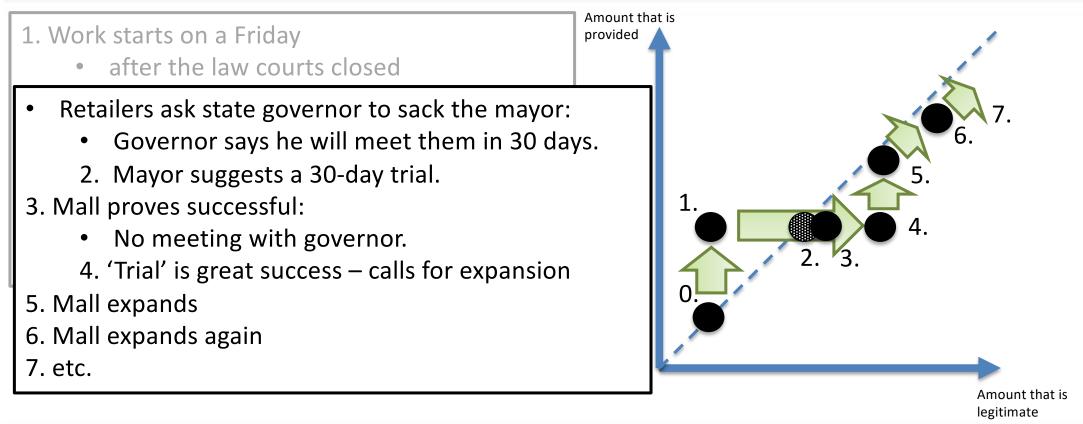






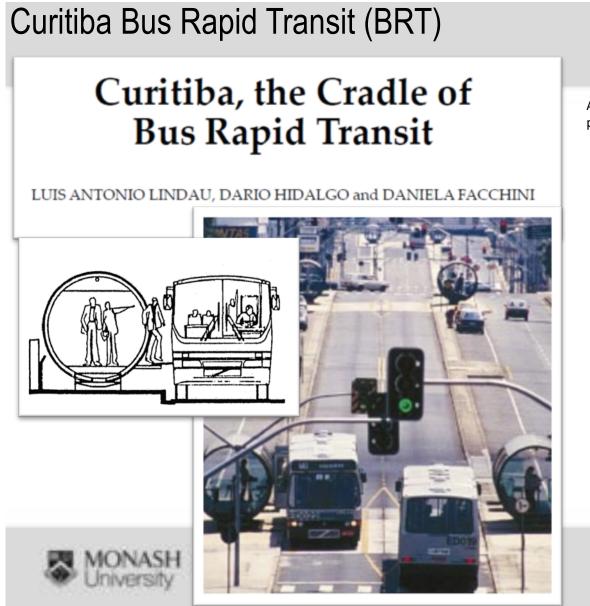


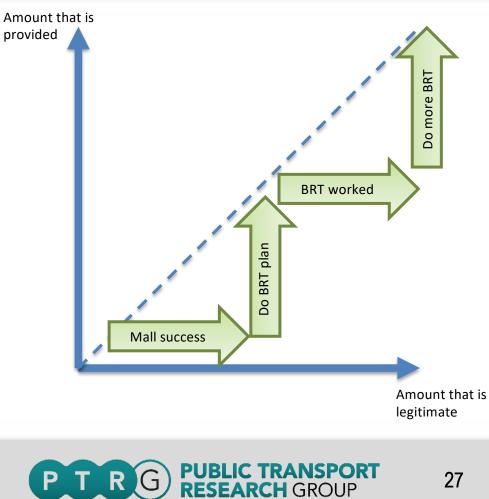
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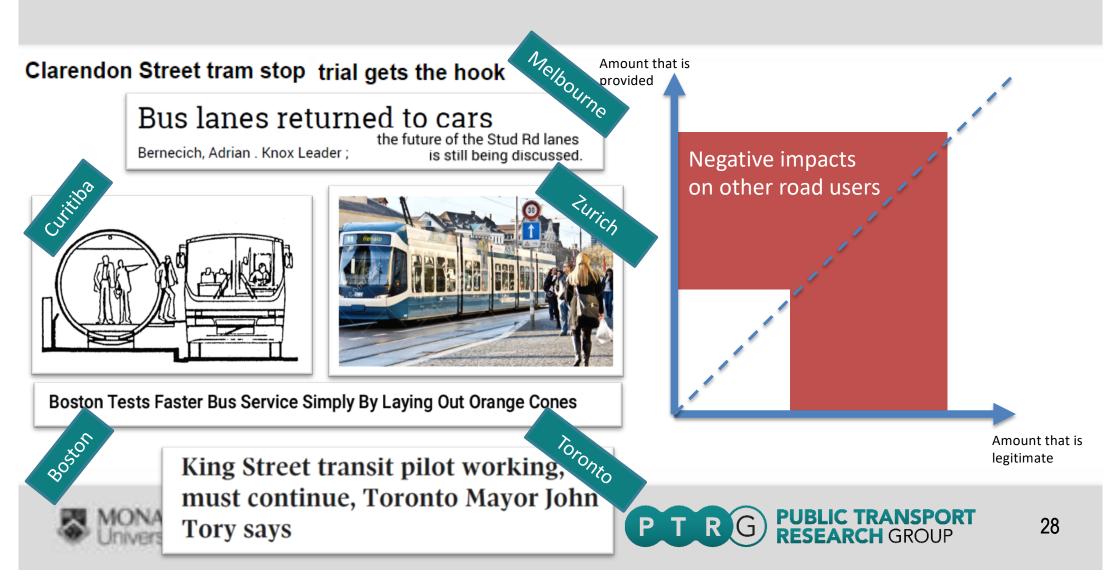


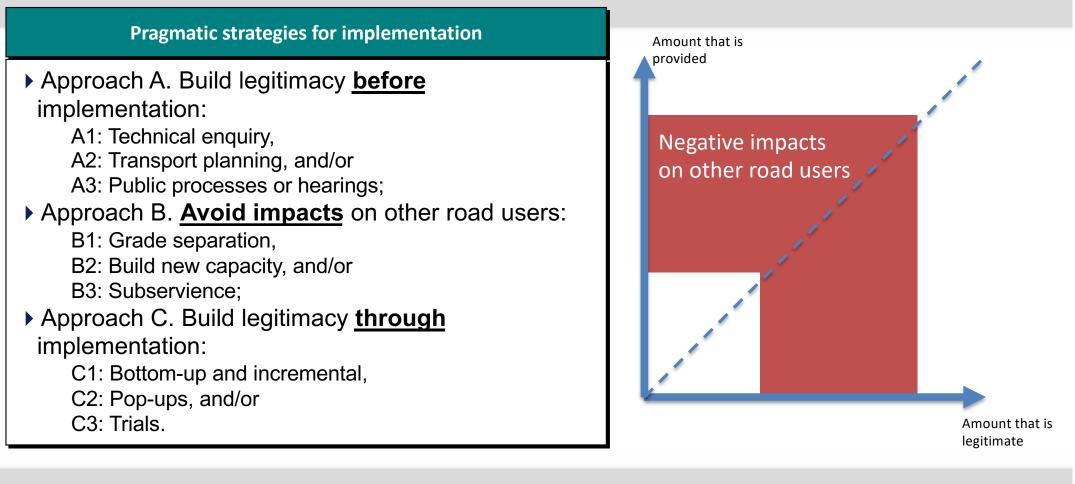






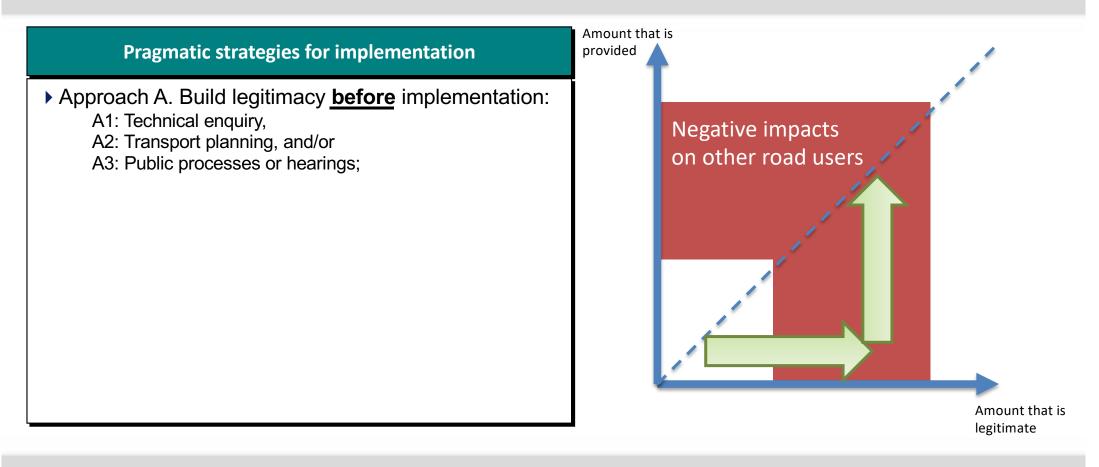
This research: Legitimacy + case studies







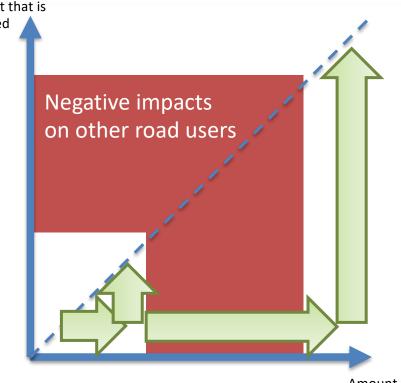












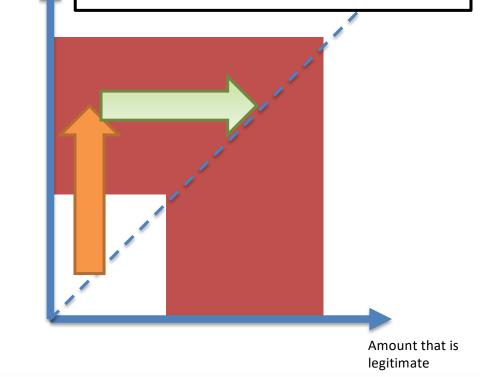
Amount that is legitimate







"If they had a chance to actually see it, everyone would love it" (McKibben 2007).









Agenda

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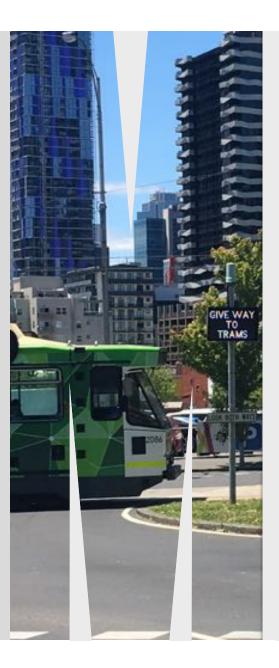
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Legitimacy

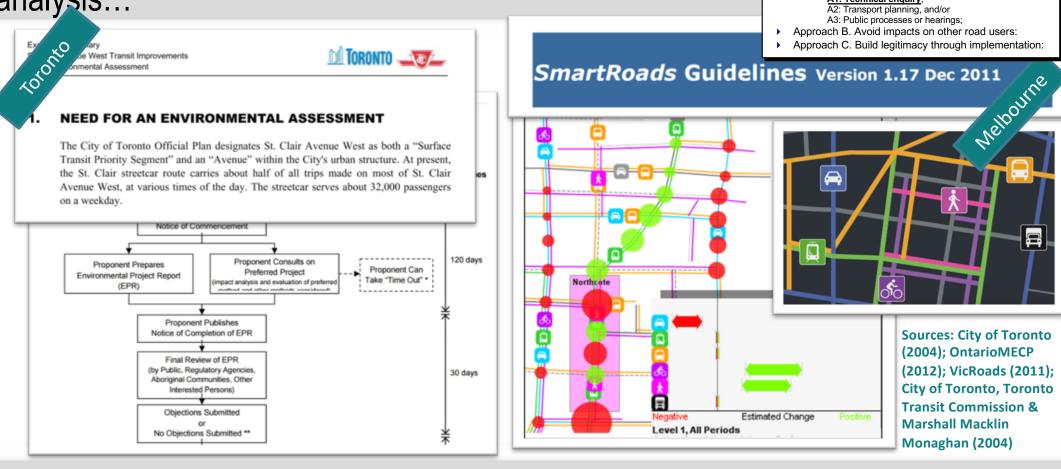
Pragmatic Strategies

Workshop

Review and close



Before: A1. Technical enquiry: legitimise implementation through provision of analysis...



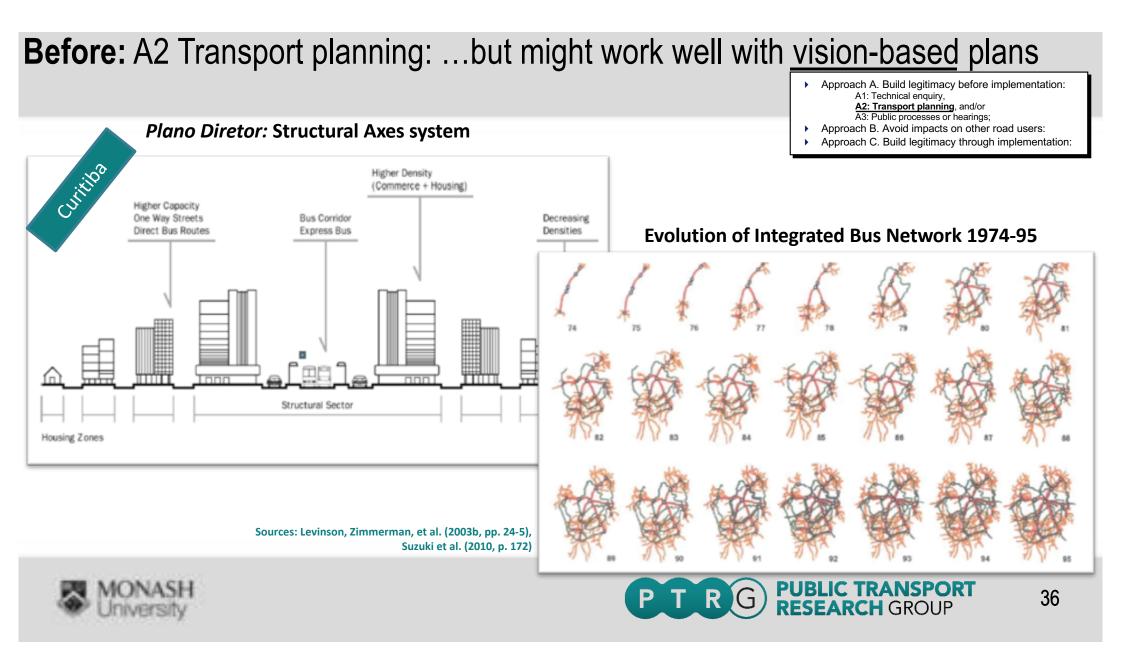




Before: A2. Transport planning: Widely used everywhere... Approach A. Build legitimacy before implementation: • A1: Technical enquiry, A2: Transport planning, and/or A3: Public processes or hearings; Melourne Approach B. Avoid impacts on other road users: Approach C. Build legitimacy through implementation: • BUILDING A TRANSIT CITY Toronto to York Region Melbourne 2030 2030 🕅 Toronto Durham Sheppard East January, 2005 Region Scarborough Melbourne 2030: a planning update Malvern THE The Victorian Melbourne @ 5 millio Transport Plan. В Overview MOVE 😁 🛍 Toronto 🛶 2041 Regional **Transportation Plan Toronto Transit City** Light Rail Plan ------— existing subway LINKING MELBOURNE METROLIN — existing light rail **RTP** METROPOLITAN TRANSPORT PLAN extension







Before: A3. Public processes and hearings: formal public participation in decision making, citizens' juries, direct voting

Citizens' Transit Priority Initiative

• Approach A. Build legitimacy before implementation:			
	A1: Technical enquiry,		
A2: Transport planning, and/or			
A3: Public processes or hearings;			
•	Approach B. Avoid impacts on other road users:		
	Approach C. Build legitimacy through implementation:		

15112 At the expense of the investments fund, a credit of 200 million francs will be approved to permit, in the course of the ten years following the referendum, at a rate of 15 to at most 25 million francs per year, the financing of structural additions and improvements to the network of the transportation company of the City of Zürich, which will serve exclusively and substantially to eliminate all interference by private traffic and internal problems within the companies, so that the vehicles of the VBZ (Zürich transport company) can travel along their lanes or tracks virtually as fast as is technically possible.

On March 13, 1977, the voters narrowly approved the People's Initiative for the Promotion of Public Transport by a vote of:

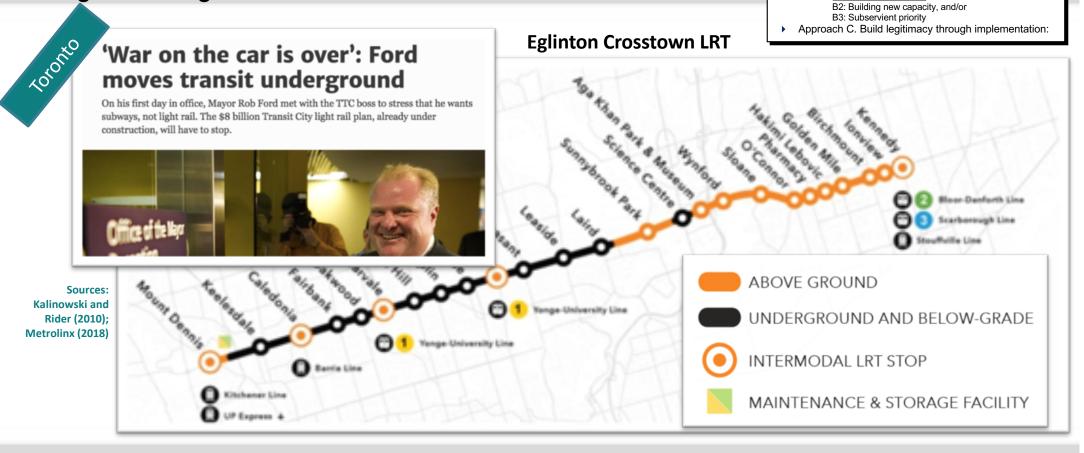
- YES 61,599 (51.25%)
- NO 58,588 (48.75%) 78

Source: Nash and Sylvia (2001)



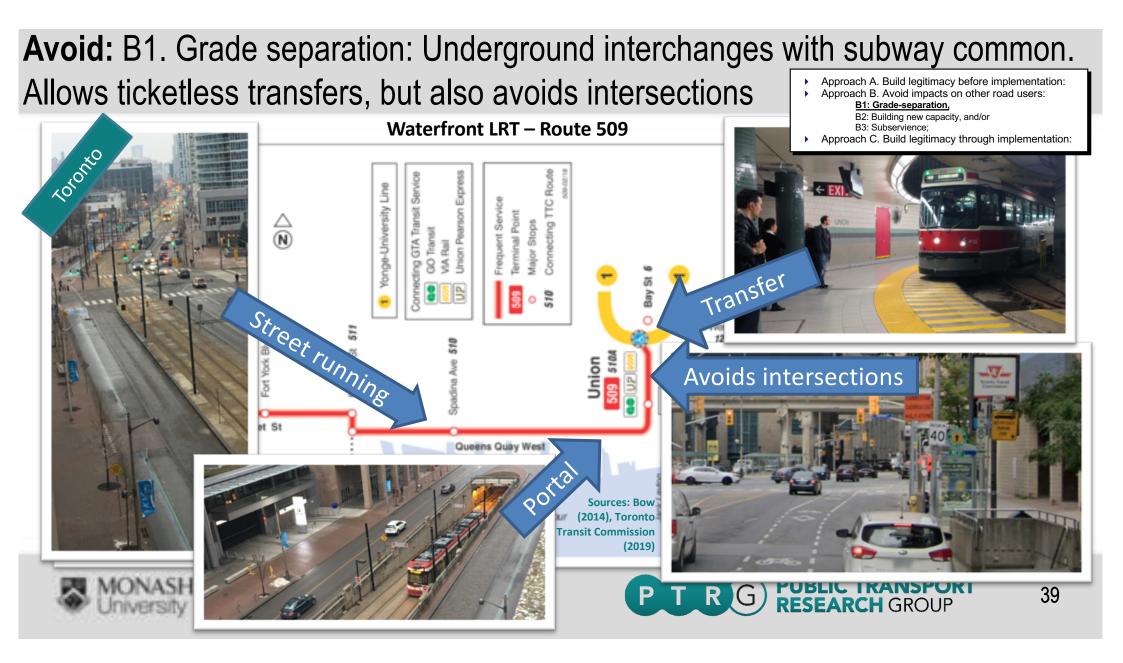


Avoid: B1. Grade separation: Toronto cancelled Transit City, but kept the mostly underground Eglinton Crosstown LRT









Avoid B2. Building new capacity: Busways, road widening, shoulder running etc.

Bus lanes returned to cars Stud Road

Bernecich, Adrian . Knox Leader ; Knox, Vic. [Knox, Vic]05 Apr 2011: 15.

Scoresby MP Kim Wells had previously said the bus lanes between High St and Ferntree Gully Rd, and Kelletts and Wellington roads would stay because they had not replaced existing car lanes. But the future of the Stud Rd lanes between Boronia Rd and Burwood Highway, which have replaced existing car lanes, is still being discussed.

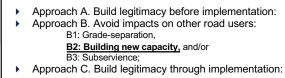
EMERGENCY STOPPING LANE ONLY DUSES/TAXIS ELCEPTED

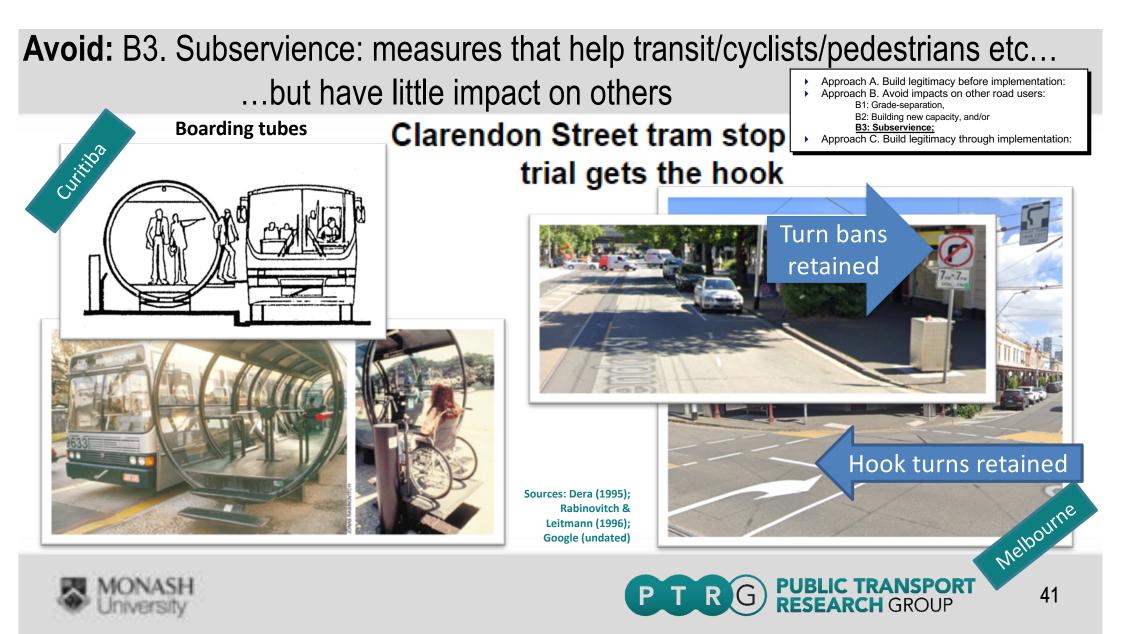
Sources: Bernecich (2011); Google (undated); Reid (2010)





Eastern Freeway





Through: C1. Bottom-up and incremental: small change over time...

- Approach A. Build legitimacy before implementation:
- Approach B. Avoid impacts on other road users:
- Approach C. Build legitimacy through implementation <u>C1: Bottom-up and incremental</u> C2: Pop-ups, and/or C3: Trials



Source: Google (undated)

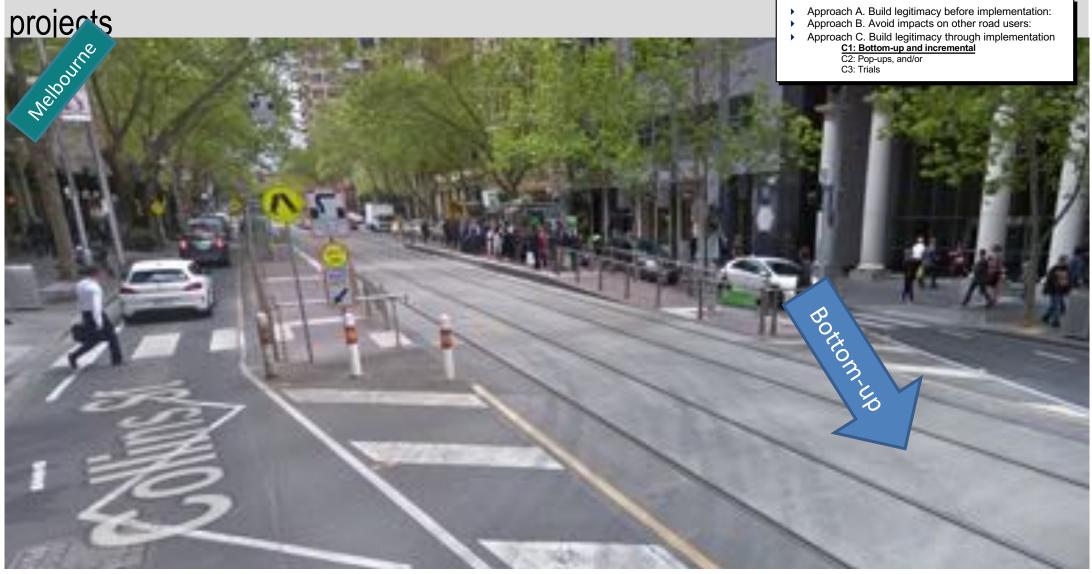




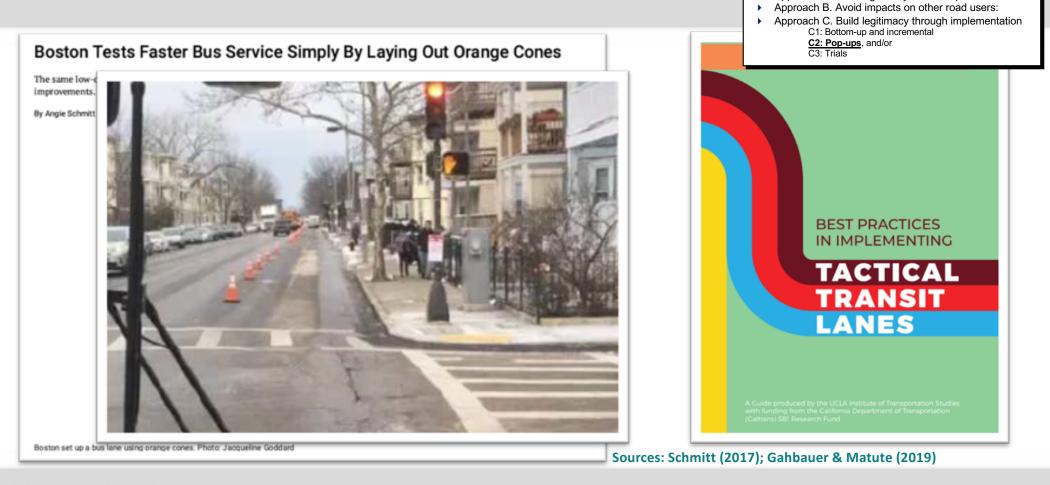




Through: C1. Bottom-up and incremental: ... or including priority into other projects



Through: C2. Pop-ups: low risk, and can just pop-down again







Approach A. Build legitimacy before implementation:

Through: C2. Pop-ups: ... tactical urbanism, 'guerrilla' action!

-

Guerrilla road safety group 'politely' install illegal bike lane protectors on Cherry Street

Posted on April 4, 2013 by Tom Fucoloro



Seattle Makes Guerrilla Bike Lane Permanent

By Angie Schmitt Jul 16, 2013 DCOMMENT HERE

Well, this week the city made it permanent.
ow about a round of applause for Seattle? This spring, a group of activists calling themselves "Reasonably Polite Seattleites" installed a protected bike lane on Cherry Street. How did Seattle officials react?

An extremely polite group of anonymous guerrilla road safety activists armed with \$350 worth of reflective plastic pylons turned the painted Cherry Street bike lane under I-5 into ϵ protected bike lane Monday morning.

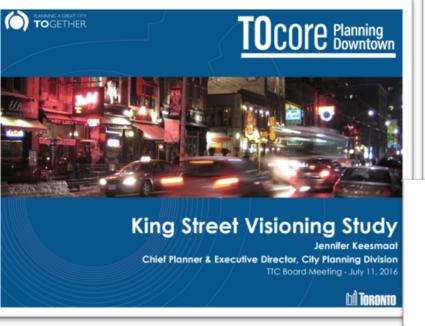




Through C3. Trials: Using a formal trial to get from a plan...

 Approach A. Build legitimacy before implementation:
 Approach B. Avoid impacts on other road users:
 Approach C. Build legitimacy through implementation C1: Bottom-up and incremental C2: Pop-ups, and/or C3: Trials

- Busiest streetcar in Toronto 65,000 passengers per day.
- "...we want to...move people quick(ly) but also want to make sure we don't impact businesses" (Councillor Pam McConnell in Cheung (2016)).



City needs to solve King Street congestion, councillors say

f 🄰 📾 🥑 in

Council will mull a revamp of busy King Street in December when it looks at downtown plan

King Street plan good for transit, bad for families, Ryerson professor warns

A 'transit priority' King Street is part of comprehensive city planning study for downtown core

Trevor Dunn · CBC News · Posted: Nov 09, 2016 5:00 AM ET | Last Updated: November 13, 2016



TOTOTEO



Through: C3. Trials: ...to having legitimacy for an experiment,...

COLONIC Proposed King St

EX26.1

REPORT FOR ACTION

Proposed King Street Transit Pilot: Bathurst Street to Jarvis Street

Date: June 9, 2017 To: Executive Committee From: General Manager, Transportation Services and Chief Planner and Executive Director, City Planning Wards: 20 (Trinity-Spadina), 28 (Toronto Centre-Rosedale)

SUMMARY

This report has been prepared in collaboration with the Chief Executive Officer of the Toronto Transit Commission (TTC).

This report seeks Council authority to proceed with implementation and monitoring of a proposed King Street Transit Pilot between Bathurst Street and Jarvis Street in the Downtown.

King Street is the busiest surface transit route in the entire city, moving more than 65,000 riders on an average weekday, compared to only 20,000 vehicles. Only the Yonge-University and Bloor-Danforth subway lines carry more people on transit.

But King Street is not currently working well for transit. Streetcar service can be slow, unreliable, and erratic, with unpredictable travel times, especially during rush hours, but also during some late evening and weekend times. People end up having to plan for their slowest trip. Along some parts of King Street, walking is sometimes faster, especially between Bathurst Street and Jarvis Street, where we see the most traffic congestion. When streetcars do arrive, they are often overcrowded, especially in rush hours. The TTC estimates that the line is currently about 20% overcapacity.

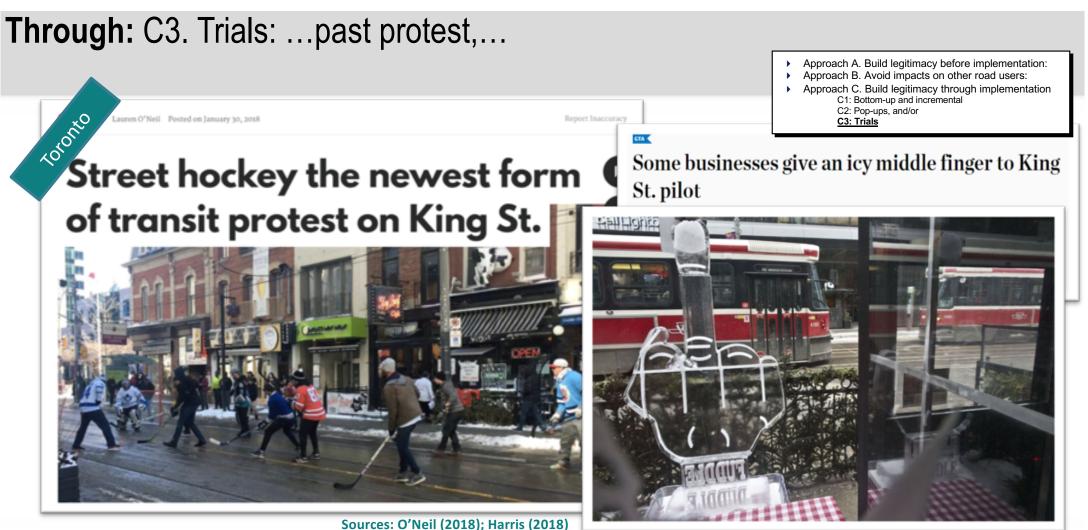
The King Street Transit Pilot is about moving people more efficiently on transit, improving public space, and supporting business and economic prosperity along King Street. Primarily, the transit pilot is about improving *transit reliability, speed, and capacity* on the busiest surface transit route in the entire city.

- Approach A. Build legitimacy before implementation:
- Approach B. Avoid impacts on other road users:
- Approach C. Build legitimacy through implementation C1: Bottom-up and incremental C2: Pop-ups, and/or C3: Trials









Sources. O Neii (2018), Harri





Through: C3. Trials: ...to improve the trial,...

- Approach A. Build legitimacy before implementation:
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Chris Selley: Give Toronto's King Street pilot a fair shot

For the love of God, let's not repeat the humiliating spectacle of shutting down King for TIFF — the act of a profoundly unserious city.

"Listen, this is a pilot. Nobody said it was going to be perfect on day one. In fact, it's not supposed to be. But it is the direction our city must go, needs to go and together ... we are going to make sure it's a success for everybody."

Sources: Selley (2018); Draaisma (2018)

Mayor unveils plan to 'animate' King Street amid business complaints about pilot project





John Tory 🥏 @JohnTory

Talking to residents this morning about the King Street Transit Pilot. So far the streetcar pilot has improved transit service dramatically with increased reliability & ridership.



Through: C3. Trials: ...and to gain and publicise real-world data,...

TOTOTO

May and June 2018 dashboard report for the King Street Transit Pilot

CAR TRAVEL TIMES & VOLUMES

Think is residually.

TRANSIT RIDERSHIP

11% increase in all-day workday

increase in AM commute increase in PM commute ridership Seasibound at ridership beesthound at Spectro Are.)

TRANSIT RELIABILITY

Leville and the l

85% of streetcars arriving within 6 minutes. weathound during the morning commute.

TRANSIT TRAVEL TIMES

The reliability of streetcar travel times has improved.







This increase may be partially related to the commancement of "construction season" which began in early May, Specifically, emergency sewer work that was required from May 7th to 18th, which reduced Richmond Street to one lane and utility work from June 26 to 29, which reduced Queen Street to one lane from

Jarvis Street to University Avenue.

Over May and June, westbound car travel times.

increased compared to the period before the pilot. This

increase is counter to results from province months. where cartalizes in car travel time had corted by? I less

The downtown traffic network has been largely able to abourb and respond to the changes in reuting that drivers have made.

Drivers on King Street centinue to access local businesses or residences, conduct loading and deliveries, and pick up/drop-off passengers. Traffic previously using King Street has generally shifted to alternative easi and west routes.

PEDESTRIAN VOLUMES

Changes in the number of potestrians from Nevember to May and June show similar trends on both King Street and Queen Street. Pedestrian volumes in May and June increased from those in April at some locations, which is consistent with especied seasonal changes



On King Street...

MEDRA

G Weekday all-day pedestrian volumes indicate that mid-day and evening EARCH volumes remain relatively high. ENGINE AND



Cycling volumes in May and June showed a significant increase. from those in April, which is consistent with expected seasonal changes.

•

Approach A. Build legitimacy before implementation:

Approach C. Build legitimacy through implementation

Approach B. Avoid impacts on other road users:

C1: Bottom-up and incremental

C2: Pop-ups, and/or C3: Trials

Cycling volumes on King Street IPM Peak at Spadina Avenual increased by +550 trips in May and +520 trips in June compared to the baseline.



ECONOMIC POINT-OF-SALE DATA

Customer spending on King Street since the pilot began has seen stight growth (0.3%) from the average rate of spending over the same months from the year before.

Average year-over-year prowth in the same period was 5.7% for the area surrounding the pilot and 3.8% for the City overall.

Denarally, the trends in customer spending observed during the first six months of the pilot are in line with trends from the six months. before the pilot began.



Source: City of Toronto and Toronto Transit Commission (2018)



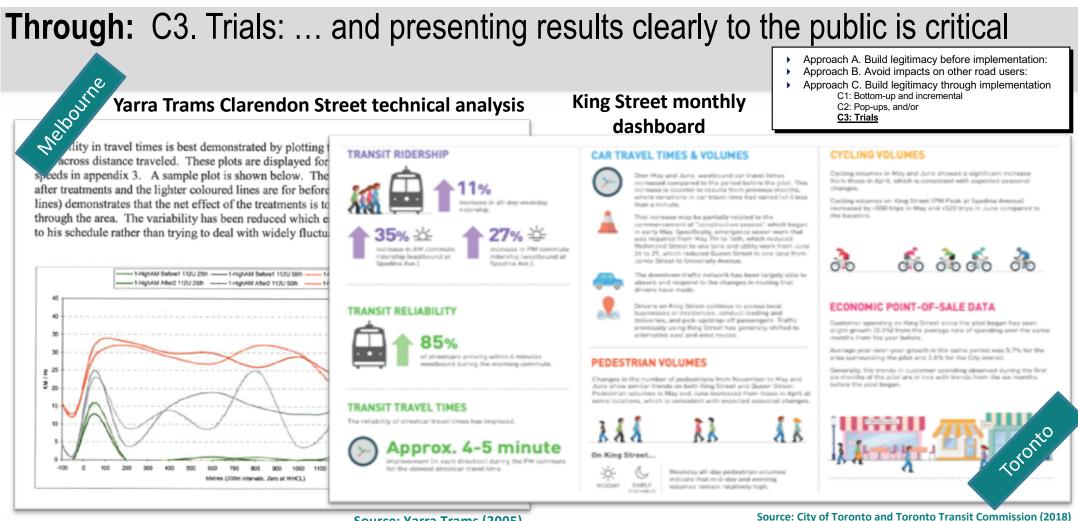




Through: C3. Trials: However, it I	has to be believed to be a	a real trial		
e e		 Approach A. Build legitimacy before implementation: Approach B. Avoid impacts on other road users: Approach C. Build legitimacy through implementation C1: Bottom-up and incremental 		
Media Release	endon Street Campaign			
MEDIA RELEASI	E			
Embargoed until 11AM, Wednesday 16 March 16 March 2005	A delivery driver who often works on Clarendon Street, Jo Giaccotto, believes that the changes have made the strip dangerous for drivers.			
Batchelor's Tram Experiment Fails Clarendon Street www.clarendonstcampaign.org	"You nearly get killed every time you go through that intersection. It makes it very hard to do my job," Mr Giaccotto said.			
n Watson, a South Melbourne newsagent who has run his Clarendon Street business		hich was promoted as a trial is in fact set in		
for 22 years, says that the recent traffic and tram stop changes on the street may force hi and others to close down. The changes – which are part of a trial conducted by VicRoads, Yarra Trams and the Ci	"We were told that, after the trial period, there would be genuine evaluation and consultation. We are now getting the message loud and clear that this is a done deal. It			
of Port Phillip – have eliminated around 35 percent of Clarendon Street's car parks, and introduced hook turns that are confusing motorists and endangering cyclists and pedestrians.				
"They haven't thought this through," according to Mr Watson.	must act now to return Clarendon Street to its			







Source: Yarra Trams (2005)







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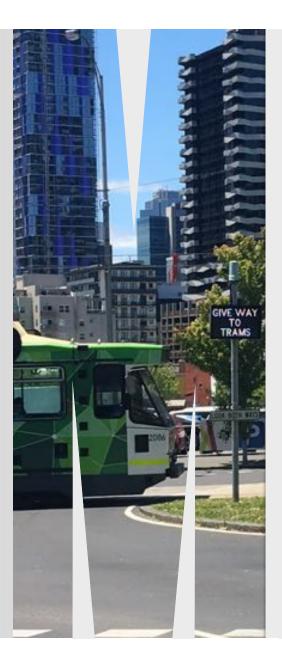
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This seminar has been about pragmatic strategies for making change...

Pragmatic strategies for implementation

- Approach A. Build legitimacy <u>before</u> implementation:
 - A1: Technical enquiry,
 - A2: Transport planning, and/or
 - A3: Public processes or hearings;

Approach B. Avoid impacts on other road users:

- B1: Grade separation,
- B2: Build new capacity, and/or
- B3: Subservience;
- Approach C. Build legitimacy <u>through</u> implementation:
 - C1: Bottom-up and incremental,
 - C2: Pop-ups, and/or
 - C3: Trials.

...and legitimacy

- normative legitimacy the law requires accessible tram stops
- *legitimacy through reasonableness* unreasonable there is no wheelchair access
- legitimacy as trust engineers recommend a platform stop
- sociological legitimacy widespread support for DDA compliance
- legitimacy through consent voted on by our political representatives
- unconditional duty

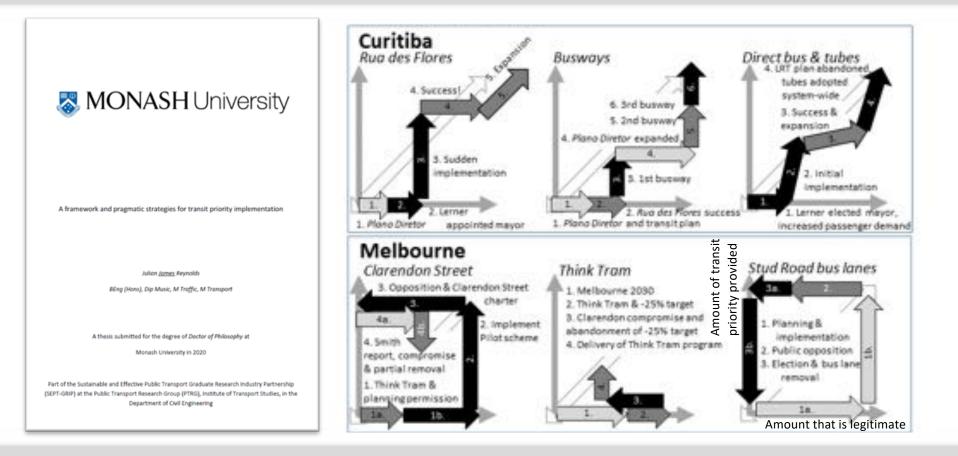
cyclists must always have a bike lane(?)

 conditional normative support (NIMBYism)
 I agree with the idea of DDA compliance, but not without a bike lane...
or the loss of on-street parking





Thesis: Detailed literature review, case studies, framework development

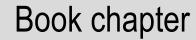






Papers: Bottom-up and incremental, public policy approaches

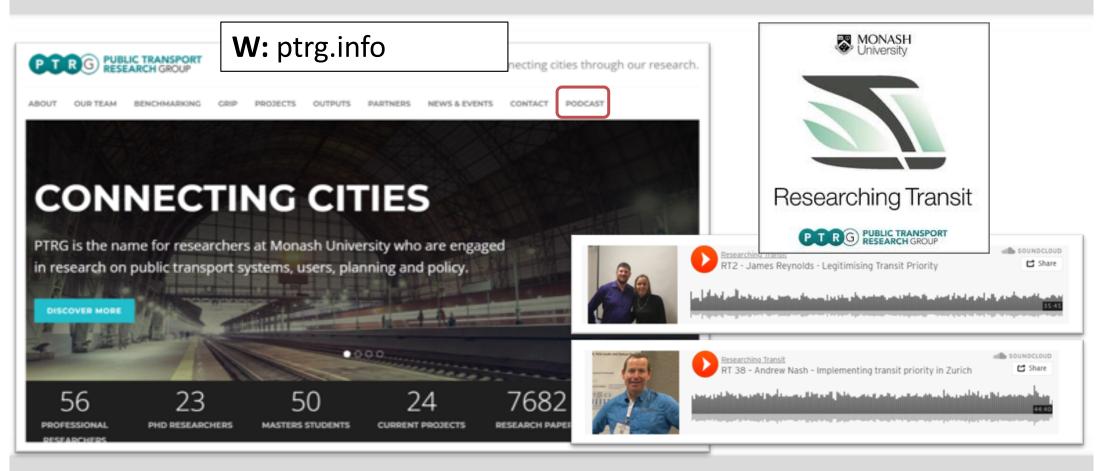
Top-down versus bottom-up perspectives on streetcar priority DD Elgar PAPER NUMBER 18-06428 HANDBOOK OF Public Transport Research FINAL SUBMISSION James Revnolds Edited by PhD Candidate, Public Transport Research Group, Institute of Transport Studies, Department of Civil Engineering, Graham Currie Building 60, Monash University, Clayton, Victoria 3800, AUSTRALIA, Email: james.reynolds@monash.edu Graham Currie Professor, Publi Australasian Transport Research Forum 2017 Proceedings 50. Monash Uni 27 - 29 November 2017, Auckland, New Zealand zraham.currie@ 10. New approaches and insights to managing Publication website: http://www.atrf.info on-road public transport priority Geoff Rose James Revnolds and Graham Currie Professor, Publi 50, Monash Uni 2eoff.rose@mo Moving beyond techno-rationalism: new 10.1 INTRODUCTION Alistair Cumn models of transit priority implementation Manager Transf Kew, Victoria 3 The technical justification for transit priority in congested urban conditions is simple. James Reynolds¹, Graham Currie¹, Geoff Rose¹, Alistair Cumming² Buses and streetcars can move people more efficiently than private cars and therefore can Alistair cummit make better use of the limited road space and intersection time that is available in urban areas.1 Clear examples of the potential of prioritising transit are provided by the success-¹Sustainable and Effective Public Transport Graduate Research Industry Partnership (SEPT-GRIP), ful implementation of priority measures in Zurich (Nash 2001; 2003; Mees 2010; Nash et Public Transport Research Group, Institute of Transport Studies, Department of Civil Engineering, al. 2018) and Curitiba's bus system, which rivals the capacity of heavy rail and has made Building 60, Monash University, Clayton, Victoria 3800, AUSTRALIA the city famous as the 'cradle of Bus Rapid Transit' (BRT) (Lindau et al. 2010b). However, implementing transit priority measures is not necessarily easy in practice, particularly in ²VicRoads, 60 Denmark Street, Kew, Victoria 3101, AUSTRALIA more car-centric cities where opposition may be more likely. Email for correspondence: graham.currie@monash.edu







Two episodes of the Research Transit podcast on transit priority implementation







Questions?

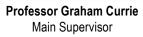
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 - C3: Trials.





Dr James Reynolds PhD Researcher







Professor Geoff Rose Associate Supervisor

Alistair Cumming Industry Supervisor





References

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