The background image shows a wide city street with historic European-style buildings. On the left, there are red trams. In the center, a modern yellow and orange tram is moving. On the right, a tram stop shelter is visible with a person waiting. Pedestrians are walking on the sidewalks. The overall scene is bright and sunny.

Canterbury passenger rail & housing: workshop 5

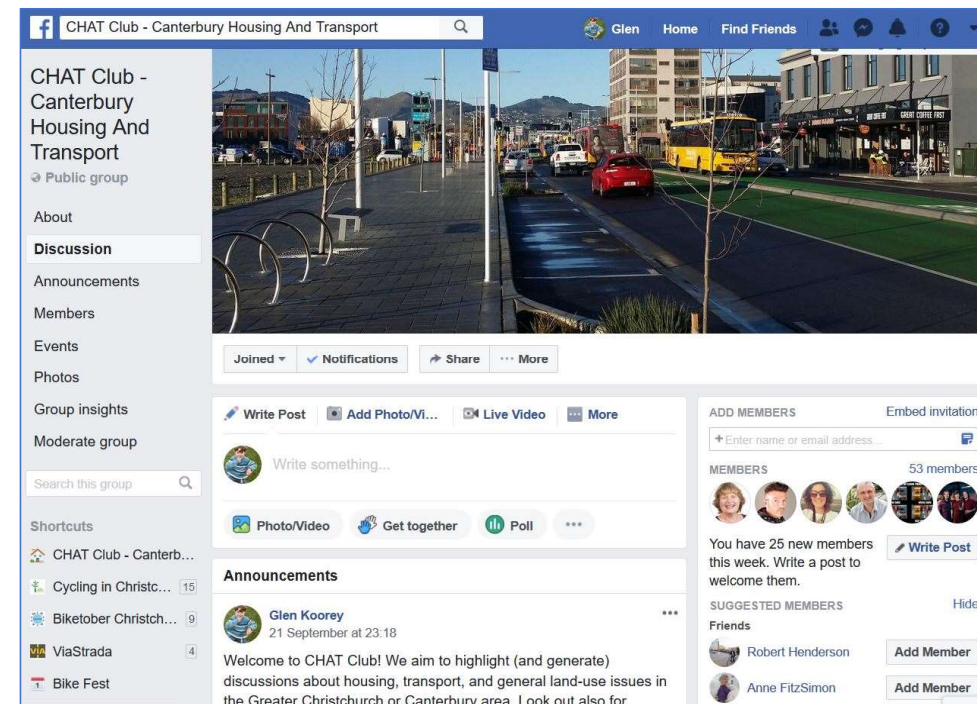
CHAT Club

8 July 2019

This forum brought to you by CHAT Club

CHAT = Canterbury Housing And Transport

- Discussions about housing, transport & general land-use in Greater Christchurch
- Facebook discussion group:
fb.com/groups/248229305886431/
- Websites:
talkingtransport.com
medium.com/@brendon_harre



Workshop invites

- Sign up to receive email invites

<http://eepurl.com/go5klr>

- You may give a little

***givealittle.co.nz/
cause/chat-club#***

givealittle
from the  Spark Foundation



Welcome to CHAT Club! We aim to highlight (and generate) discussions about housing, transport, and general land-use issues in the Greater Christchurch or Canterbury area. Subscribe to our newsletter and receive invites to events by subscribing here.

Email Address

First Name

Last Name

Organisation

Subscribe

Housekeeping



Programme for tonight (6.00 – 7.30)

- Recap – Glen
 - “Roadmap”, Bus vs rail attributes
- Results from last time – Six bus/rail options – Glen
- Costs – Capex vs Opex – Chris
- *Group discussion*
- How are we going to pay for it? – Axel
- *Exercise: Benefit vs Cost*
- Wrap-up / where to from here? – Glen

Menti exercise: What do you think of tonight?

Use your smartphone to give us some feedback throughout the evening

(you can wait until the end to do this survey)

- Go to www.menti.com
- Enter code number: **11 27 72**
- Write some comments (up to 250 characters)
 - What did you learn? What did you like?
 - What didn't we cover? What do you disagree with? etc, etc
- Click "Submit" *(You can submit more than one comment)*

A screenshot of the Mentimeter mobile app interface. It shows a text input field with the code "123456" and a blue "Submit" button. Below the button, it says "The code is found on the screen in front of you".

Please enter the code

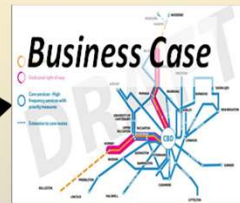
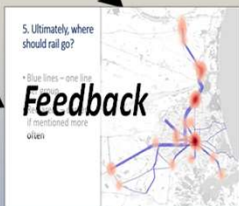
123456

Submit

The code is found on the screen in front of you

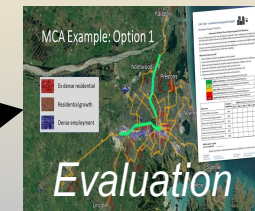
Workshop roadmap ... the endgame

Transport



Comparison Summary

	Heavy Rail	Light Rail	Combined Transit
Construction Cost	\$	\$\$\$	\$
Flexibility	☒	☒	☒
Land Use Impact	☒	☒	☒
Station/Stop Spacing	☒	☒	☒
Public Appeal	☒	☒	☒
Operating Costs	\$\$\$	\$\$\$	\$






























Governance

A PLAN!
(and how to do it...)

Land use

Recap

Bus vs Rail – comparison summary

	Heavy Rail	Light Rail	Bus Rapid Transit
Construction Cost	\$	\$ \$ \$	\$ \$
Flexibility		 	 
Land Use Impact	  	  	
Station/Stop Spacings	  	  	  
Public Appeal	 	  	
Operating Costs	\$ \$ \$	\$ \$ \$	\$

The background image shows a city street scene with a tram. The tram is orange and white, with 'genera-tion easyJet' and the number '2089' on its front. It is moving along a track in the middle of the street. On the left side of the street, there are multi-story buildings with colorful facades (blue, green, white) and many bicycles parked along the sidewalk. On the right side, there are trees and a pedestrian crossing with a zebra crossing. A traffic light is visible on the right. A yellow warning sign with a black exclamation mark and the text 'let op overstekende voetganger' is visible on the right. The text 'Results from last workshop' is overlaid in a large, bold, brown font in the center of the image.

Results from last workshop

Glen Koorey

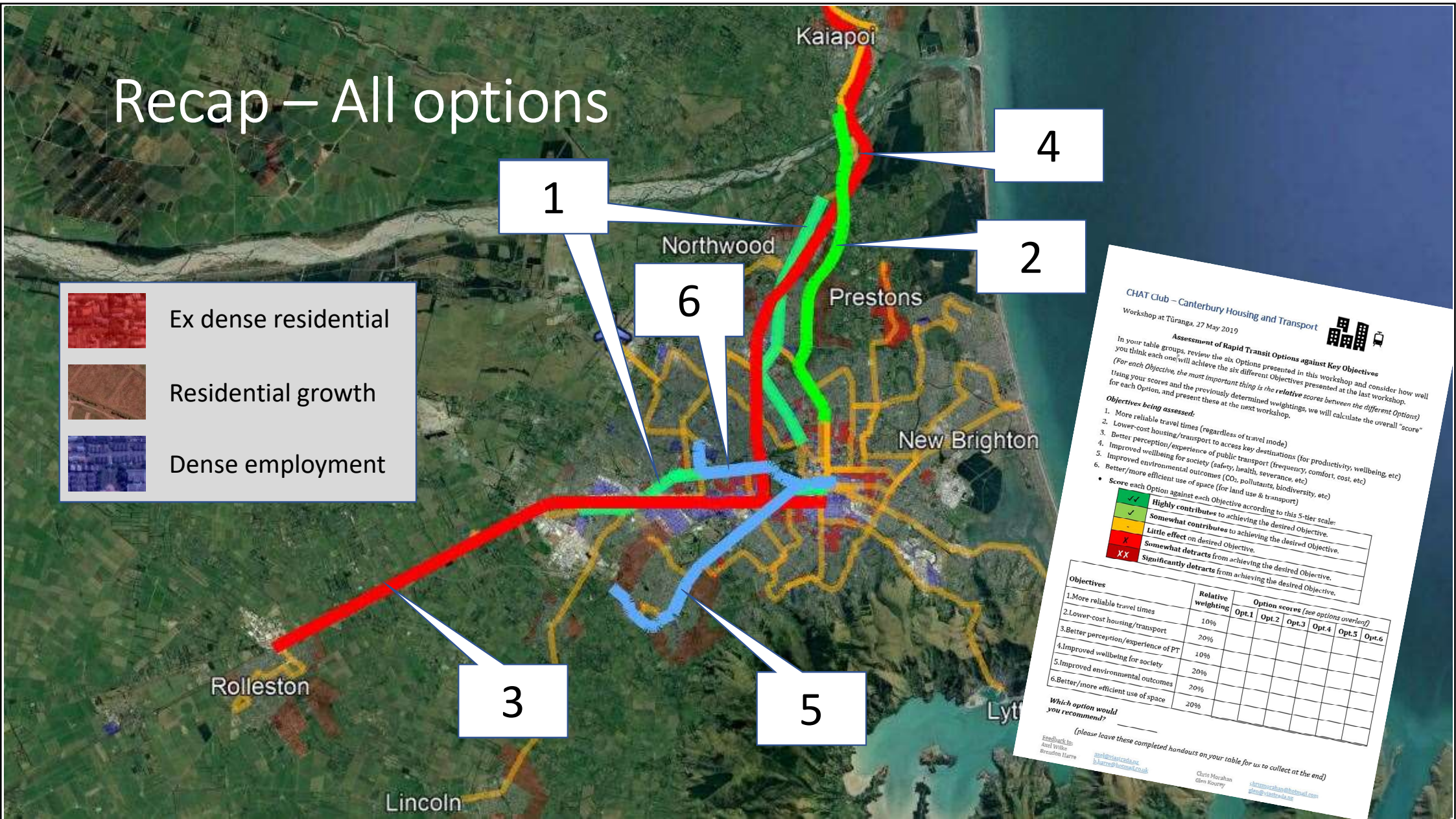
Transport Engineer/Planner

Recap – All options

Ex dense residential

Residential growth

Dense employment



CHAT Club – Canterbury Housing and Transport
Workshop at Tūranga, 27 May 2019

Assessment of Rapid Transit Options against Key Objectives

In your table groups, review the six Options presented in this workshop and consider how well you think each one will achieve the six different Objectives presented at the last workshop. (For each Objective, the most important thing is the *relative* scores between the different Options) for each Option, and present these at the next workshop.

Objectives being assessed:

1. More reliable travel times (regardless of travel mode)
2. Lower-cost housing/transport to access key destinations (for productivity, wellbeing, etc)
3. Better perception/experience of public transport (frequency, comfort, cost, etc)
4. Improved wellbeing for society (safety, health, severance, etc)
5. Improved environmental outcomes (CO₂, pollutants, biodiversity, etc)
6. Better/more efficient use of space (for land use & transport)

Score each Option against each Objective according to this 5-tier scale:

Score	Description
✓✓	Highly contributes to achieving the desired Objective.
✓	Somewhat contributes to achieving the desired Objective.
-	Little effect on desired Objective.
X	Somewhat detracts from achieving the desired Objective.
XX	Significantly detracts from achieving the desired Objective.

Objectives	Relative weighting	Option scores (see options overlaid)					
		Opt.1	Opt.2	Opt.3	Opt.4	Opt.5	Opt.6
1. More reliable travel times	10%						
2. Lower-cost housing/transport	20%						
3. Better perception/experience of PT	10%						
4. Improved wellbeing for society	20%						
5. Improved environmental outcomes	20%						
6. Better/more efficient use of space	20%						

Which option would you recommend? _____

(please leave these completed handouts on your table for us to collect at the end)

Feedback to:
Azed Wike
Wreton Harve

azed@canterbury.govt.nz
harve@canterbury.govt.nz

Chris Morahan
Glen Koury

chris.morahan@canterbury.govt.nz
glen@canterbury.govt.nz

Evaluation results

		1	2	3	4	5	6
		Bus rapid transit		Heavy rail		Light rail	
Objective	Weighting	Riccarton + Papanui	Northern Corridor	To Rolleston	To Rangiora	Lincoln Road	Riccarton Road
More reliable travel times	10%	0.5	1.0	1.8	1.8	1.0	1.0
Lower-cost housing/transport	20%	1.2	1.2	1.2	1.6	1.3	0.5
Better perception/experience of public trpt	10%	0.8	1.0	1.2	1.2	1.2	1.2
Improved wellbeing for society	20%	0.8	1.0	1.0	1.0	1.0	1.0
Improved environmental outcomes	20%	0.8	1.2	1.5	1.4	1.4	1.0
Better/more efficient use of space	20%	0.5	0.8	1.3	1.2	1.4	0.7
TOTAL WEIGHTED SCORE		4.7	6.2	7.9	8.0	7.4	5.1

Implications of results

1. BRT Riccarton & Papanui – ranked lowest – **discount**
2. BRT Northern Corridor – ranked 4th – **consider** this one as an alternative to a parallel train
3. Rail to Rolleston – ranked 2nd – **evaluate**
4. Rail to Rangiora – ranked highest – **evaluate**
5. Light rail Lincoln Road – ranked 3rd – **evaluate**
6. Light rail Riccarton Road – ranked 5th – **discount** (for now)

The background image shows a tram stop on a sunny day. A blue tram, numbered 257, is stopped at the platform. It has 'SCHAUINSLANDBAHN' and 'Freiburgs Gipfelinie' written on its side, along with a cartoon character and the slogan 'Bringt mich hoch.' A red bus is visible in the background. A signpost with a green 'H' symbol and 'Innsbrucker Straße' is also present. The text 'Capex vs Opex' is overlaid in large brown letters.

Capex vs Opex

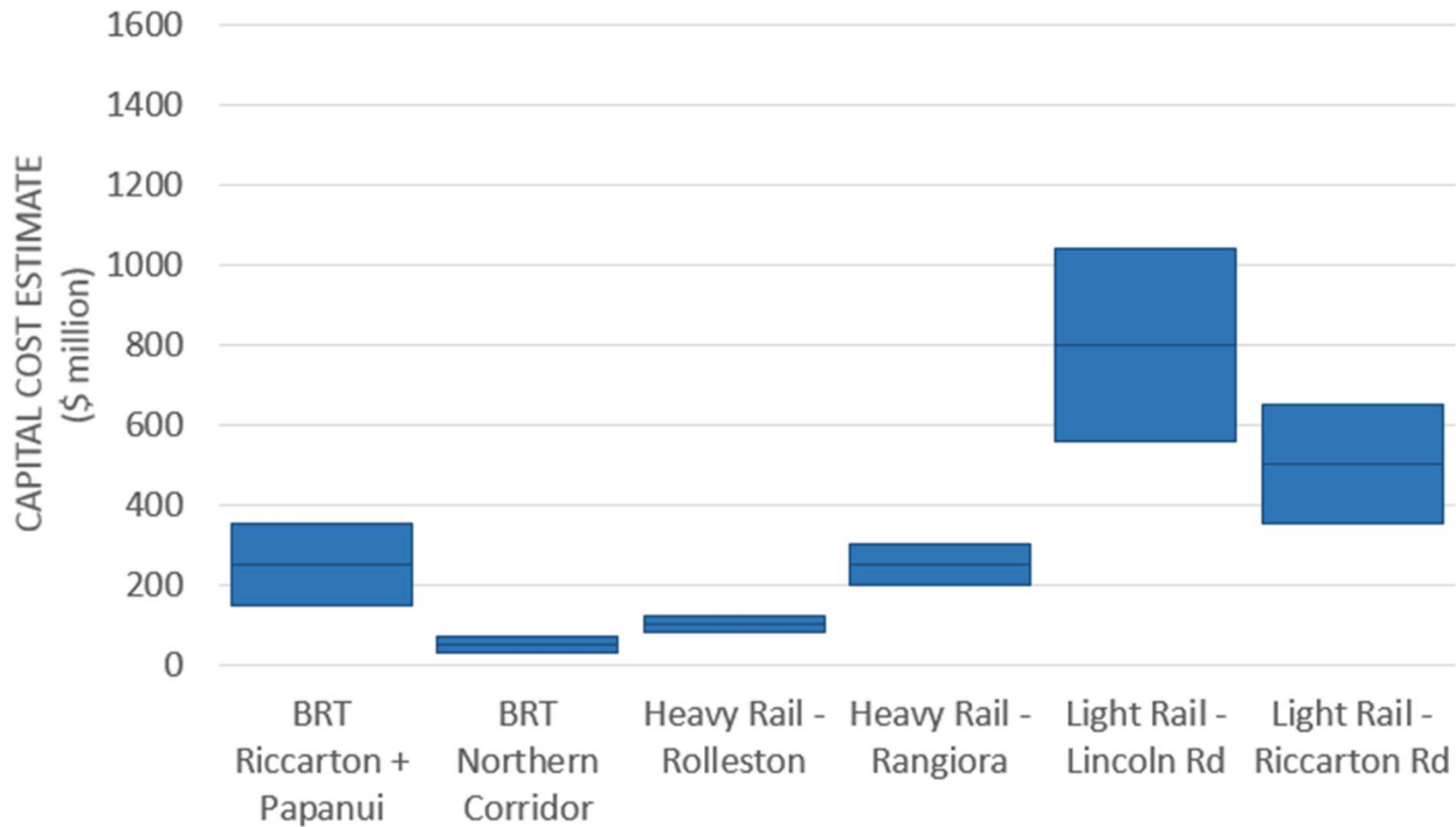
Chris Morahan

Transport Engineer/Planner

Capital costs

- Very rough estimates!
- Based on “per kilometre” rates from:
 - Recent bus priority works – Riccarton Road, Manchester Street Bus Lanes, Lincoln Road Bus Lanes
 - Recent light rail projects – Canberra, Newcastle, Sydney
- Some estimates already done:
 - Christchurch 2011 Riccarton Light Rail Study
 - Christchurch 2005 Heavy Rail Study

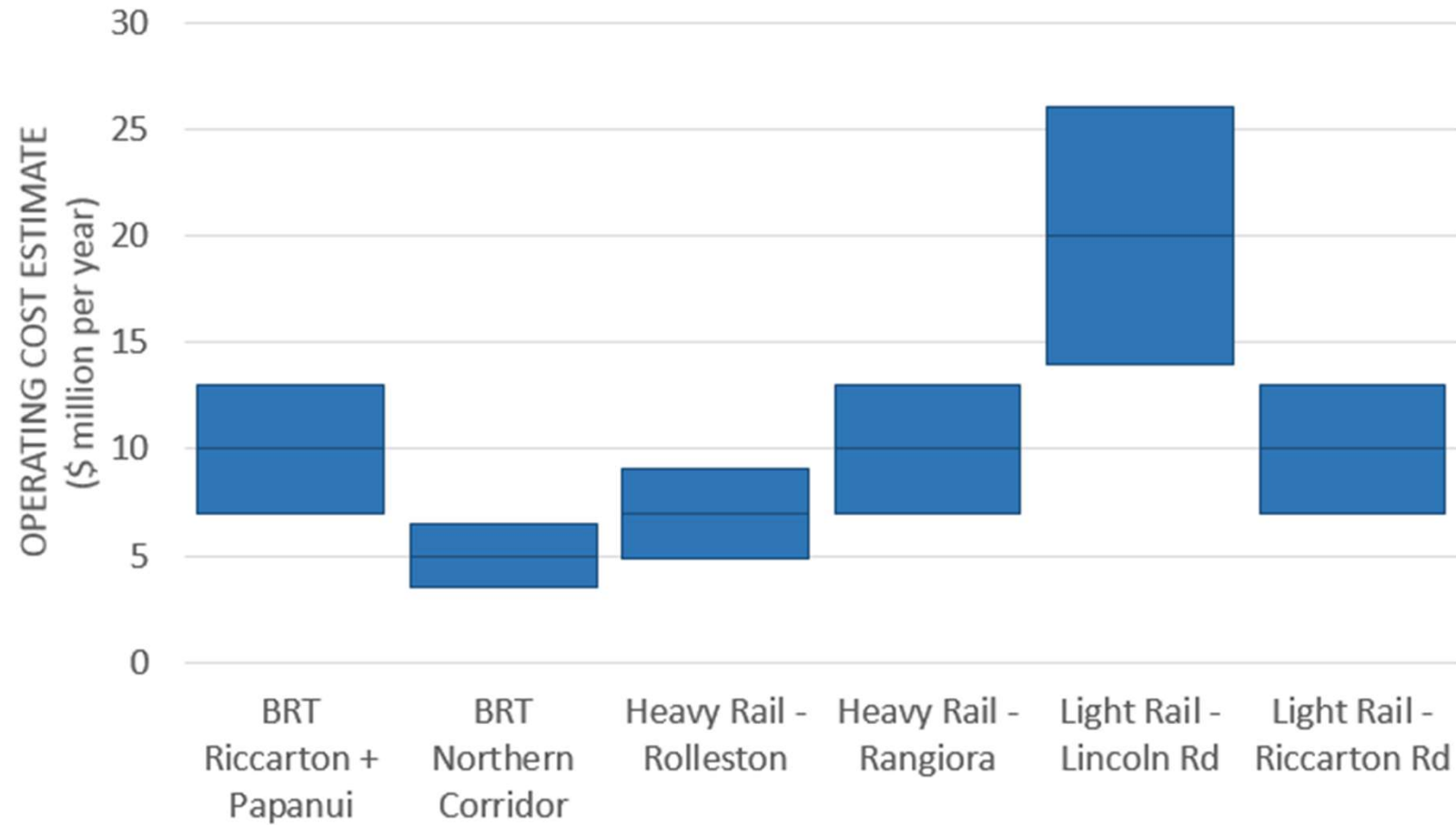
Capital costs



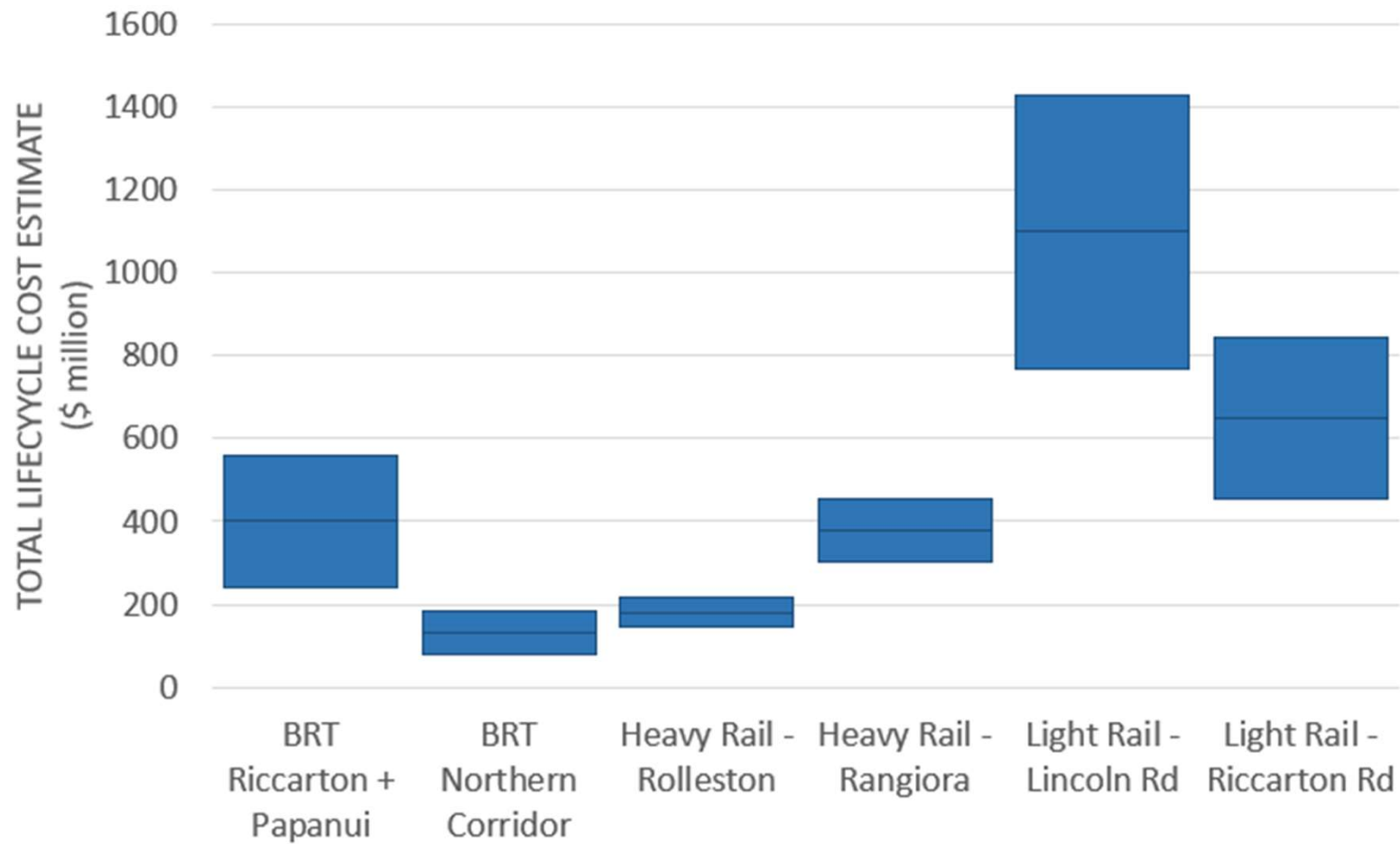
Operating costs

- Even rougher than the capital cost estimates!
- Based on:
 - BRT – current costs of operating buses in Christchurch. Assumed bus frequencies would roughly double
 - Heavy rail – costs of operating trains in Wellington. Assumed similar frequencies to there (10 min peaks, 20 min off-peaks)
 - Light rail – costs of operating light rail in Canberra

Operating costs



Combined costs



Summary of Options – costs & benefits

Option	Annualised cost/yr (\$m)	Score
1. BRT Riccarton & Papanui	\$16-37m	4.7
2. BRT Northern Corridor:	\$5-12m	6.2
3. Rail to Rolleston:	\$11-16m	7.9
4. Rail to Rangiora:	\$20-30m	8.0
5. Light rail Lincoln Road:	\$51-94m	7.4
6. Light rail Riccarton Road	\$30-56m	5.1

Over to you! Discussion

(~10 mins)

In your tables *(move around if you wish)*:

- **Group discussion** about Evaluation results
 - Do you agree? Do these surprise you?
 - Which Options should we continue to explore?
- Consider costs of Options
 - Do the costs seem about right?
 - Do these cost estimates change your views on any of the options?
- We will **report back** on what we hear



How are we going to Pay for it?

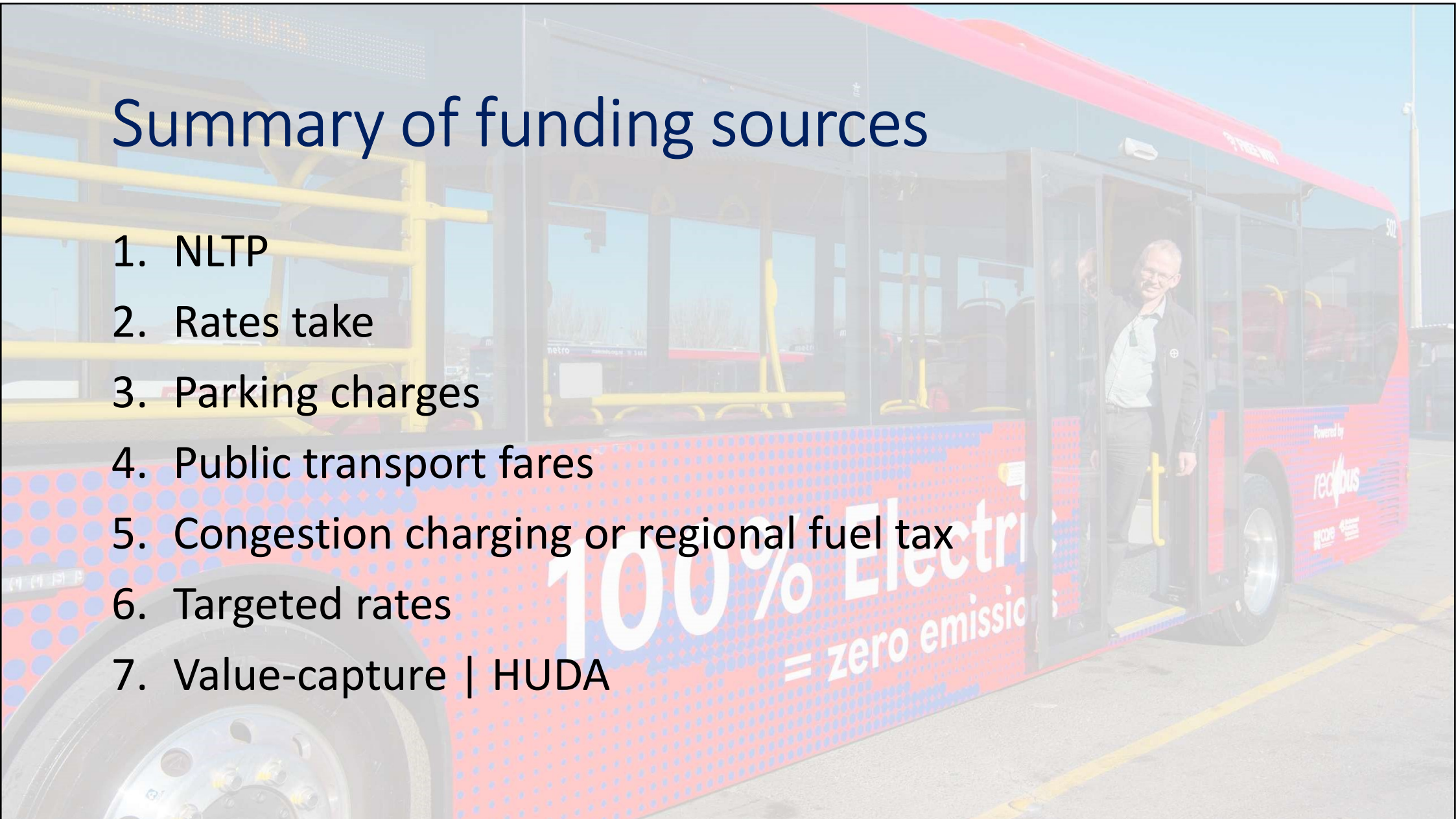
Axel Wilke

Transport Engineer/Planner



Summary of funding sources

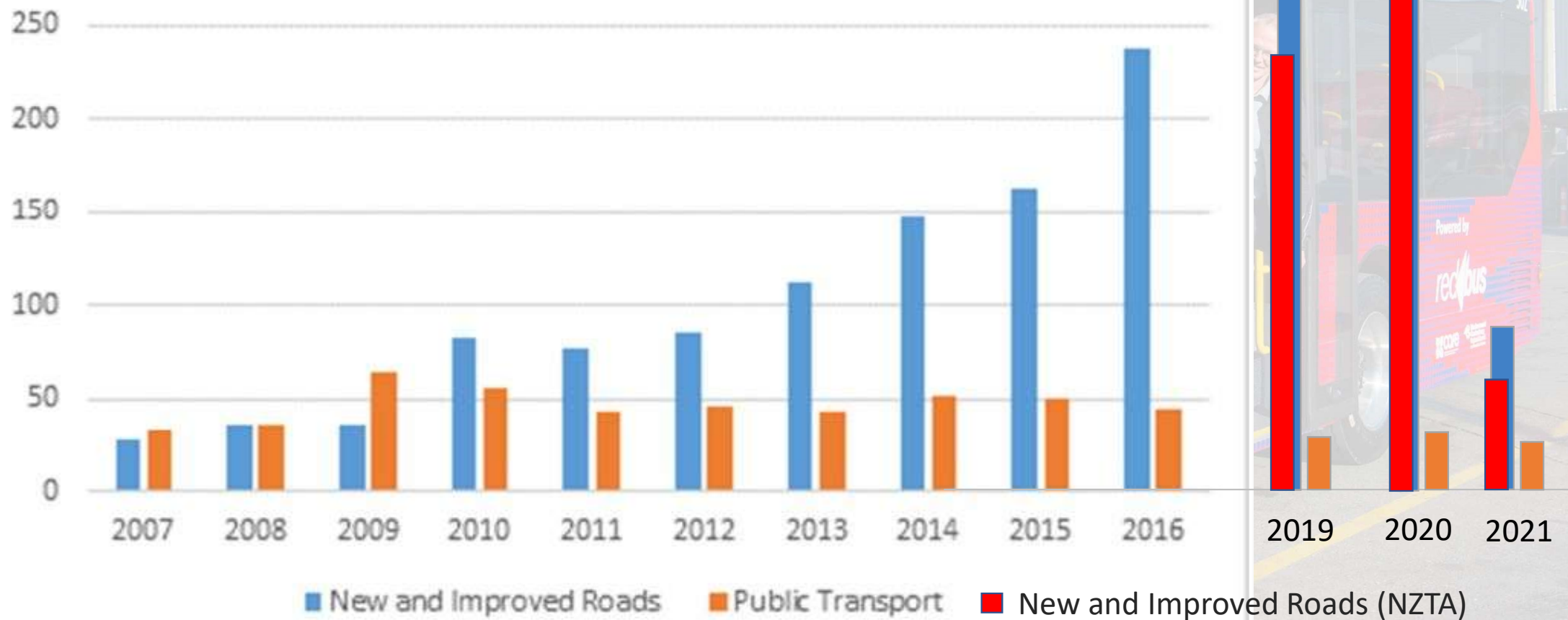
1. NLTP
2. Rates take
3. Parking charges
4. Public transport fares
5. Congestion charging or regional fuel tax
6. Targeted rates
7. Value-capture | HUDA



NLTP (National Land Transport Programme)

\$50m/year

Figure 14: Transport Spending in Canterbury per Year^{xxx}



Rates

- Could raise additional income through rates
- Post-EQ, it feels we have maxed out on what people want to afford
- Suggest only viable option is to reprioritise **existing** spending
 - No more four-laning of roads
 - Take funding for PT projects instead

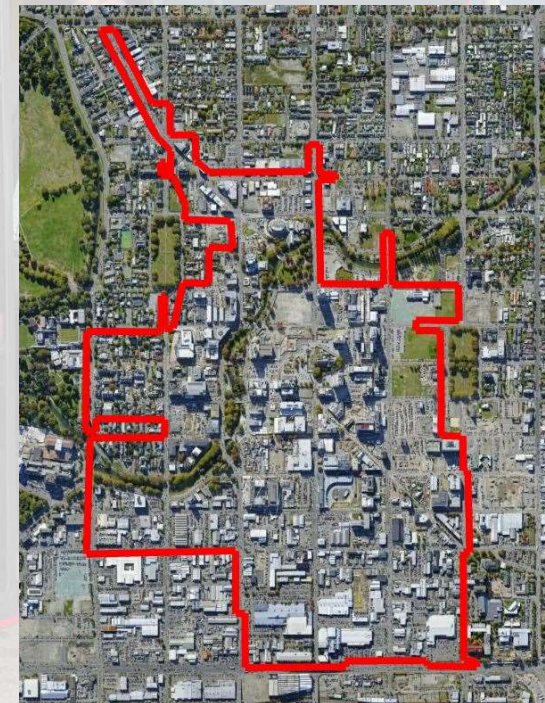
100% Electric
= zero emissions

Up to \$10m/year

Paid parking

Up to \$10m/year

- Need paid parking in areas of high parking demand (80% +)
 - Central city outside red cordon
 - Area around malls
 - University
 - Sydenham, Middleton
- Has Central City Business Association (CCBA) support
- Appears to have central city residents support
 - Need exemption system



Two objectives: gain revenue and suppress travel demand

Public transport fares and other income

PT costs impacted by

- Inflation (including diesel price)
- Fleet (conversion to EV?)
- Frequency & new services
- Rail / rapid transit

Income impacted by

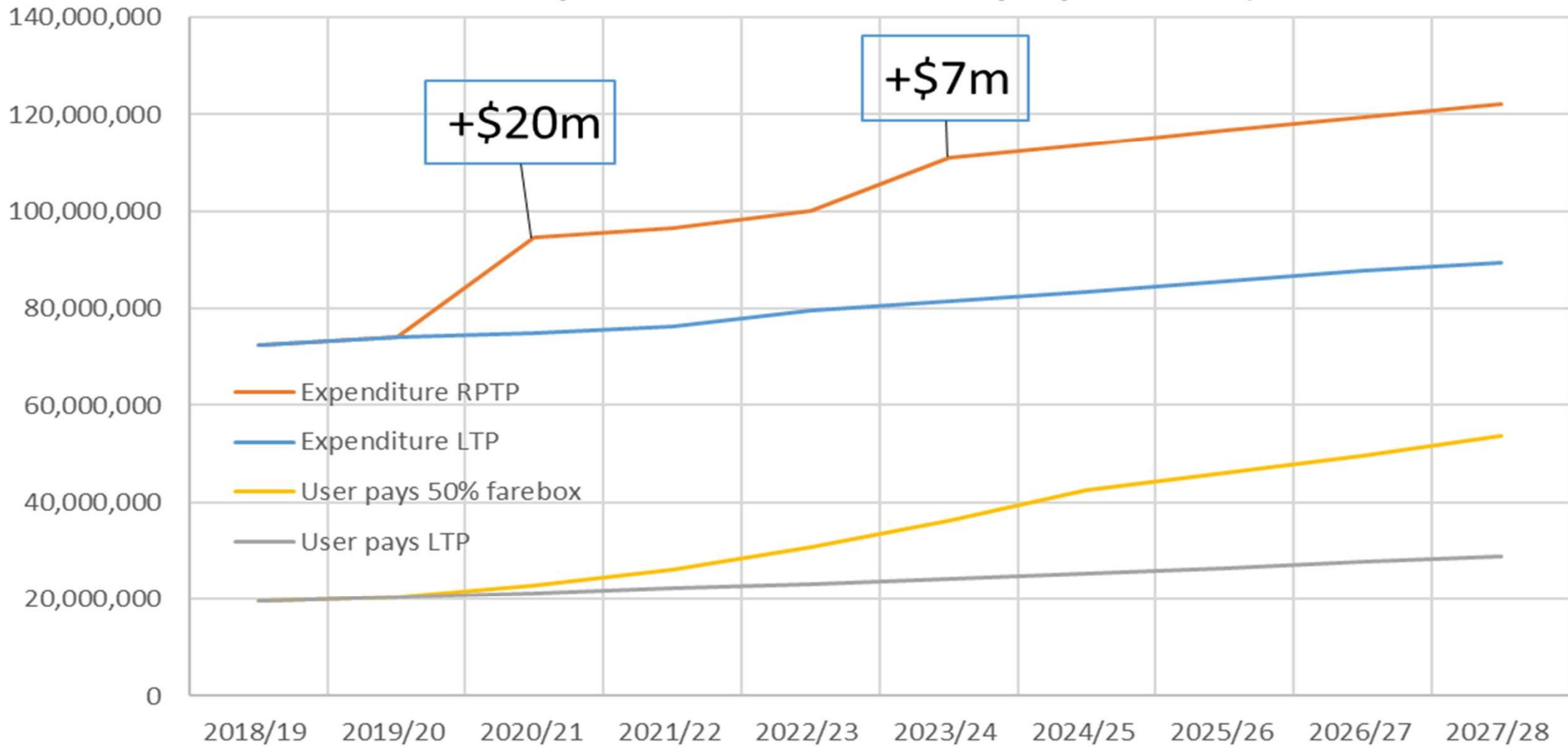
- Patronage
- Ticket costs
- Funding assistance rate
- Targeted rates

100% Electric
= zero emissions

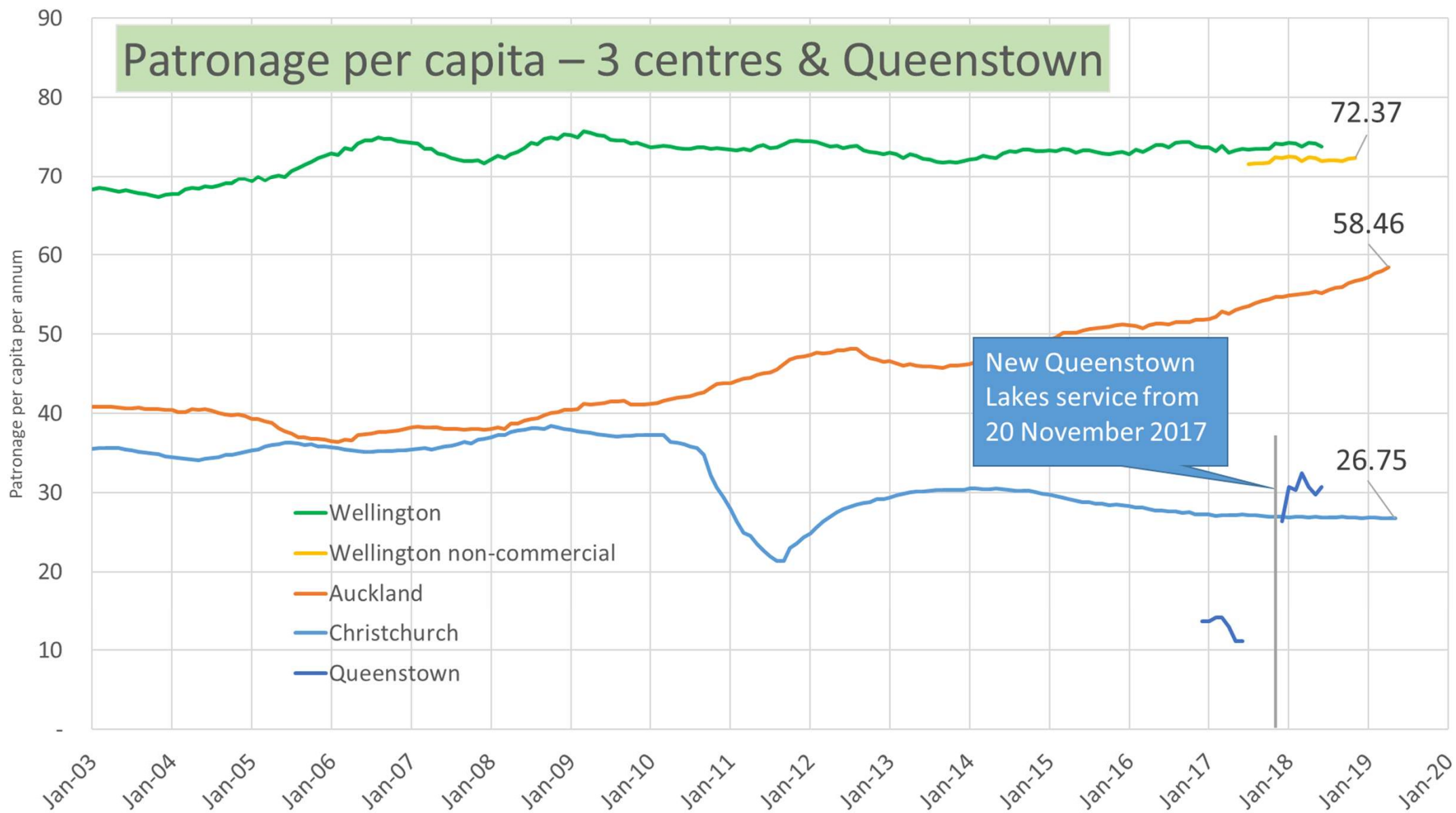
Up to \$20m/year

Expenditure & User pay

\$ per annum



Patronage per capita – 3 centres & Queenstown



Congestion charging & regional fuel tax

Cordon system

- Too many entry points
- Would work for Waimakariri but not Selwyn

Regional fuel tax

- Much simpler to implement than cordon charging
- Mentioned by government but needs their legislative support
- Referred to in RPTP

100% Electric
= zero emissions

\$40m/year @ 10c/litre

Targeted rates

- Tool available to and used by councils
- Rate high-density developments alongside rapid transit corridors
- Can also target certain areas (e.g. north of Waimakariri River)

100% Electric
= zero emissions

Up to \$5m/year

Value-capture | HUDA

- Can currently be done as a development levy
- Government could change legislation to charge existing properties that benefit from improvements → council income
- Govt could become developer (with land acquisition powers) and retain profits from development → government income
- Those can pay towards transport infrastructure

Up to \$5m/year

Summary of income potential

Option

income/yr (\$ million)

- | | |
|---------------------------|-------|
| 1. NLTP | \$50m |
| 2. Rates take | \$10m |
| 3. Parking charges | \$10m |
| 4. Public transport fares | \$20m |
| 5. Regional fuel tax | \$40m |
| 6. Targeted rates | \$5m |
| 7. Value-capture HUDA | \$5m |

Total: \$140m/year

100% Electric
= zero emissions

Over to you! Group-work

(~20 mins)

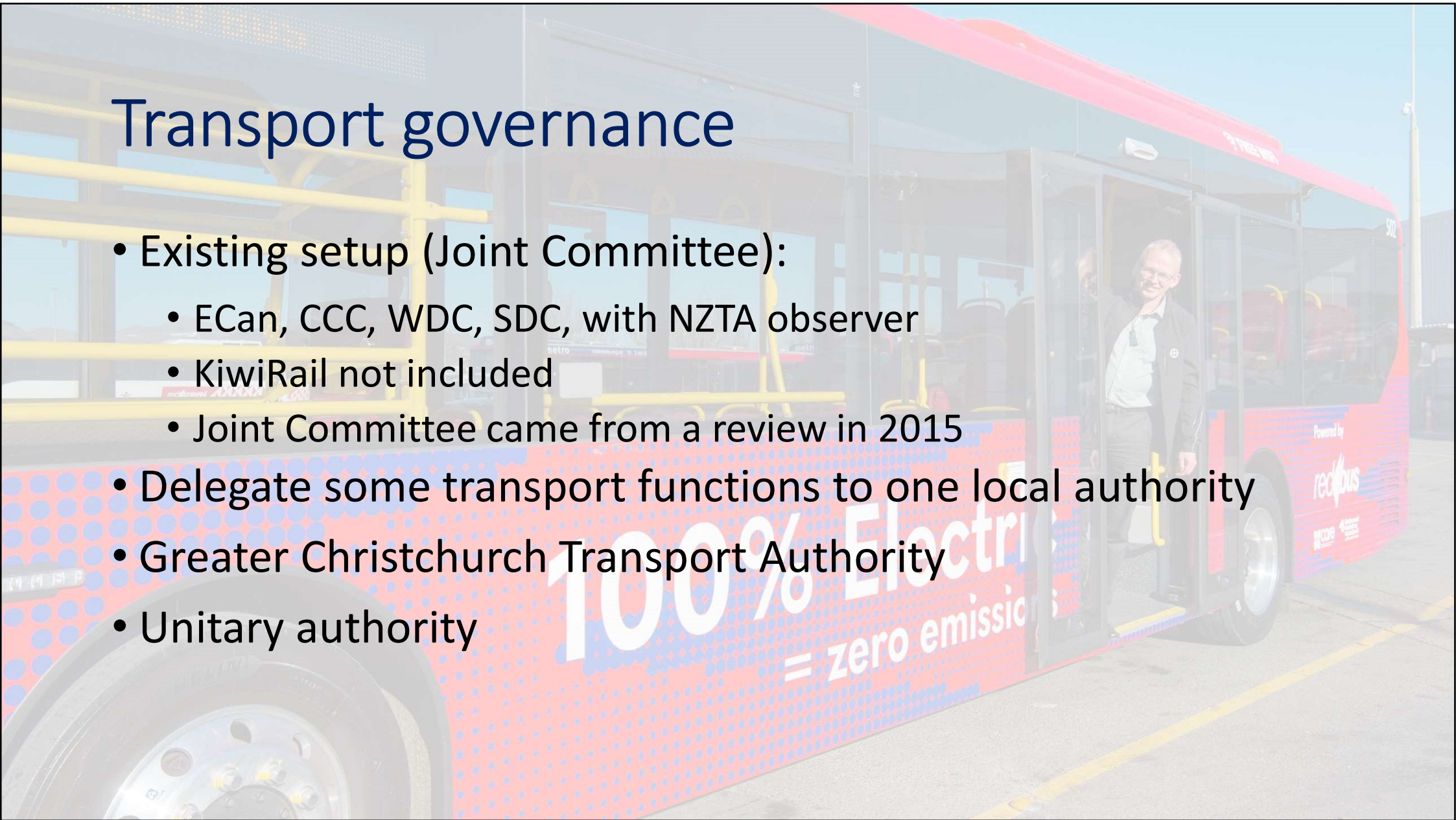
In your tables:

- **Group discussion** about Funding sources identified
 - What do you think of the potential funding sources?
- Paying for different rapid transit Options
 - How would you pay for one/some/all of these Options?
- Incremental benefit/cost assessment
 - For extra expenditure, what benefits do you get?
- We will **report back** on what we hear



Transport governance

- Existing setup (Joint Committee):
 - ECan, CCC, WDC, SDC, with NZTA observer
 - KiwiRail not included
 - Joint Committee came from a review in 2015
- Delegate some transport functions to one local authority
- Greater Christchurch Transport Authority
- Unitary authority



Land use/housing governance

- Greater Christchurch Partnership (ECan, CCC, WDC, SDC, NZTA, CDHB, Ngai Tahu, Regen Chch) + MHUD
- HUDA doing specific transport plus housing projects



Reminder

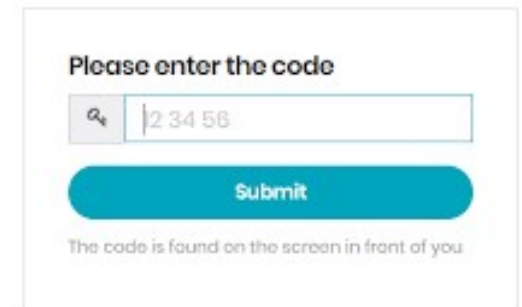
Menti exercise: What did you think of tonight?

Use your smartphone to give us some feedback



- Go to www.menti.com
 - Enter code number: **11 27 72**
 - Write some comments (up to 250 characters)
 - What did you learn? What did you like?
 - What didn't we cover? What do you disagree with? etc, etc

(You can submit more than one comment if you wish)
 - Click "Submit"
- (you can wait until the end to do this survey)*

A screenshot of the Mentimeter mobile app interface. It shows a text input field with the code "11 27 72" entered. Below the field is a blue "Submit" button. Above the field, it says "Please enter the code". Below the button, it says "The code is found on the screen in front of you".

Follow up

- We will collate your workshop contributions
 - Collect your worksheets
 - Menti survey feedback
- Report back via
 - Talking Transport: www.talkingtransport.com
 - CHAT Club Facebook page: fb.com/groups/248229305886431/
(CHAT Club – Canterbury Housing and Transport)

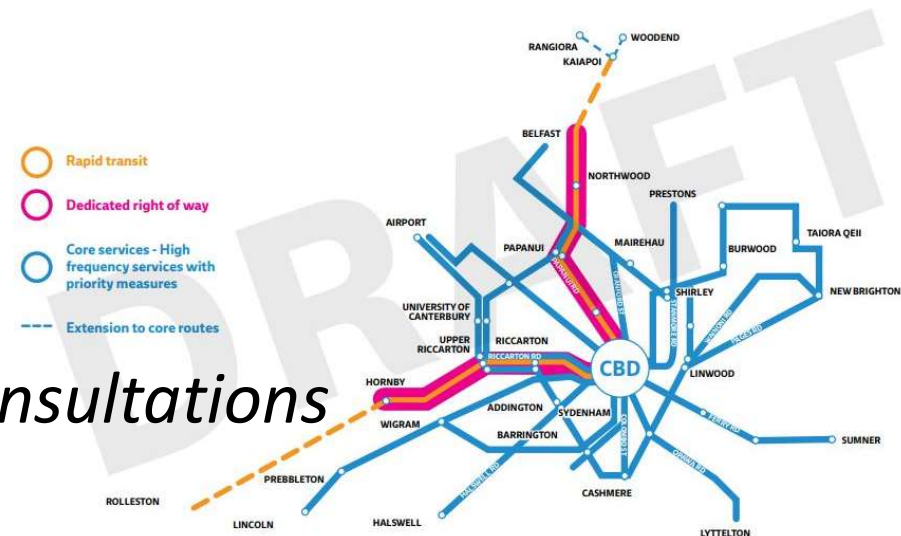
What next?

- No more CHAT Club workshops!
- But plenty is starting to happen...

Greater Chch Future Public Transport Business Cases

- Foundations (“Quick wins”)
- Expansion of high-frequency routes
- Rapid Transit corridors

Keep an eye out for consultations



Thank you!

- Don't forget to complete your final Menti survey (feedback)
- Go to www.menti.com
- Enter code number: **11 27 72**

See you next time!

givealittle.co.nz/cause/chat-club#

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from the  Spark Foundation