

# Funding Infrastructure to Support Growth

November 2016

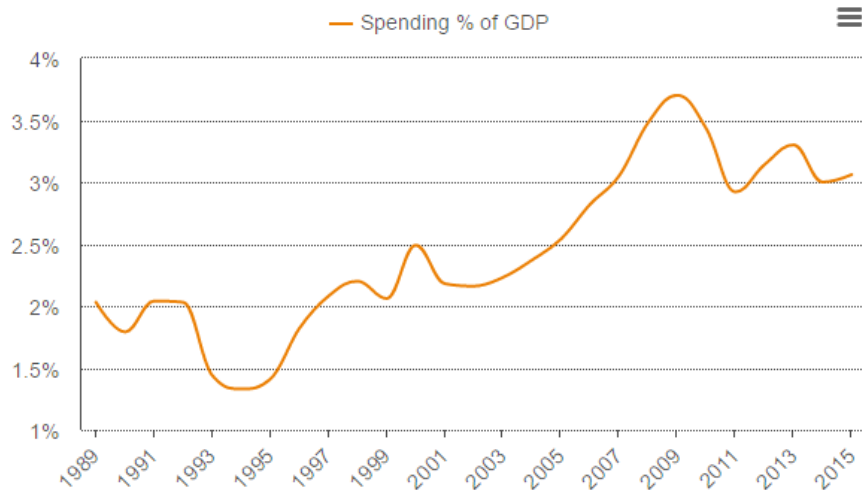
# Our members



# Infrastructure spending circa \$10 billion per annum

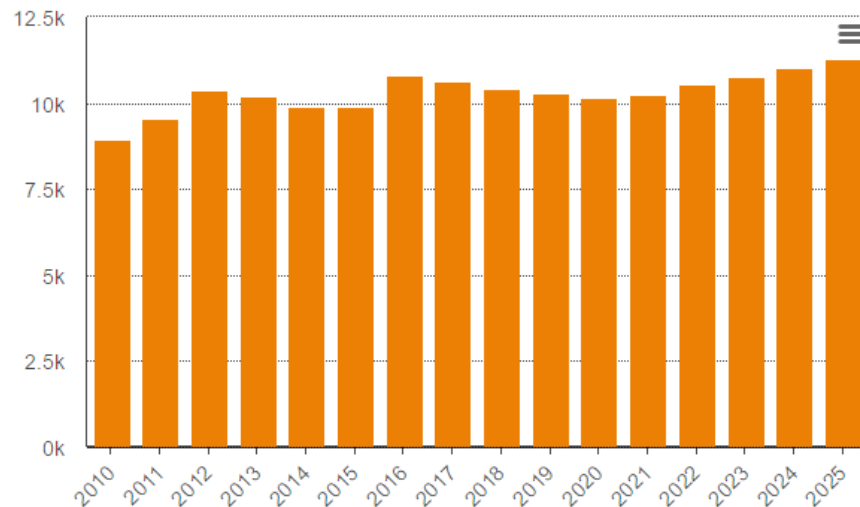
## Infrastructure spending

As a % of GDP, nominal



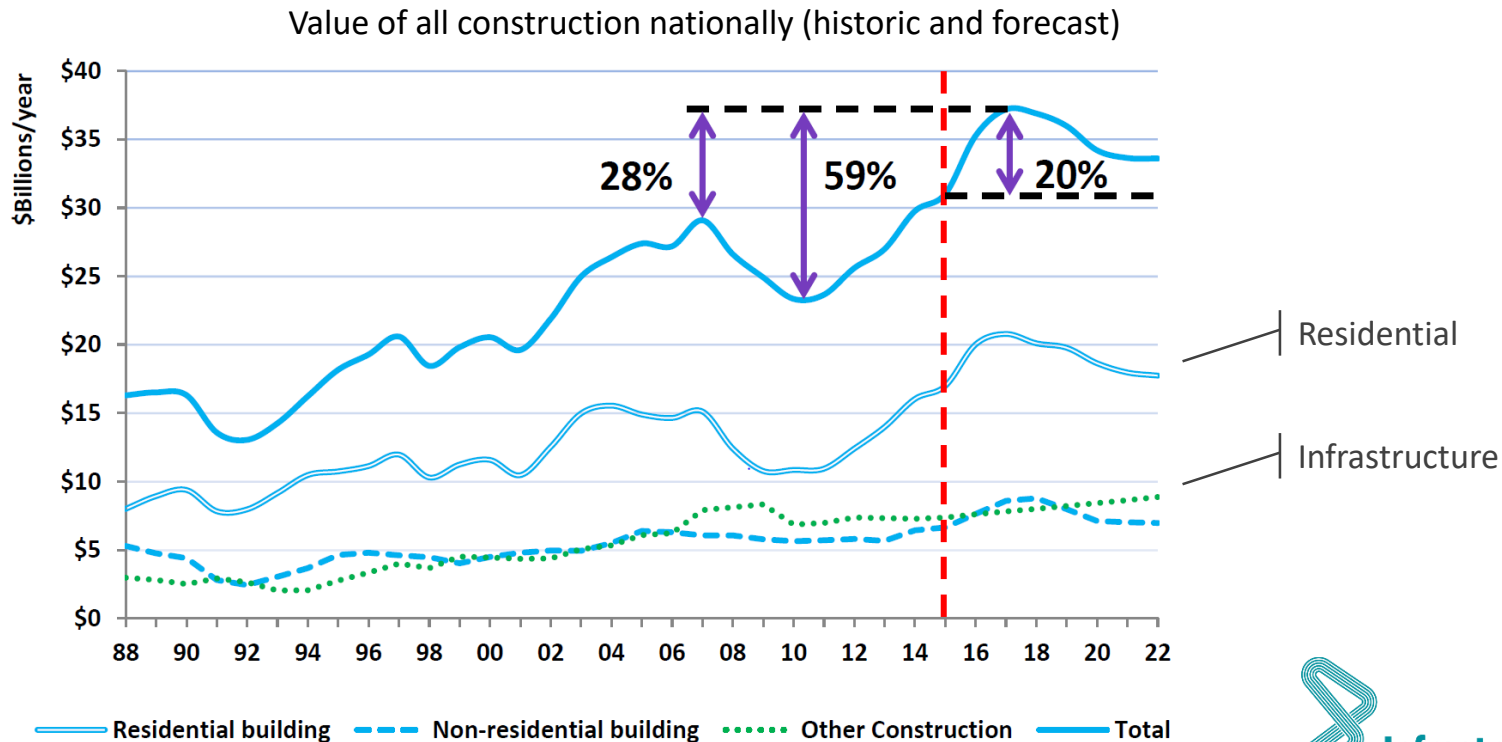
## Infrastructure spending

June years, \$m



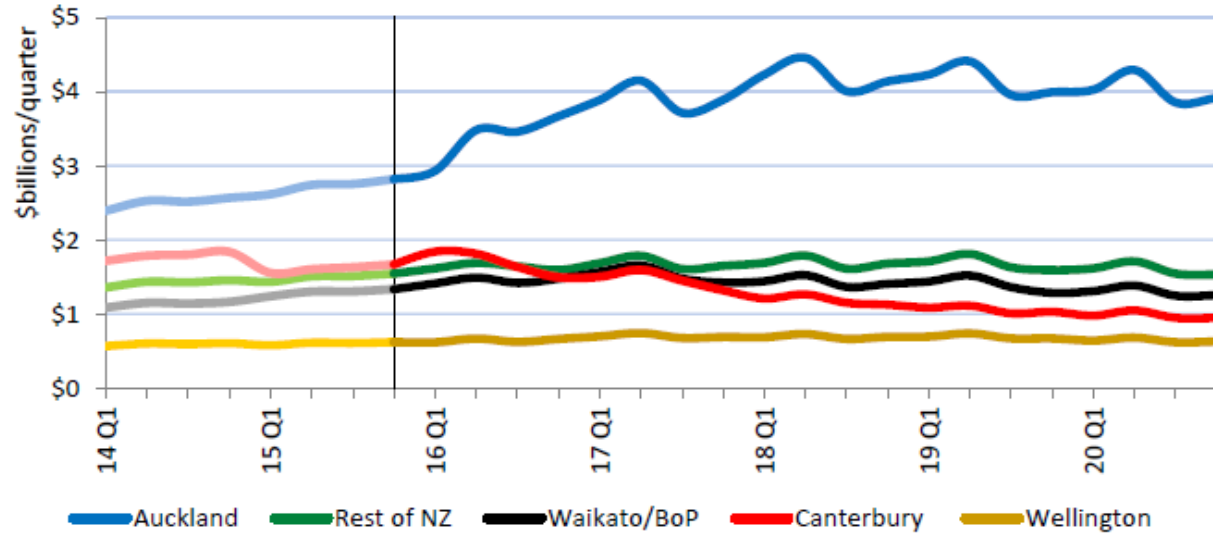
Source: Infometrics

# But lagging growth in residential development



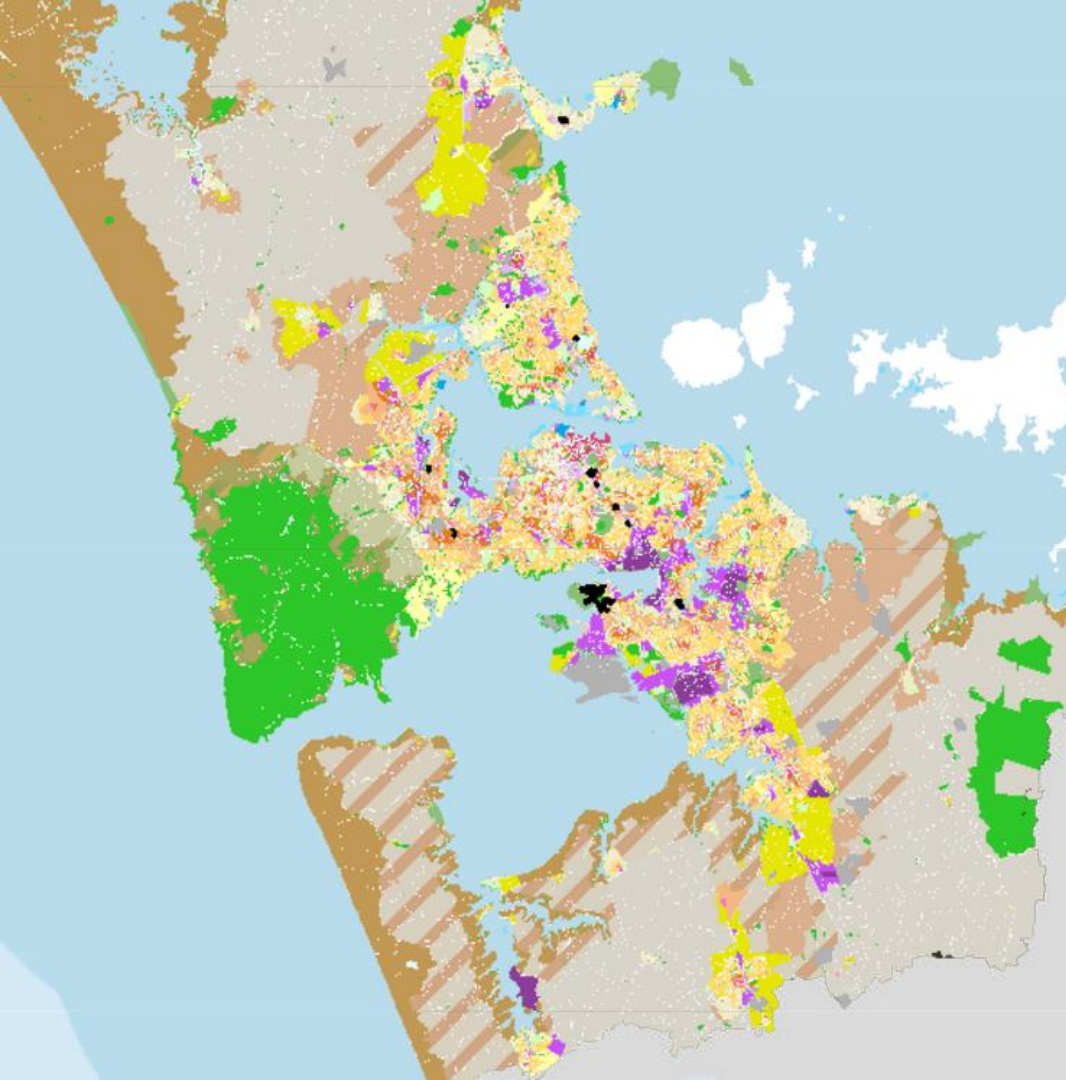
# Geographic Split

Value of all construction by region



Source: BRANZ / Pacifecon

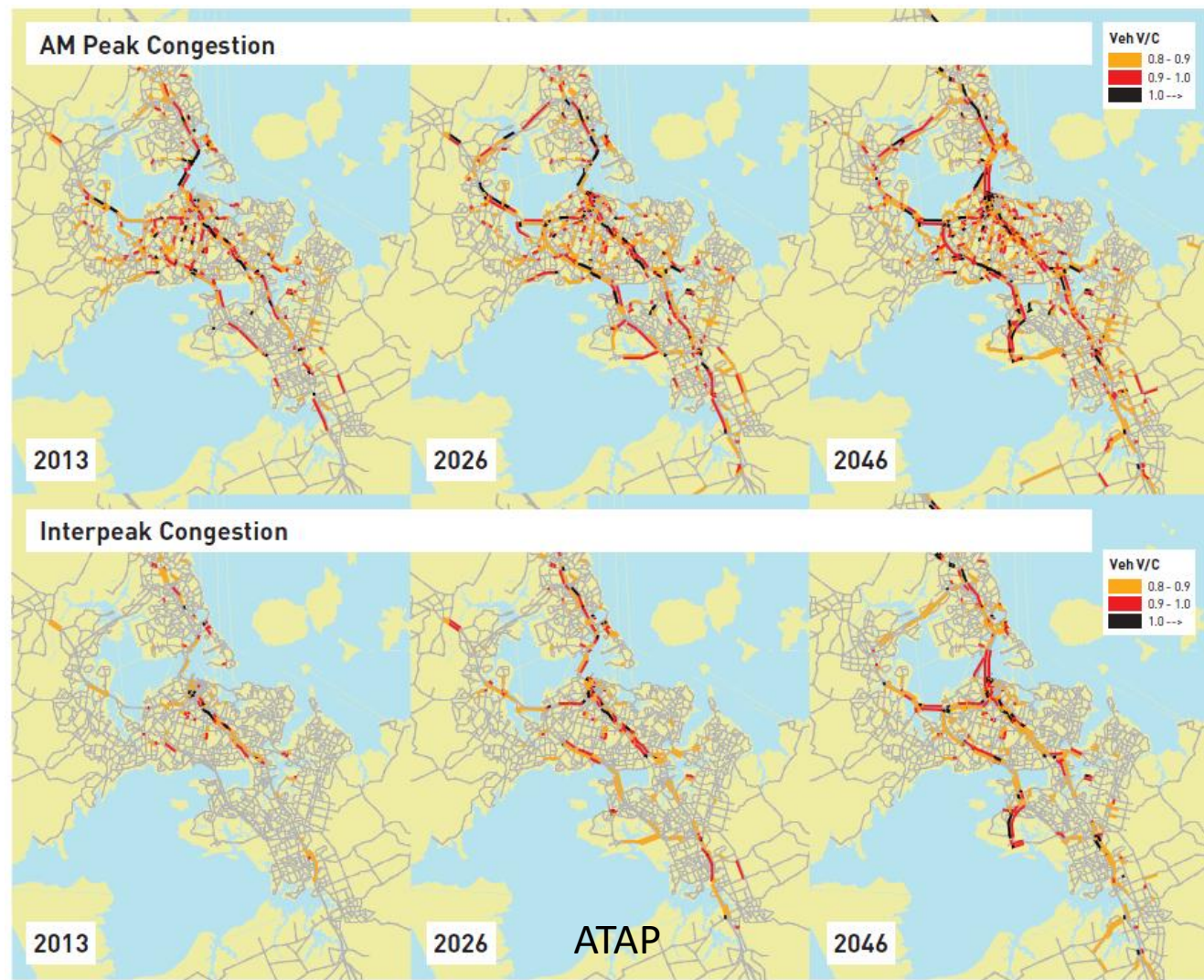




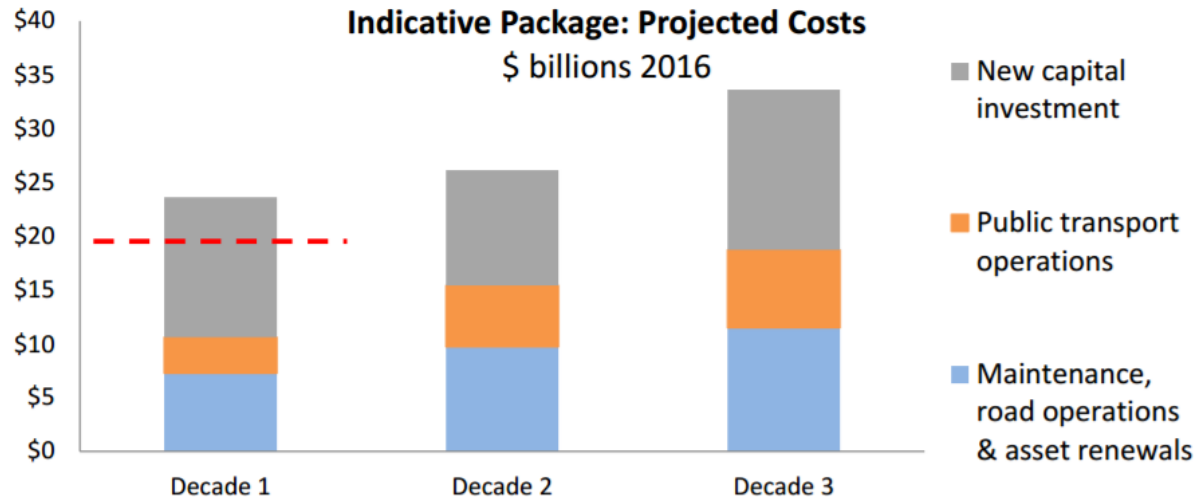
# Auckland Unitary Plan

- ✓ Provides capacity for growth
  - ✓ Removes unnecessary barriers
  - ✓ Simplifies development
- But...

The result of  
this growth  
plan is (a lot)  
more  
congestion!



# Auckland Transport Alignment Project Funding Gap



- First decade cost estimate for indicative package is \$23.7 billion
- Estimated funds available from current funding plans \$19.8 billion
- Approx. \$4 billion funding gap in first decade



# Financing options...

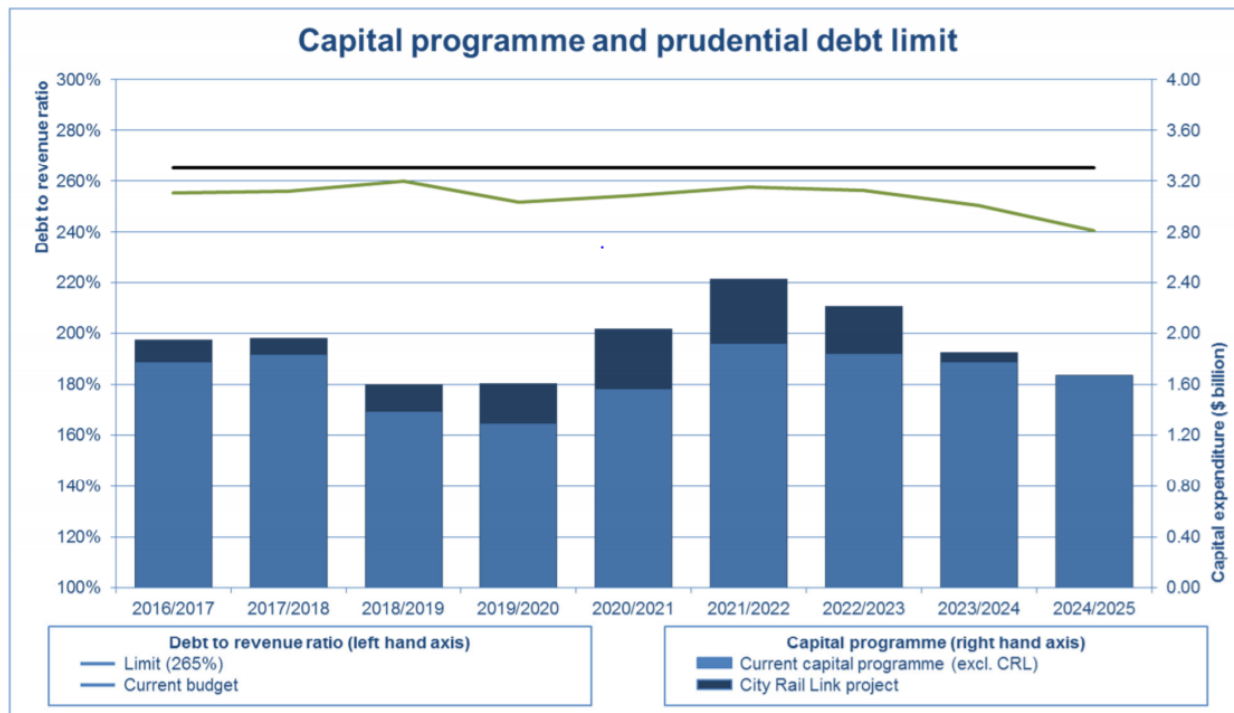
- Council or government debt
- Infrastructure Bonds
- Public Private Partnerships



- All forms of debt
- Allow time payment
- Intergenerational equity
- But...
- Where does the money come from to repay the debt?

# Auckland Council Debt to Income Ratio maxed out

Finance and Performance Committee  
10 November 2016



# Four funding options...

× Taxes

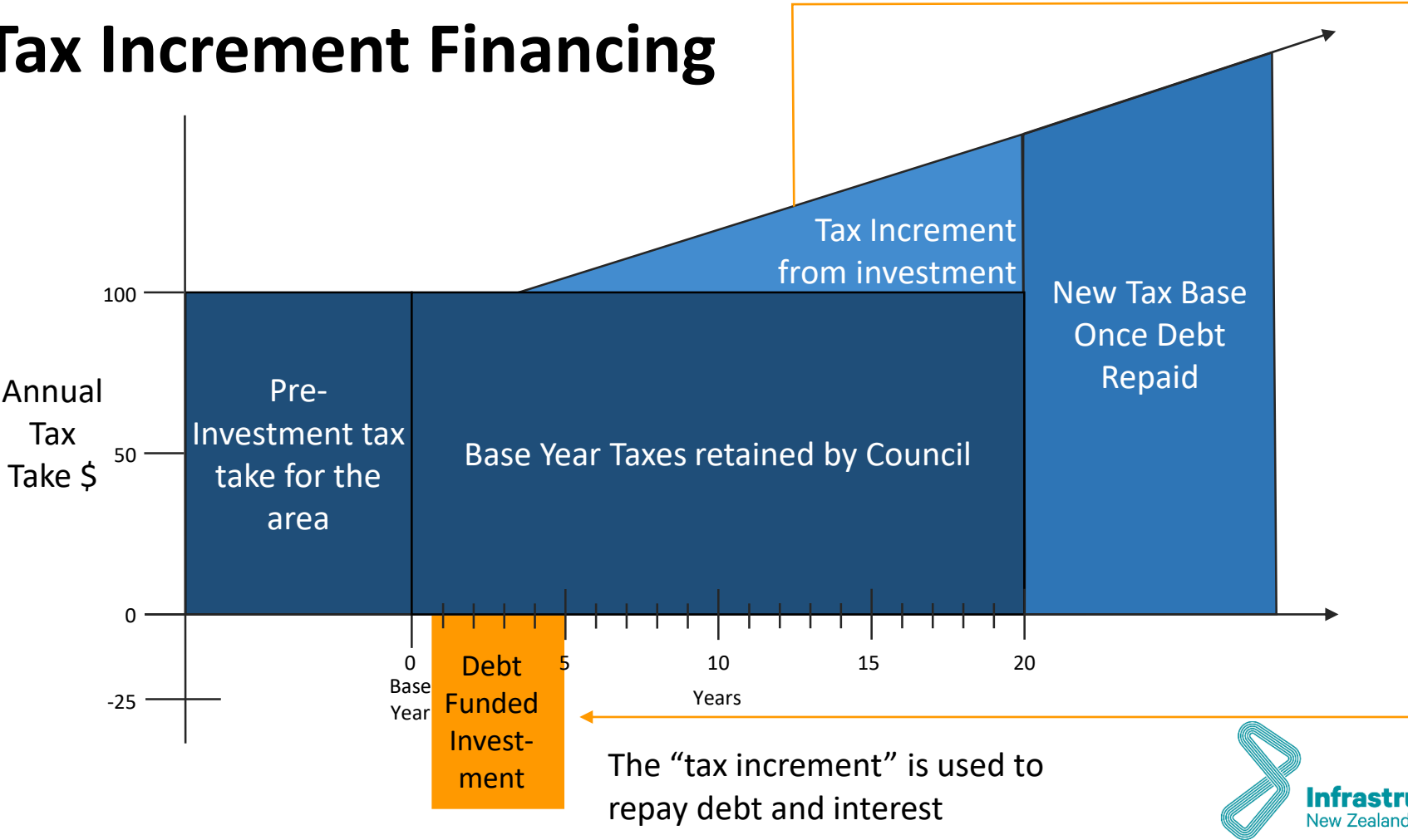
✓ User pays  
(prices)

✓ Value Creation  
and capture

✓ Capital recycling



# Tax Increment Financing



# Private Capital

## Barangaroo

- 22 hectare, \$6 billion Barangaroo precinct
- 24,000 jobs,
- \$2bn per annum to State GDP
- 11 hectares of public domain
- Barangaroo Delivery Authority manages the State's interests
- Barangaroo Delivery Authority Act
- Lendlease won development right as master developer
- 99 year lease
- Leveraging private capital - Commercial hub funds headland park & public space





# Vision linked with Delivery Capability at Scale



“Nine Elms The greatest transformational story at the heart of the world's greatest city...”



High Speed 2 - £50 billion interregional connection



25,000 new jobs

20,000 new homes

3 new tube stations

2 town centres

Heritage restored

£8 billion economic boost

All funding options

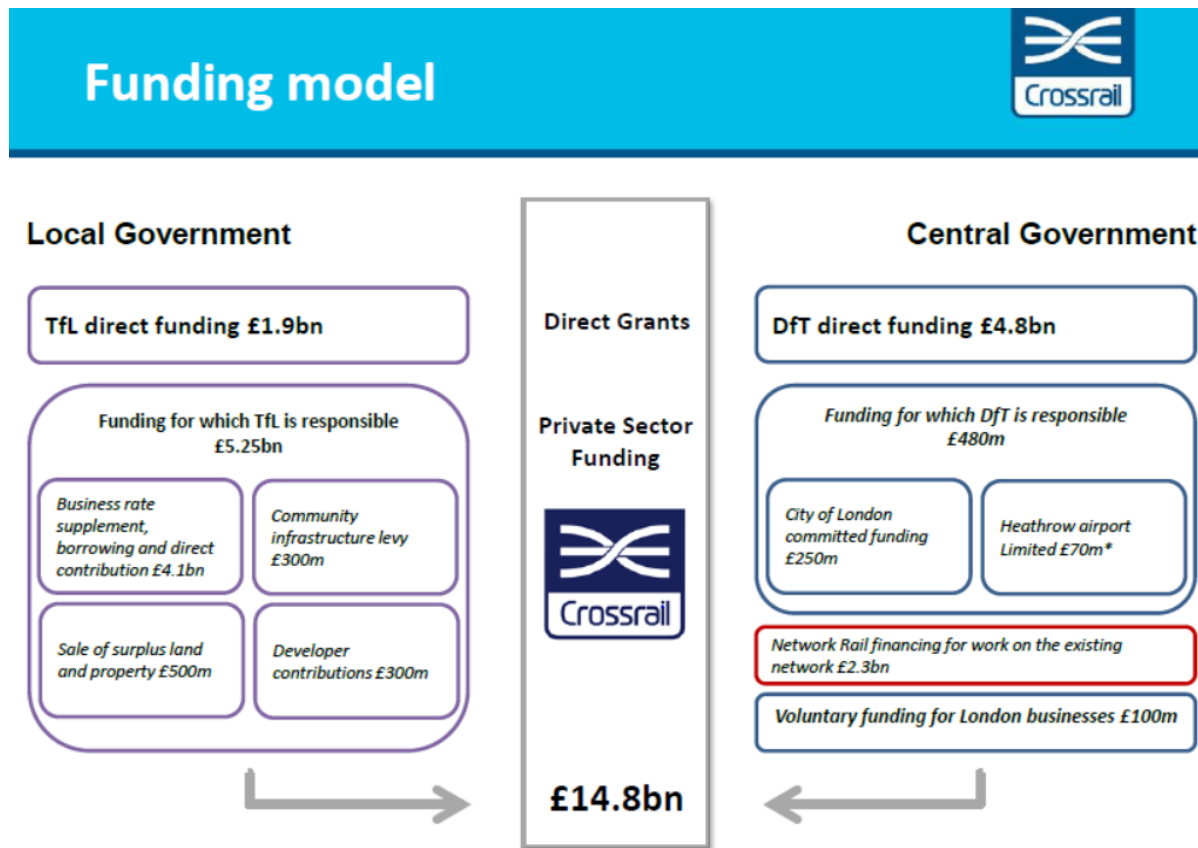
Private investment

Joint delivery



Nine Elms  
On the South Bank

# London's Cross Rail





# Value capture



## Business rate supplement - £4.1bn

- 2p levy on non-domestic properties with a rateable value of over £55,000 in London
- Less than one in five of London's businesses are liable to pay the supplement

## Developer contributions - £300m

- Charge per m<sup>2</sup> of commercial development within 1km of Crossrail stations and in certain economic areas
- Contribution rate varies by commercial use and location

## Community infrastructure levy - £300m

- Levy on developments (excluding charity, medical and education developments) in London
- Rate set by the Mayor (£20 - £50 per m<sup>2</sup> of development)
- Levy rate varies by London Borough, depending on Borough's perceived benefit from Crossrail
- Offset against developer contributions on same development (see above)



**Infrastructure**  
New Zealand

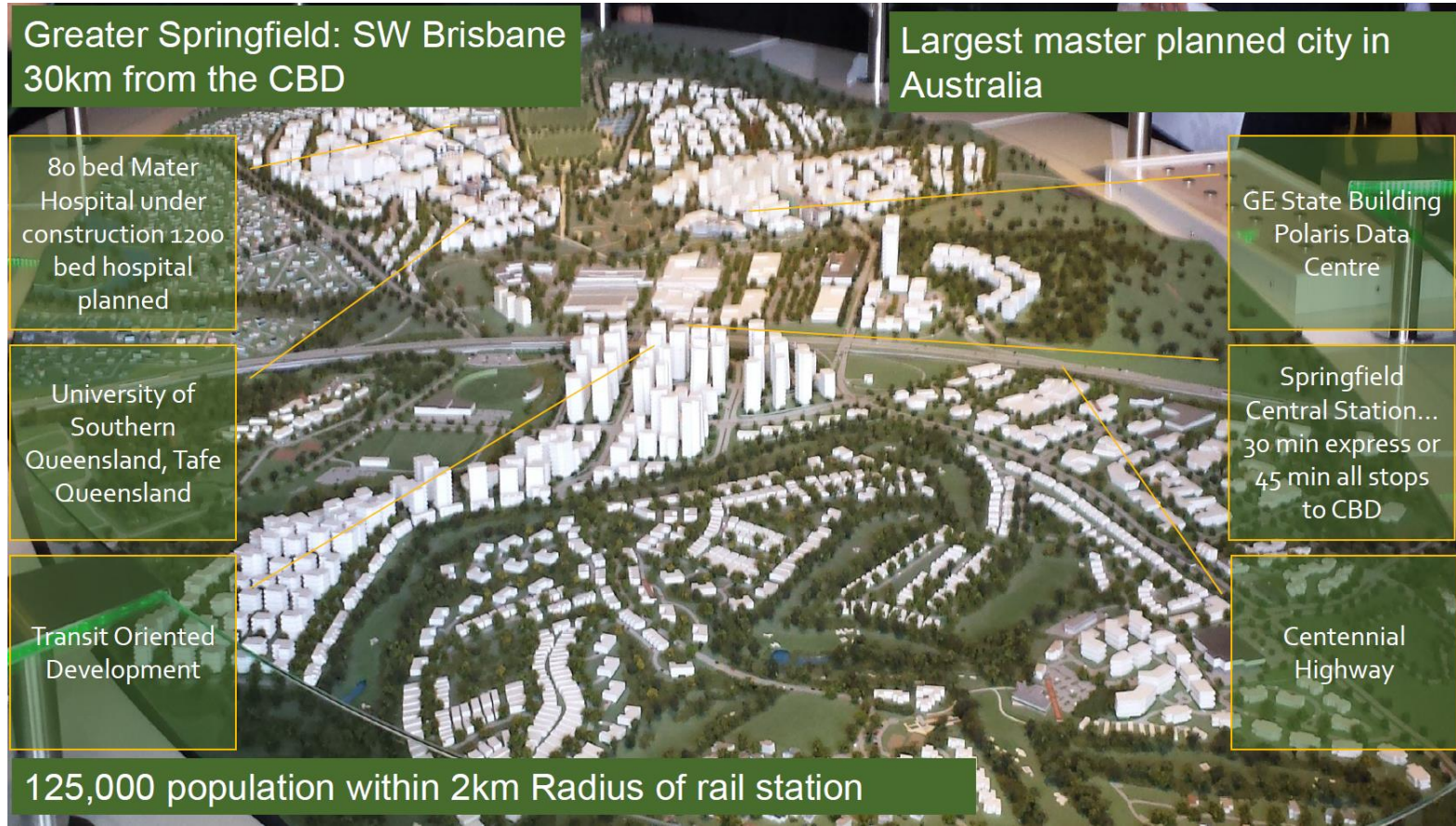
# Westconnex Sydney

- \$A16.8 billion
- BCR 1.8 incl WEBS
- 33km motorway
- 2/3 Underground
- Connect City, Airport and Port
- Revitalise Parramatta Rd
- Toll capped at \$7.85
- Capital recycling

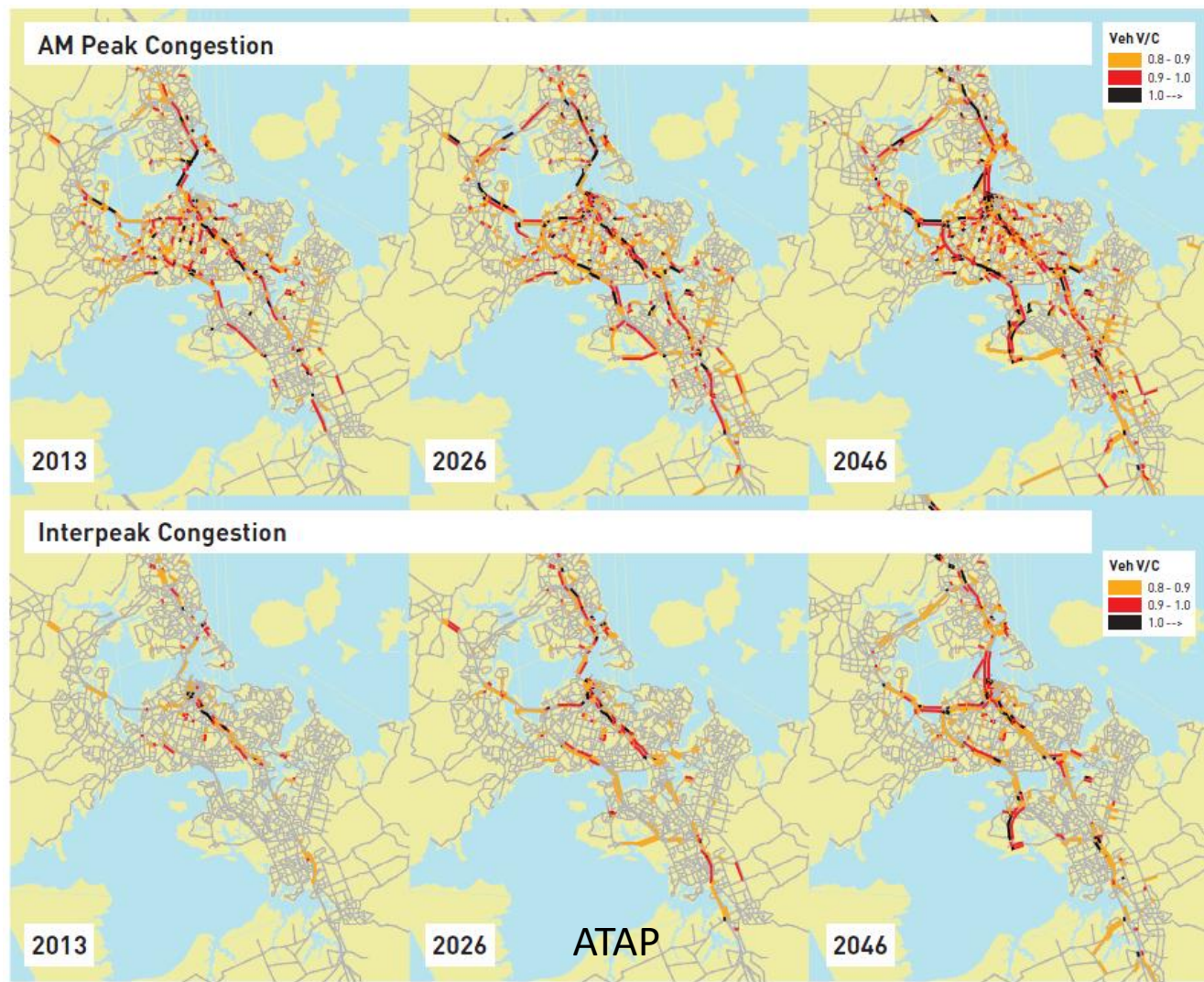




# Urban Development at Scale – Springfield Brisbane



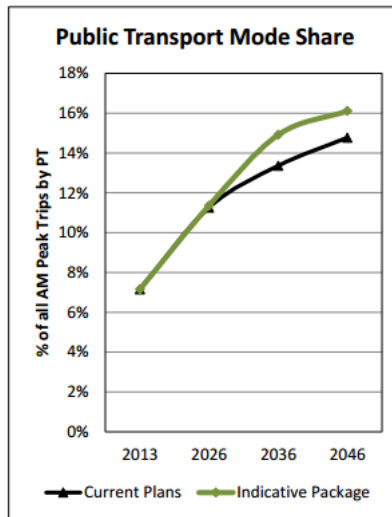
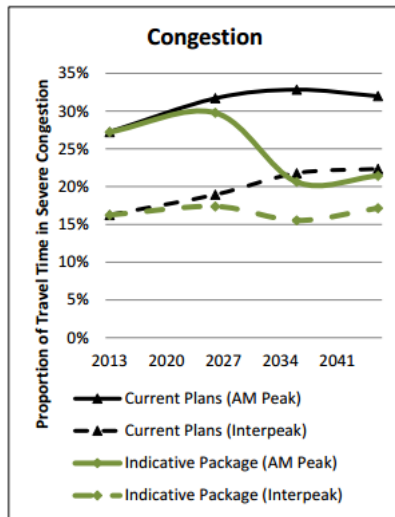
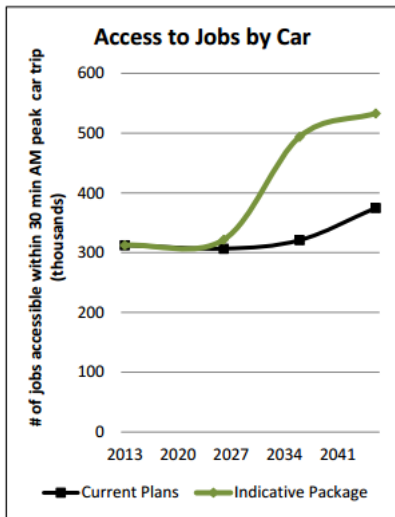
So, how do we fund the transport infrastructure needed to support growth?





# ATAP manages demand by introducing pricing by mid 2020s to manage traffic demand BUT....

- Prices proposed very high – up to 30 c/km – almost twice the cost of petrol (18 c/km)
- Doesn't address the \$400m per annum funding gap
- Doesn't address the current problems and congestion gets progressively worse meantime
- Significant social impact
- Politically untenable

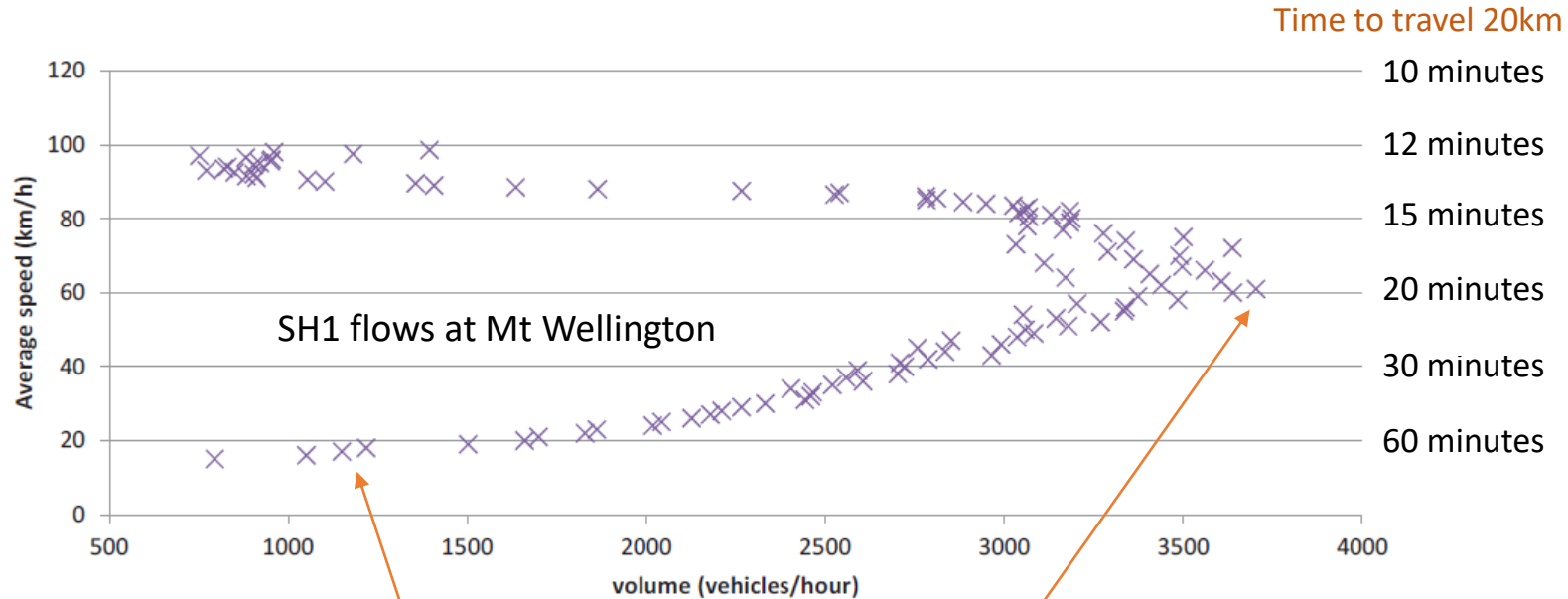


Extracted from ATAP reports...

Influence Demand package: hypothetical price levels (c/km)				
Area	Network	Peak	Inter-Peak	Off-Peak
Inner Urban (Isthmus)	Motorways	30	22.5	2.25
	Other Roads	22.5	15	2.25
Outer Urban	Motorways	22.5	15	2.25
	Other Roads	15	7.5	2.25
Rural	All Roads	2.25	2.25	2.25

# Dynamic motorway tolls could optimise traffic flow, travel times and raise funds for future investment in transport...

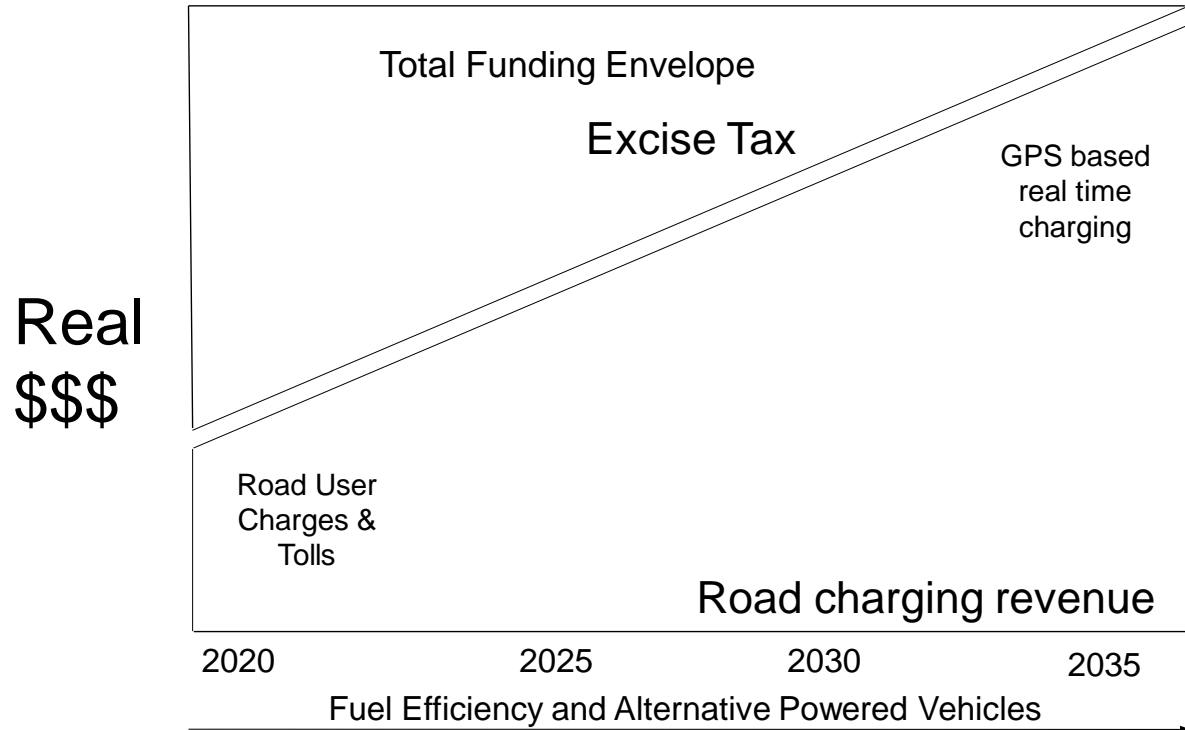
- Pricing and new car technology can be used to keep speeds between 60-80km/hr meaning more cars will use the network than is currently possible on congested motorways



Current traffic flow at peak

Charge a toll that maximises traffic flow and optimises speed (circa 60-70km/h)

# Road pricing will eventually replace fuel excise





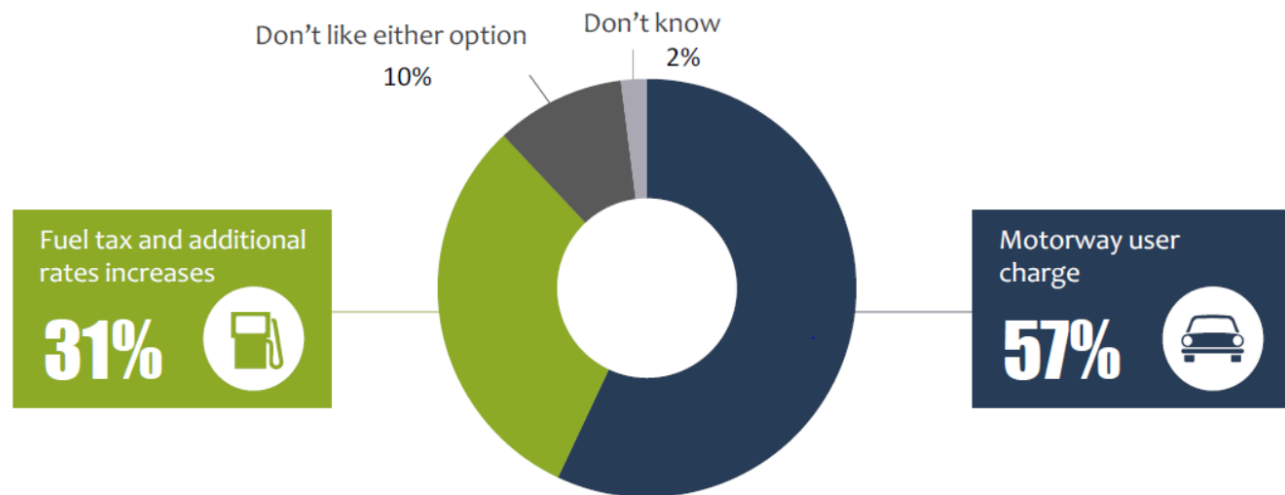
# Benefits of dynamic tolls on motorway

- ✓ Technically implementable today using number plate recognition technology
- ✓ No need to install GPS unit in every car
- ✓ Road users determine the price by their own behaviour – the higher the demand for motorway at peak, the higher the price
- ✓ Maximises the traffic flow through the motorway corridor and minimises traffic diversion onto local roads
- ✓ Raises the necessary money for investment in the transport system
- ✓ Optimises travel speeds – those who pay get a much faster trip – 20 mins to travel 20km vs 60 mins
- ✓ Provides a stepping stone towards full network pricing into the future



# Aucklanders prefer tolls over taxes

## PREFERRED FUNDING OPTION



Base: all respondents (5,022)  
Source: Q3

1c per litre +  
additional 1%  
on rates every  
year for 10  
years

Or

\$2.00 per trip

# Time for change

- The current plan does not deliver the outcomes we want
- Will take too long to realise benefits
- Better outcomes need better ideas:
  - Value capture
  - Capital recycling
  - Development at scale
  - Tolls
- If we act now we can design the future we want, or....

