

Rapid Transit Framework

Key Issues and Initial Insights

Why Waka Kotahi needs a clearer rapid transit policy framework

Successful rapid transit is critical to driving mode shift, reducing carbon emissions, shaping urban form and delivering better economic, environmental and social outcomes.

To ensure we realise these benefits and can deliver the next generation of rapid transit investments more efficiently, equitably and consistently, a clearer policy framework is required.

This framework needs to focus on:

- More clearly defining what is and is not rapid transit
- Planning rapid transit networks better, to support better decision-making on key issues like mode, timing and location
- Clarifying roles and responsibilities, to create more consistency and certainty about who does what
- Creating a more equitable and consistent funding framework

The Minister's letter of expectation asks us to partner with the Ministry and KiwiRail to create a single overarching framework for rapid transit, providing clarity for long-term strategies.

Rapid transit has been very successful when implemented

Auckland's Northern Busway has significantly reduced travel times relative to private car. The additional time savings have materially improved the generalised cost advantage for this corridor, incentivising mode shift away from private car, reducing carbon emissions and enabling higher density development around busway stations.

Better Urban Development Outcomes

Shaping urban form and development – N Busway, Smales Farm

2007

Smales Farm Station
Mt Fehin Busway

- The Northern Busway opened in 2008
- It catalysed the site's development; two office blocks were built to leverage the Smales Farm Station
- The award winning B:Hive building and amenity improvements opened in 2018
- The Smales Farm Plan Change enables 1,400 new apartments, 8 tower blocks up to to 30 levels, and creates 3,000 new jobs

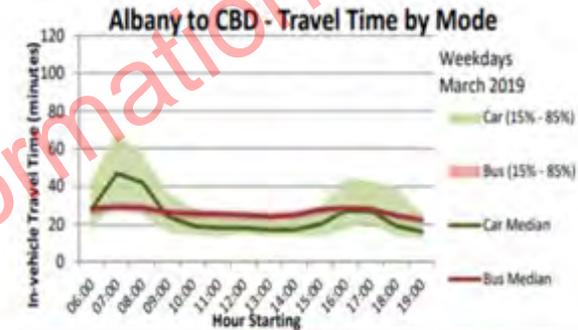
Today

B:Hive
Oxford Quay

Smales Farm Station
Mt Fehin Busway

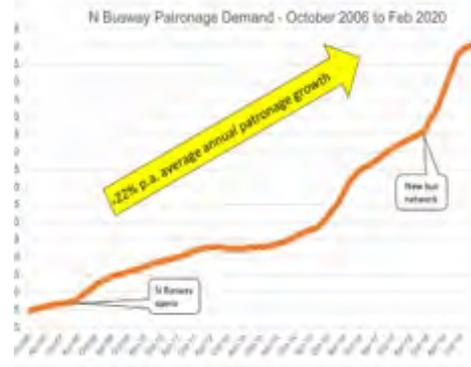
Future

Church Hill Station
Northern Busway

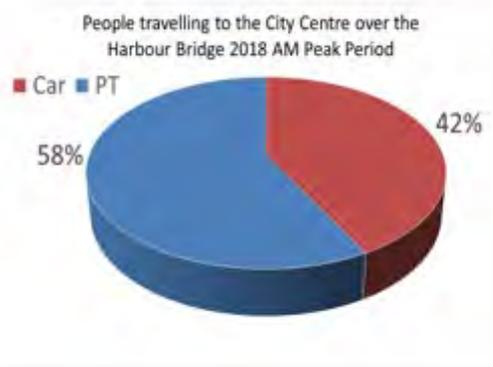


Faster and more reliable travel times than car during peaks on the N Busway lead to:

Significant patronage growth



PT Mode Shift

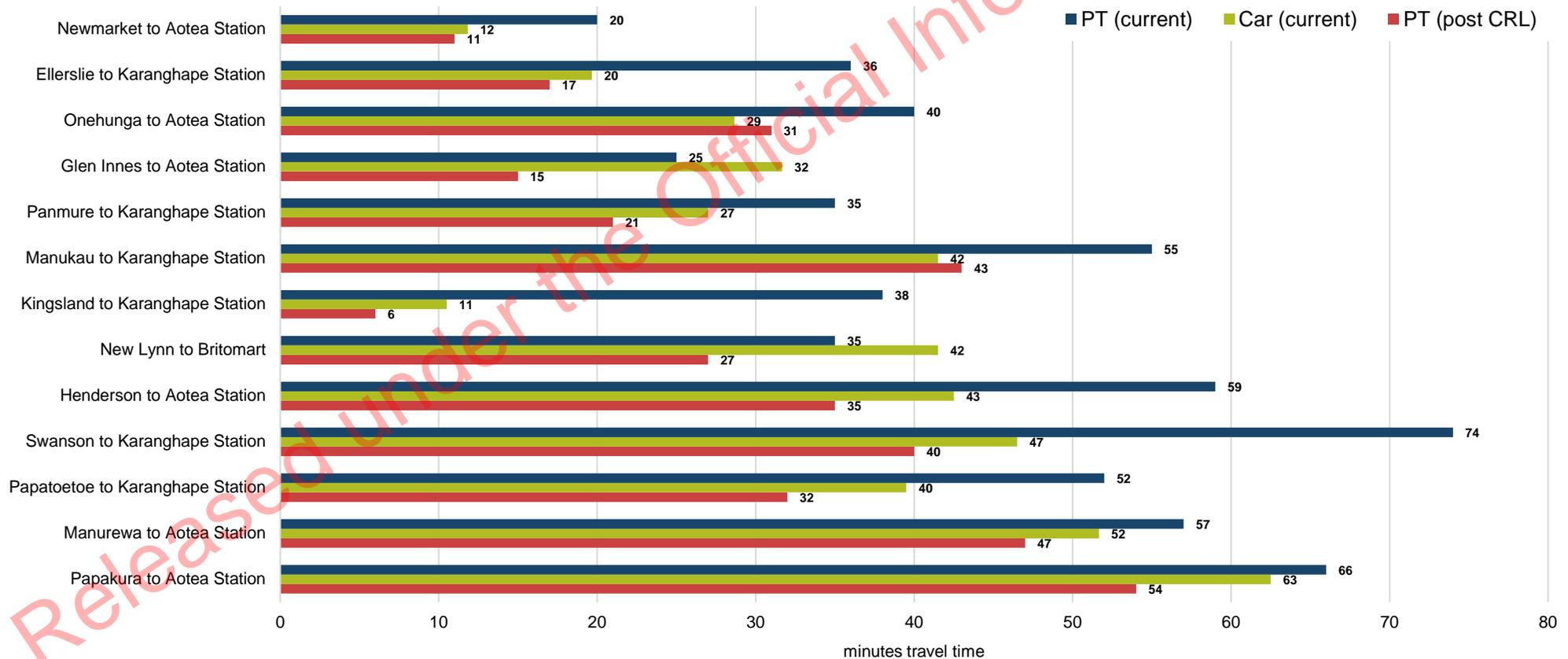


Released under the Official Information Act 1982

Rapid transit can deliver long-lasting transformational change

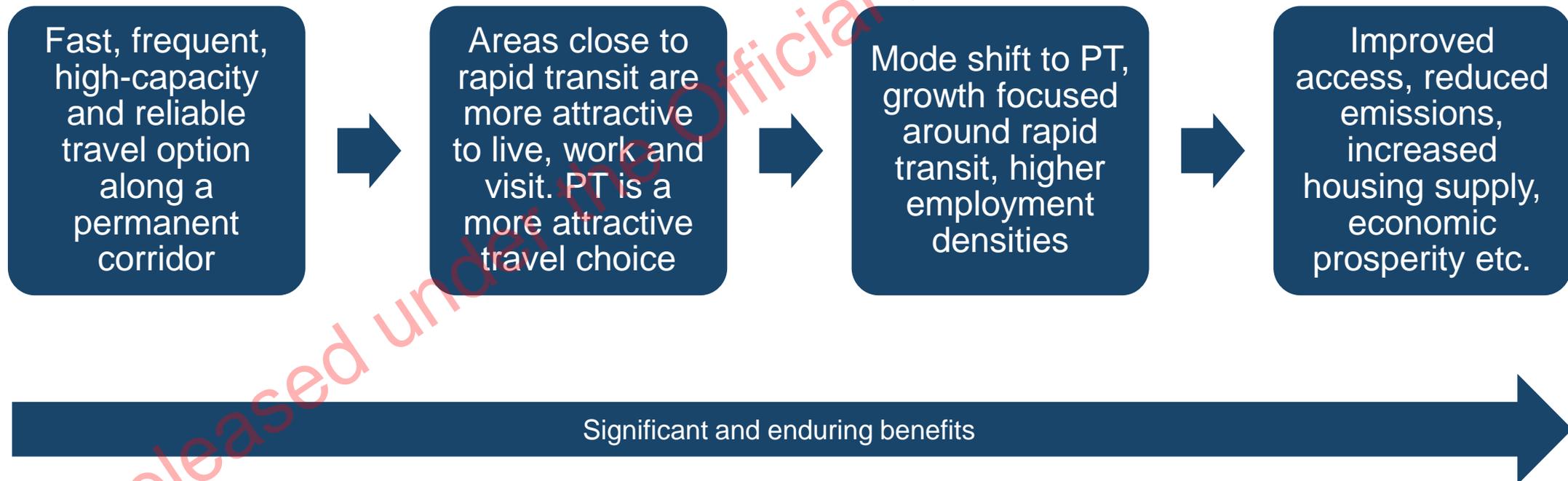
The City Rail Link (CRL) project (currently under construction), which is expected to significantly reduce travel times relative to current public transport and the private car. The additional time savings will materially improve the generalised cost advantage for these routes, incentivising mode shift away from the private car and reducing the level of carbon emissions.

Current and post CRL travel times



Rapid transit can play a very significant role in shaping successful urban areas

Successful rapid transit can deliver substantial and widespread benefits, supporting broad transport and urban form outcomes. Because rapid transit provides a high-capacity permanent corridor, these benefits are enduring over time and do not get eroded as demand increases.



Key challenge: rapid transit does not easily fit within existing policy settings

	Defining rapid transit	Planning rapid transit	Clarifying roles and responsibilities	Funding framework
Challenges				
Ambiguity as to what constitutes rapid transit	✓	✓		
Insufficient network integration		✓	✓	
Roles and responsibilities not defined		✓	✓	
Inconsistent funding arrangements		✓		✓

Defining Rapid Transit

The GPS and the NPS-UD provide a high-level definition for rapid transit. Key elements:

- Quick (but how quick?)
- Frequent (but how frequent?)
- Reliable (but how reliable?)
- High capacity (but how high?)
- Permanent route (what does this mean?)
- Largely separated from other traffic (what's the standard for largely?)

Additional elements to GPS/NPS definition:

- Strategic nature of rapid transit corridors as the 'backbone' of the wider PT network and linking key growth nodes/corridors.
- Providing an overall quality of service that is at least competitive with private car, driving mode shift and urban development/intensification.

Rapid transit criteria

Key criteria to determine whether a corridor aligns with the definition of rapid transit. Building on GPS/NPS definition while also considering the strategic role of the corridors and the overall quality of service.

Corridor	<ul style="list-style-type: none"> Is the service operated in a dedicated strategic corridor and/or with absolute priority in shared corridor Does the service operate in the most important corridors, acting as the 'backbone' of the wider PT network
Speed	<ul style="list-style-type: none"> Does the service offer travel time between key trips generators that is competitive with private vehicles? Is the service substantially faster than most other public transport services?
Frequency	<ul style="list-style-type: none"> Does the services have a "turn up and go" threshold of c.5-minute average wait time (10 min headway) during AM and PM weekday peaks at a minimum Does the service operate at least every 15 minutes at most times of the day? Is there a clear intent/ability to scale up frequency if threshold not met initially?
Reliability	<ul style="list-style-type: none"> Does the service consistently achieve on-time performance of at least 95% measured on both departure and arrival times Is the service able to still operate reliably when other parts of the transport network are congested?
Capacity	<ul style="list-style-type: none"> Does the service have the capacity to capture and sustain a material share of corridor trips and trips that would otherwise be made by private car?
Overall service quality	<ul style="list-style-type: none"> Is the service highly competitive with private cars on overall cost and performance? Will the service drive substantial mode shift from private vehicles to public transport?

Planning rapid transit

Rapid transit investments are particularly complex, have high-costs, but deliver multiple transformational benefits. Rapid transit networks can take decades to plan and deliver, must integrate with each other and the rest of the PT network, and must support (and be supported by) wider urban growth and development plans. A greater focus on network planning is key.

Spatial Planning

Identifies current & future rapid transit corridors and aligns them with key growth areas for major urban areas. Provides a 30-50+ year perspective.



Rapid Transit Network Planning

Further develops corridors identified in spatial plans to outline their likely mode and location, as well as how corridors integrate with each other and the wider PT network. Provides a sequenced programme of interventions over a 10-30 year period to inform investment plans and business case development.



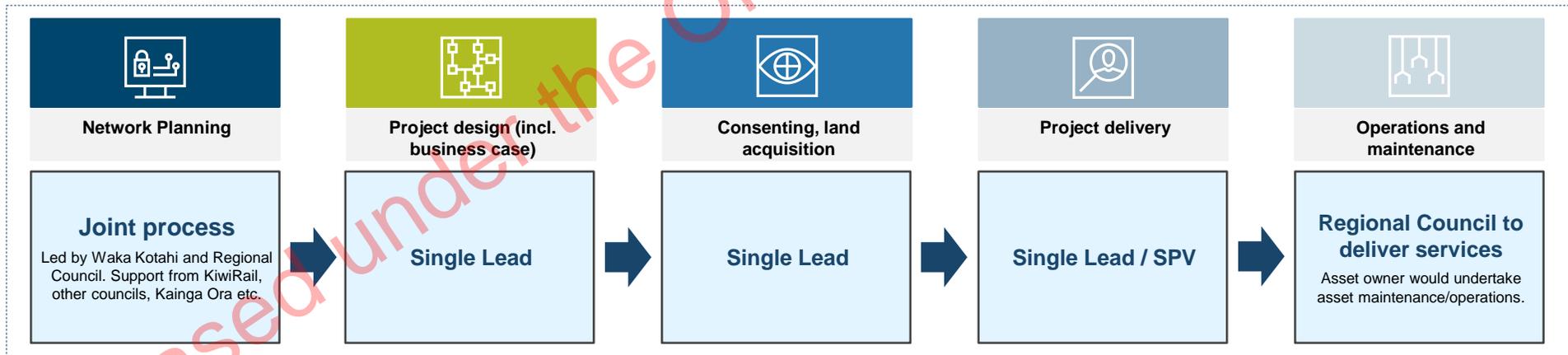
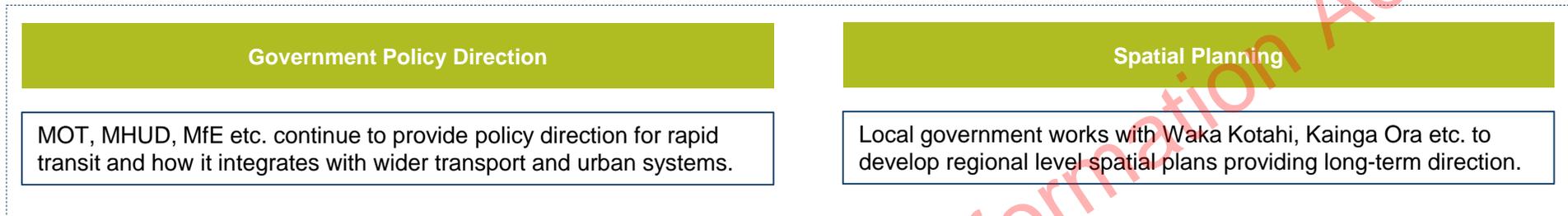
Statutory Plans

Statutory plans (RPTP, RLTP & NLTP) focus on 3-10 year time horizon for implementation and alignment with PT service planning.

Business Cases

Business case confirms project option, value for money and delivery processes.

Roles and responsibilities



Funding framework – key issues

Rapid transit has many unique characteristics that create complexity when developing a funding framework:

Large complex investments that take many years to plan, design and construct

Generate widespread benefits across many different beneficiaries

Inter-generational benefits

Often developed as part of wider urban development programmes

Often need to be built ahead of demand

Funding arrangements of strong public and political interest

Funding framework

A clearer funding framework needs to consider several key matters:

Equitable contributions	<ul style="list-style-type: none"> • Rapid transit creates widespread benefits, which should be reflected in how it is funded • This likely requires a wide range of funding sources, including value capture to reflect rapid transit's impact on increasing land value.
Government funding	<ul style="list-style-type: none"> • The scale of investment, national significance of rapid transit projects and widespread nature of benefits means that a higher share of Government funding (NLTF, Crown etc.) is appropriate for rapid transit. • More similar funding arrangements between rapid transit and state highways helps support mode neutrality between different types of 'national networks'. • Financing is likely to be required to 'smooth' investment levels over time, noting the large scale of many rapid transit investments.
Certainty and control	<ul style="list-style-type: none"> • Projects need to be able to be confidently budgeted well into the future, so that planning work can progress • Simple and consistent methodology that provides certainty to stakeholders and aligns with roles and responsibilities. • Funding from a variety of sources incentivises project buy-in, cost recovery, and whole of life asset management.

Next steps

As per the Minister's letter of expectation, we will partner with the Ministry and KiwiRail to flesh out the rapid transit framework and finalise the details of what specific policy changes are required (and confirm the decision-makers) to address the key gaps identified through our work to date.

Released under the Official Information Act 1982