

# Strategic vision for Auckland rail

## 30-year Investment Programme



# Major essential works are underway

## ❖ Physical work continues for CRL opening

Wiri to Quay Park – Third Main (Westfield-Wiri)

Papakura to Pukekohe Electrification

Drury and Paerātā Stations

Ngākōroa Station

Western Substation Power Supply

Integrated Rail Control Centre

Rail Network Rebuild

CRL Build

## ❖ Operational readiness planning continues for CRL opening

One Client model – AT/AOR/KR/CRL

Four tier model for operational readiness

Testing and commissioning sequencing

## ❖ Also underway...



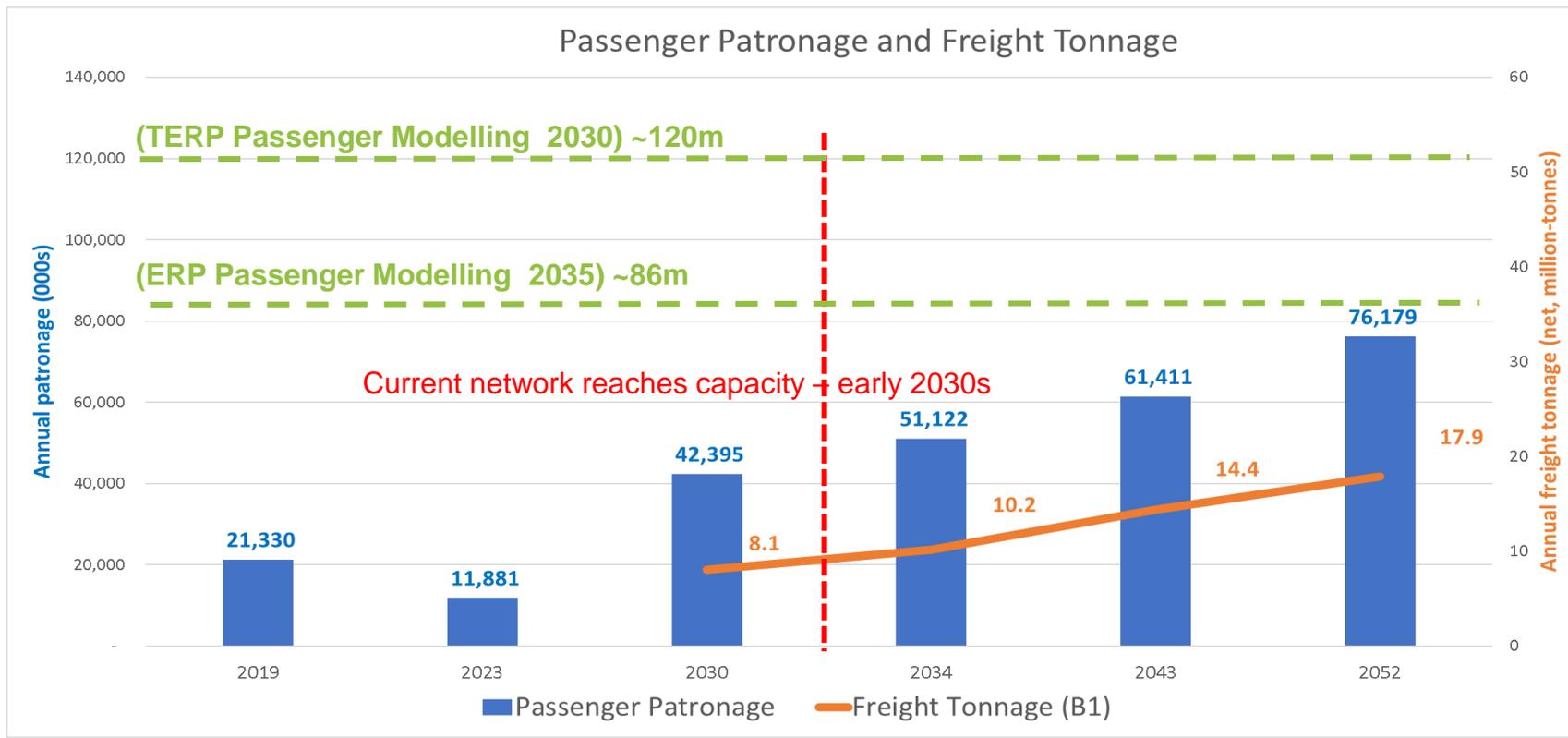
23 new train units and stabling



Removal of a number of level crossings

# The network in Auckland will be full soon after CRL opening

Forecast organic growth beyond CRL opening will quickly fill existing wider network capacity – new capacity will be needed to enable growth to continue



# We need to look forward and provide for next stages of growth

## Mixed mode is an inefficient use of capacity

### Mixed mode networks are 20% less efficient than dedicated mode

- Mixed mode networks have capacity constraints that progressively need to be removed, or accept capacity constraints or timetable fragility

## Segregation is essential for reliability – and making best use of what we've got

### The network will still be mixed-mode and all users want and need to grow

- Freight and passenger
- All stop and express
- Commuter and regional

The rail network and the road / active mode networks are not segregated

## The network needs to work for all users – and beyond Auckland

### The rail network and its criticality is not limited to Auckland

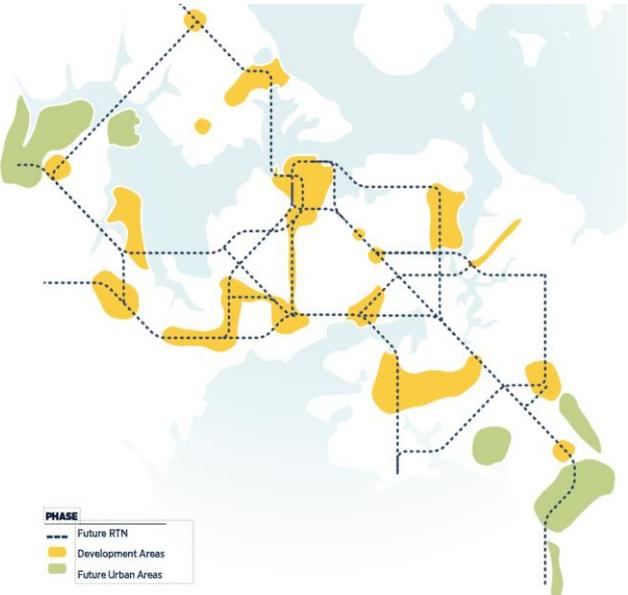
- The Auckland rail network is part of the National rail network – KiwiRail has to think beyond the Auckland region boundaries

**To be successful and to justify investment at scale, the rail network needs to fulfil multiple roles**

**Benefits to, and arising from all users are needed to justify the investment**

# The Auckland rail network

## And its future local and rapid transit context



**Intensification in Land Use**



**Long Term Rapid Transit Network**

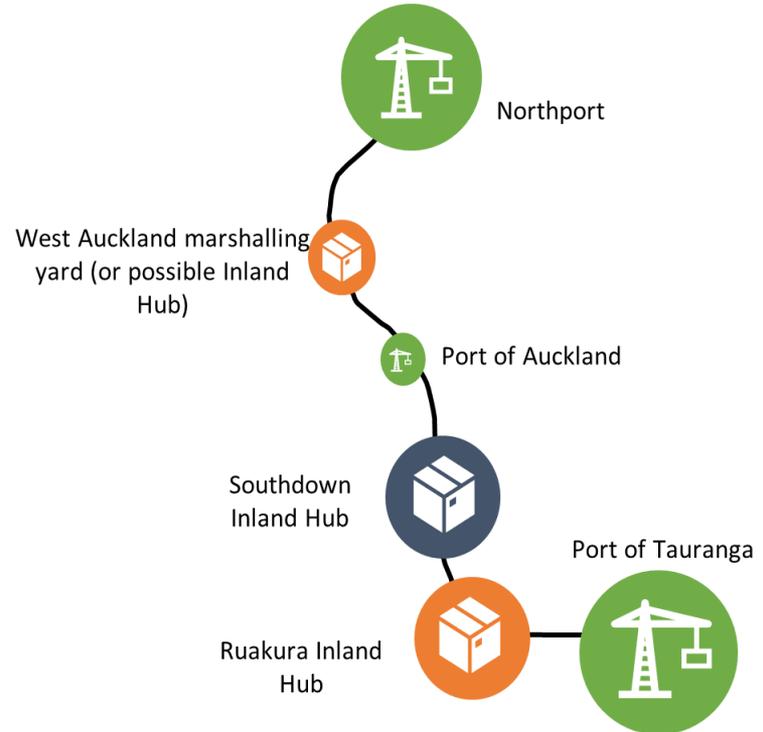
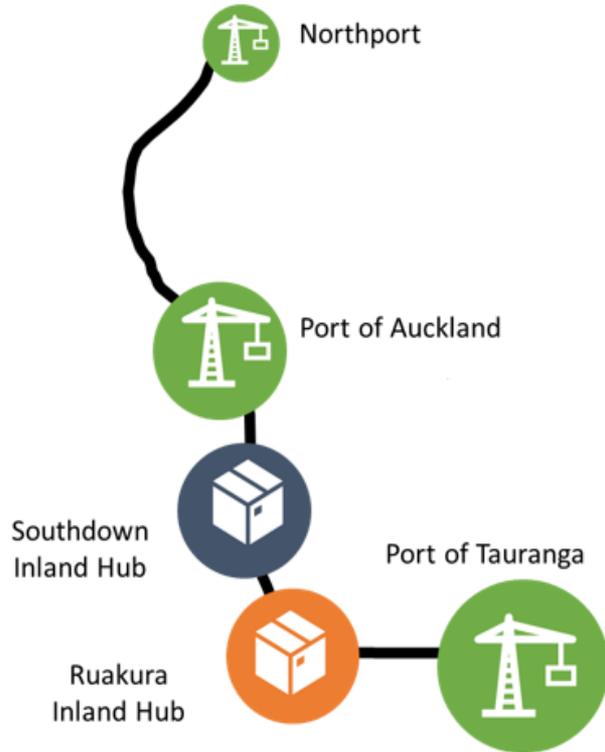


**The Shared Rail Network**

# The Auckland rail network

## And possible future freight supply chain model regional strategic context

Freight flows between local and regional ports are driven by ports competition and policy – a three-ports future has different demand outcomes than a two-ports future, and the network needs to be resilient to this

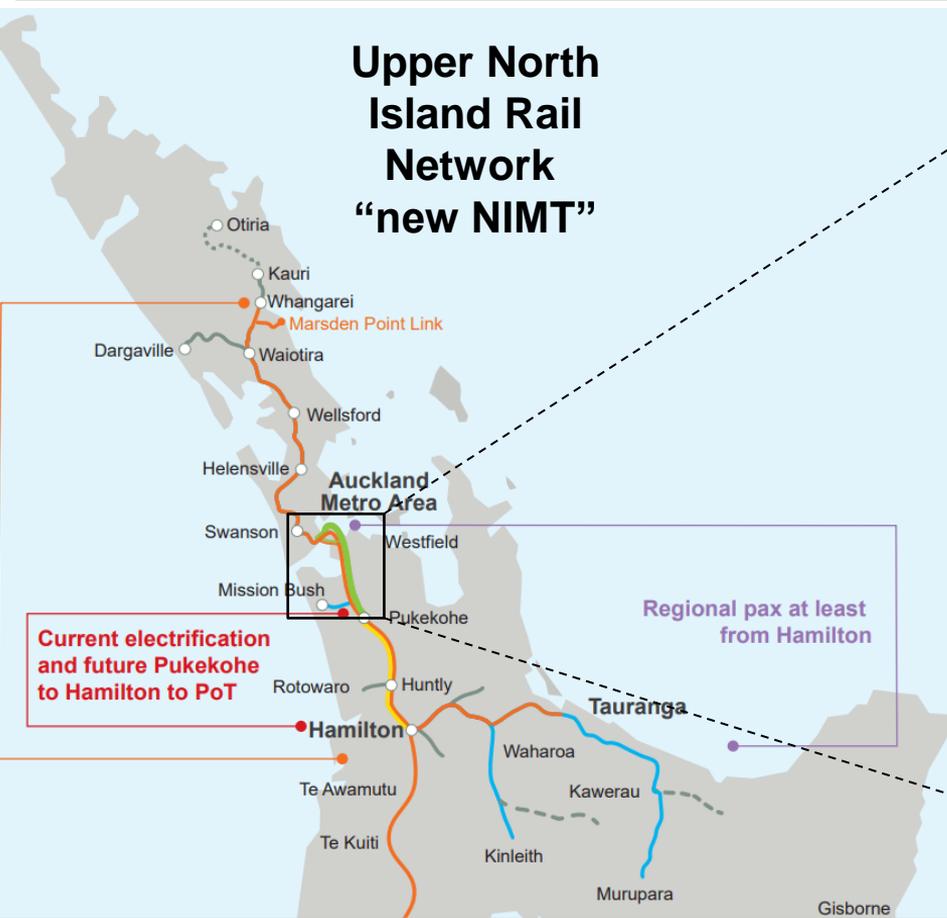


# The Auckland rail network

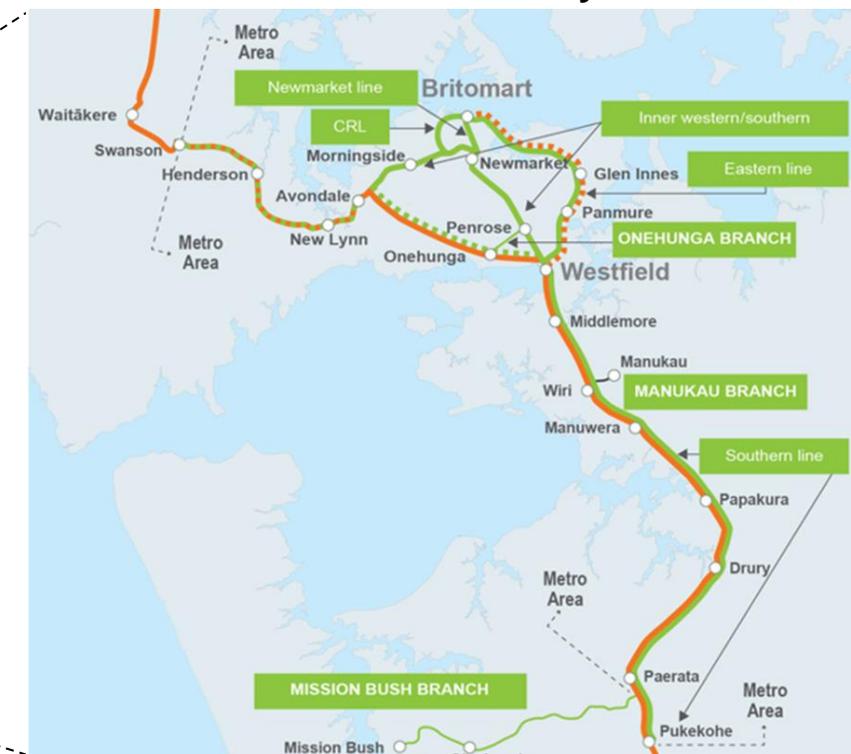
## Future local, regional & national strategic context – maximising segregation

### Upper North Island Rail Network “new NIMT”

NIMT running from Whangarei/Marsden Point



### Metro network created by new NIMT



- North Island Main Trunk (NIMT)
- Exclusive metro use
- Dotted lines = shared use

# Delivering the vision

## 30-year rail investment programme – a holistic assessment of the whole rail system

### Maintenance & renewals



Step change in maintenance & renewals levels and delivery methods to improve reliability and reduce disruption from track works

### Level crossing removal



Closure or grade separation of all level crossings

### Signalling & Power



Upgrade signalling for capacity

Upgrade power supplies for greater passenger frequency and electrified freight

### Fleet, depots & stabling



New and replacement trains, depots & stabling to meet future demand

### New Track



Four tracks: Westfield Junction to Pukekohe

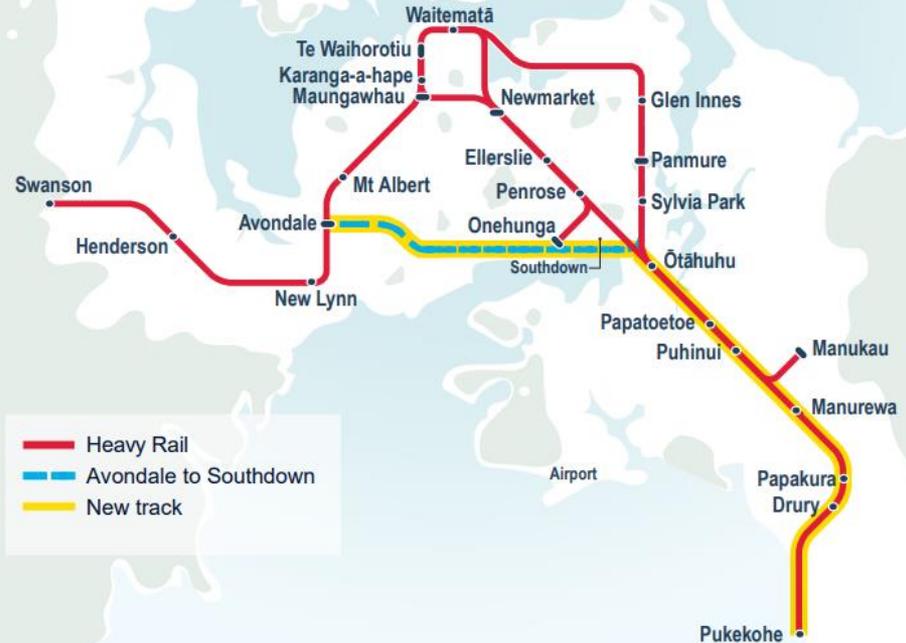
Shared Crosstown corridor enabling port options and freeing the inner isthmus for higher frequency passenger services

### Station upgrades

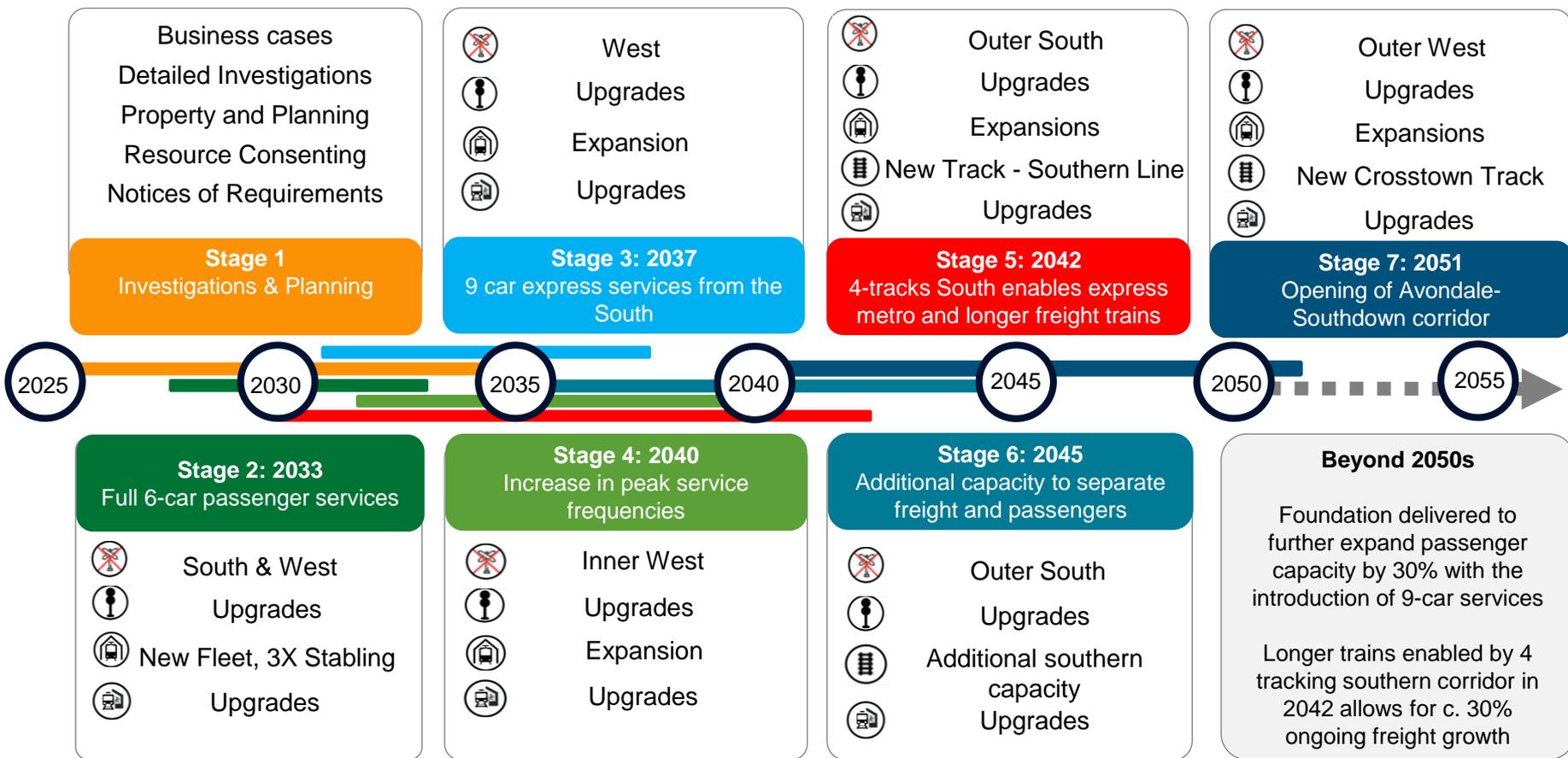


Station upgrades to improve access and amenity and to accommodate forecast growth

## Long-Term Network Blueprint

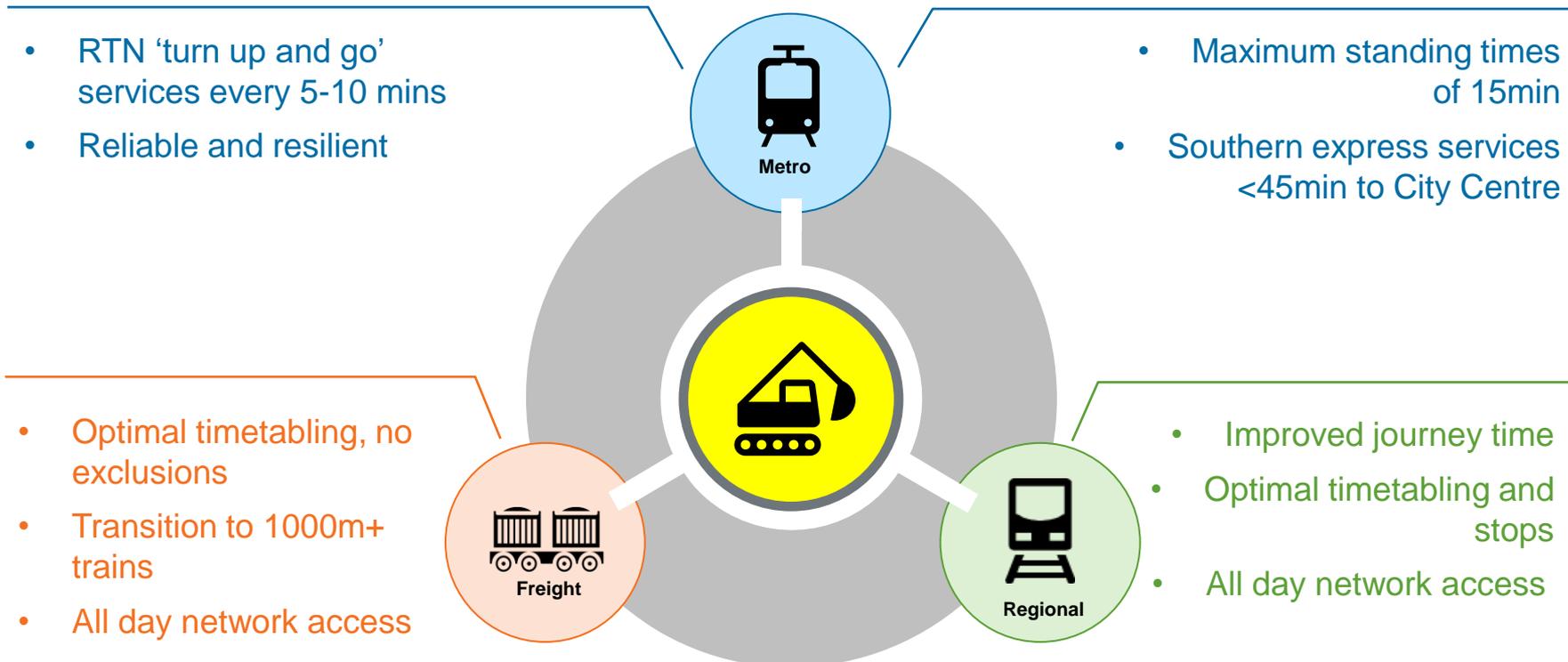


# Indicative staged delivery programme



# Comprehensive customer benefits – built on network reliability

A proactive maintenance & renewals regime will underpin a resilient network – incorporating sustainable utilisation and maximising reliable capacity for all users



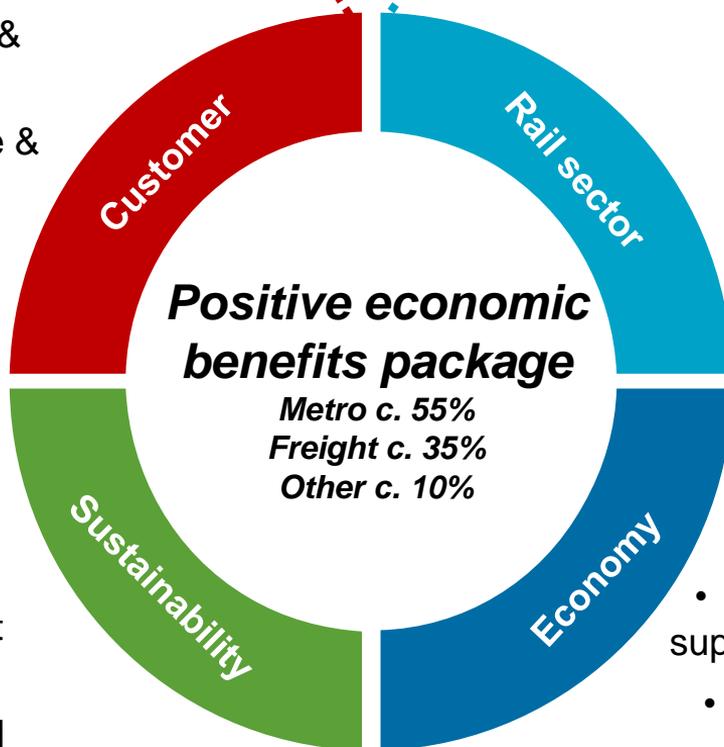
# The programme has broad benefits

## Customer benefits

- Triple duty - for metro, regional & freight customers at once
- Step-change in levels of service & frequency
- More reliable, less disruption
- Well connected & integrated to local and regional networks

## Sustainable transport

- Key to delivering regional and national emission-reduction targets
- Reducing congestion to support ongoing growth
- Improve safety and reduce road maintenance and renewals costs



## Rail sector

- Sustainable pipeline of work
  - Certainty for firms to invest
- New industries and opportunities
  - Building a skilled workforce
  - Employment

## Economic development

- Access to opportunities
- Local and Regional connections
- Improved national and international supply chain efficiency and productivity
- Decongesting Auckland's transport network

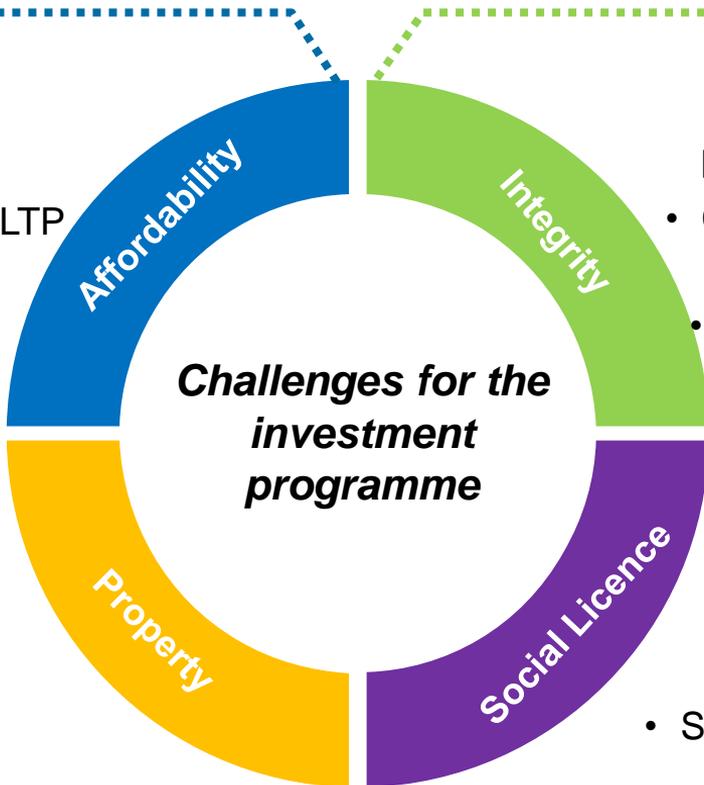
# There will be also be challenges...

## Affordability

- Not affordable under current mechanisms
- Programme exceeds current NLTP
- Alternative funding required to provide certainty
- Competing with mega projects

## Land Acquisition

- Urgency to protect KiwiRail's corridor to support desired mode shift
- Long term funding certainty for land acquisitions



## Programme Integrity

- Benefits arise from the whole package – not its component parts
- Cherry-picking may undermine the benefits
- System view must be maintained
- OPEX funding to match CAPEX

## Social Licence

- Community engagement and support
  - Integrated planning
- Support at a local and national level

# Strategic rail programme - key takeaways



Appropriate and ongoing investment in **maintenance and renewals** is the highest priority and is a necessity regardless of other investment.

We also need to **segregate the rail network from roads** – removing level crossings




After CRL opens, the network will quickly be essentially full and **new capacity will be needed** to allow for growth.

Most of the investment programme is required for metro growth, but **metro alone cannot justify the scale of investment required**




The long **lead time for delivery creates an urgency** to get on and plan now.

Benefits to **ALL users** are necessary to **support the scale of investment required.**




Mixed use networks are complicated to operate with intensity – and **overall capacity is 20% lower for mixed use** compared to dedicated use

The **benefits package arises from the programme** as a whole – cherry picking will not produce the same benefits




Capacity and reliability require that we **segregate traffic types** as far as possible (especially all-stop and non-stop services)

There is urgency to move to **protect the land requirements** – it will never be cheaper than today





Thank you.

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