

25 Year Outlook on Future Road Freight Transport Trends

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**Presentation to the IRTENZ
Conference**

24 October 2017



Introducing the New Zealand Transport Outlook



It will provide:

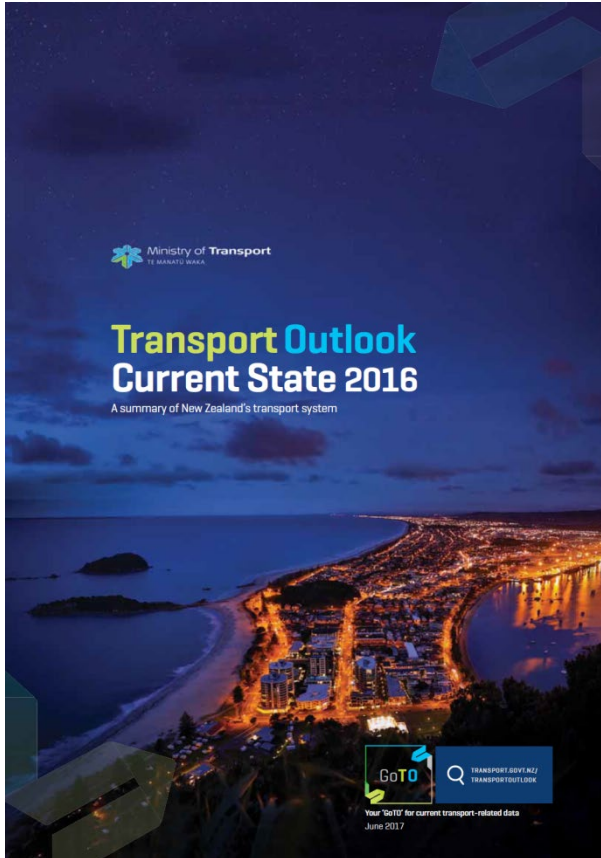
- ▶ a high-level view of the current state of the transport system
- ▶ commentary on emerging trends and influences (such as technology, demographics)
- ▶ 25-year projections of future transport demand, vehicle-kilometres travelled, fuel use and emissions
 - ▶ provide a consistent and accessible set of information, assumptions, and scenarios
 - ▶ develop and continually improve Ministry and sector modelling capability

How Transport Outlook's Models Fill a Need



- ▶ Almost all policy analysis and decision-making requires projecting the future, such as:
 - ▶ *travel demand and traffic volumes*
 - ▶ *fuel use/emissions*
 - ▶ *public health and safety*
- ▶ Models can bring consistency and rigour to these projections
- ▶ However, in order to provide maximum value, the models should be consistent and continually improved
- ▶ *Outlook's* modelling effort is therefore very much a means to a broader end: developing an ongoing in-house modelling capability at MoT

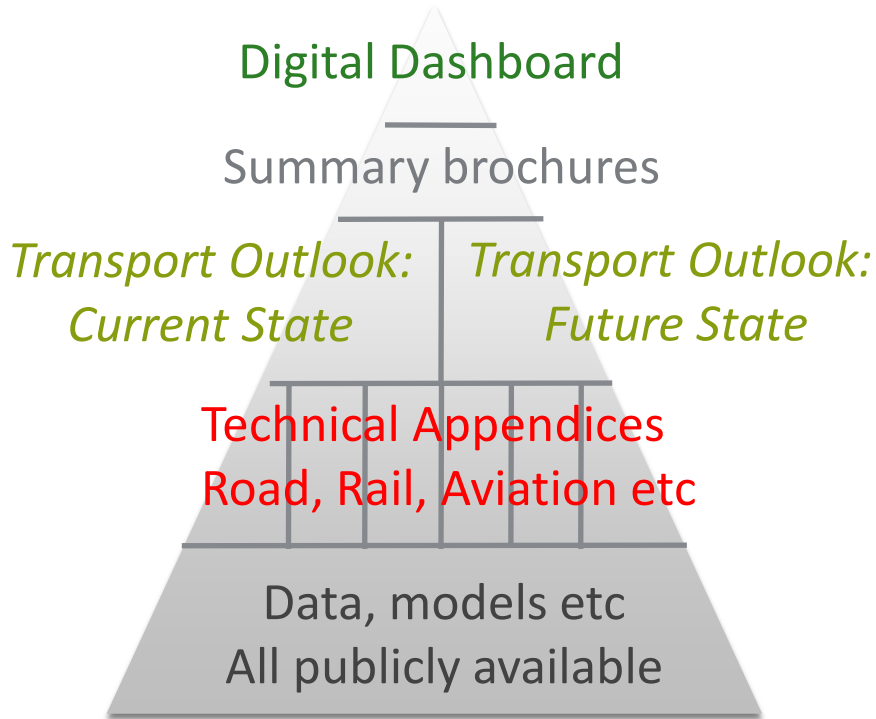
Transport Outlook Publications



- ▶ *Current State* document Released 29 June 2017
- ▶ Available at:
www.transport.govt.nz/transportoutlook
- ▶ *Future State* document to be released later this year



Products



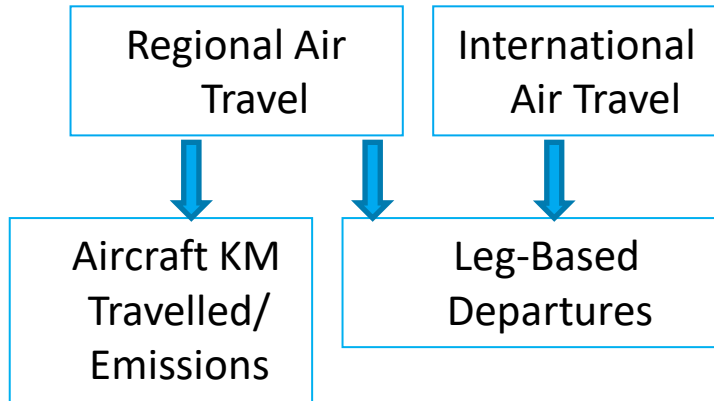
Audience



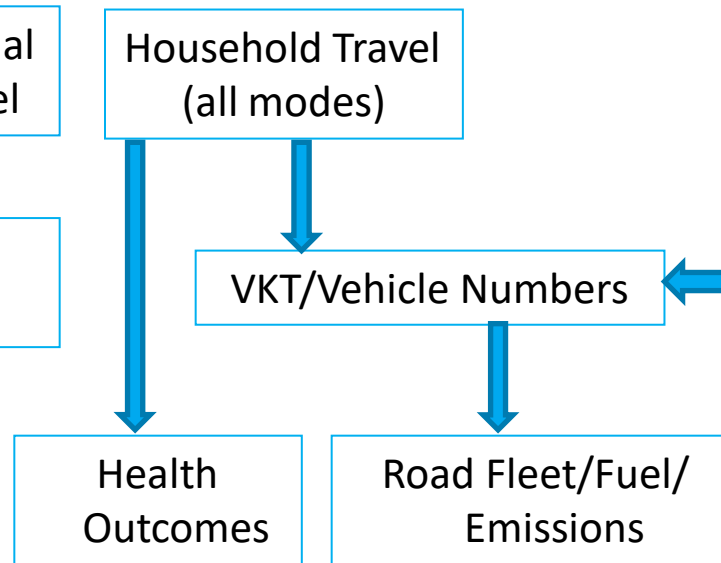
Outlook's Set of Interlinked, System-Level Models



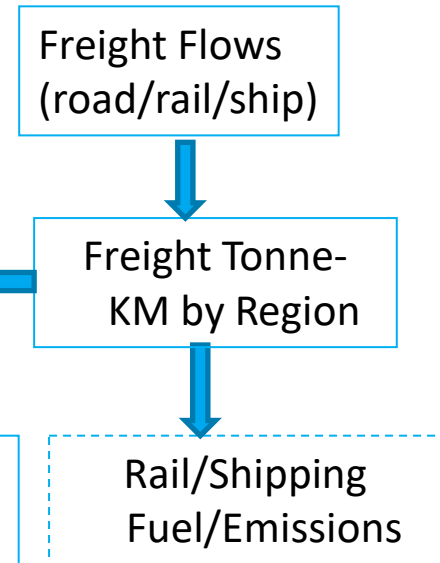
Aviation Sector



Local Travel Sector



Freight Sector

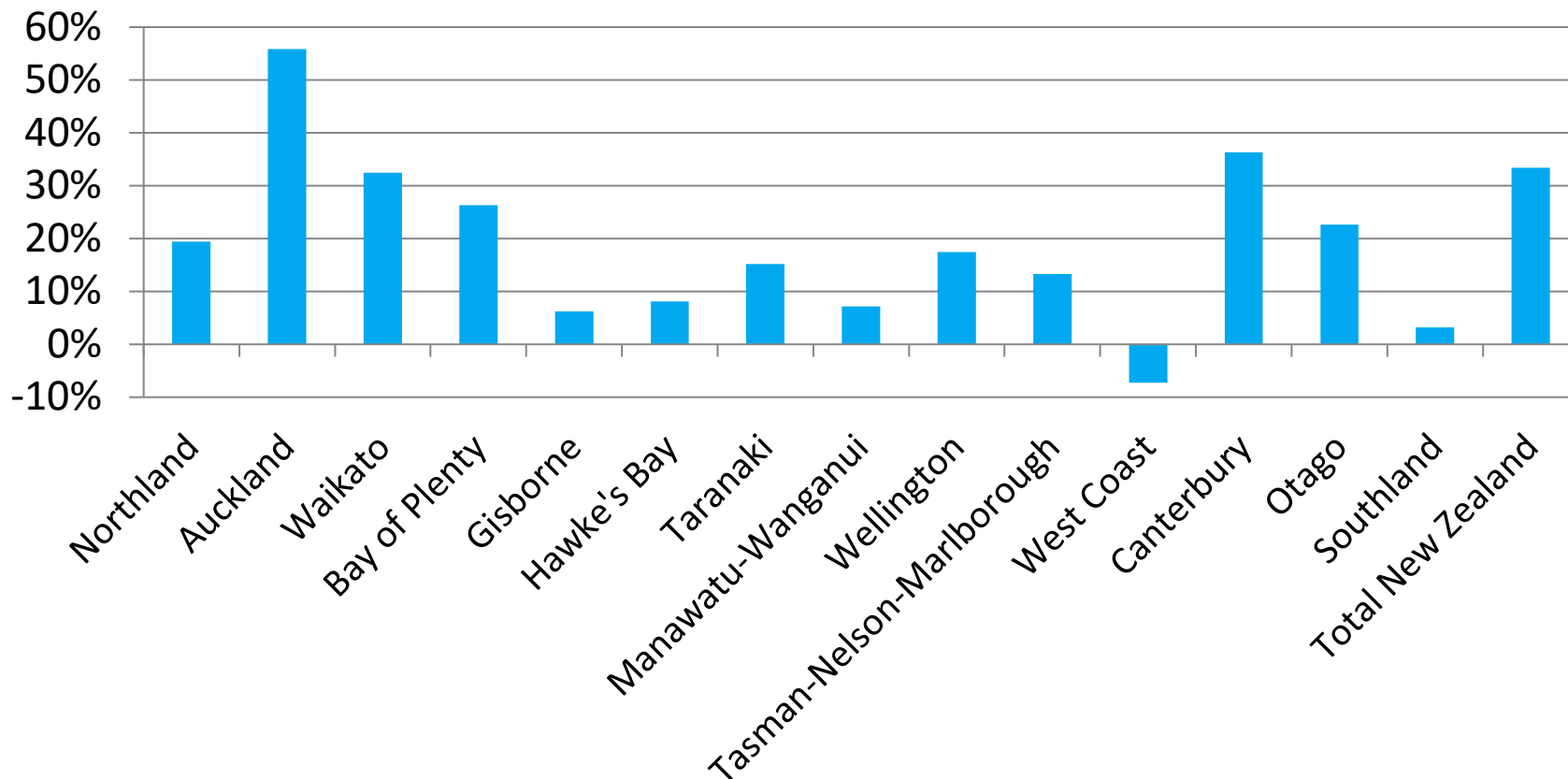


The Base Scenario



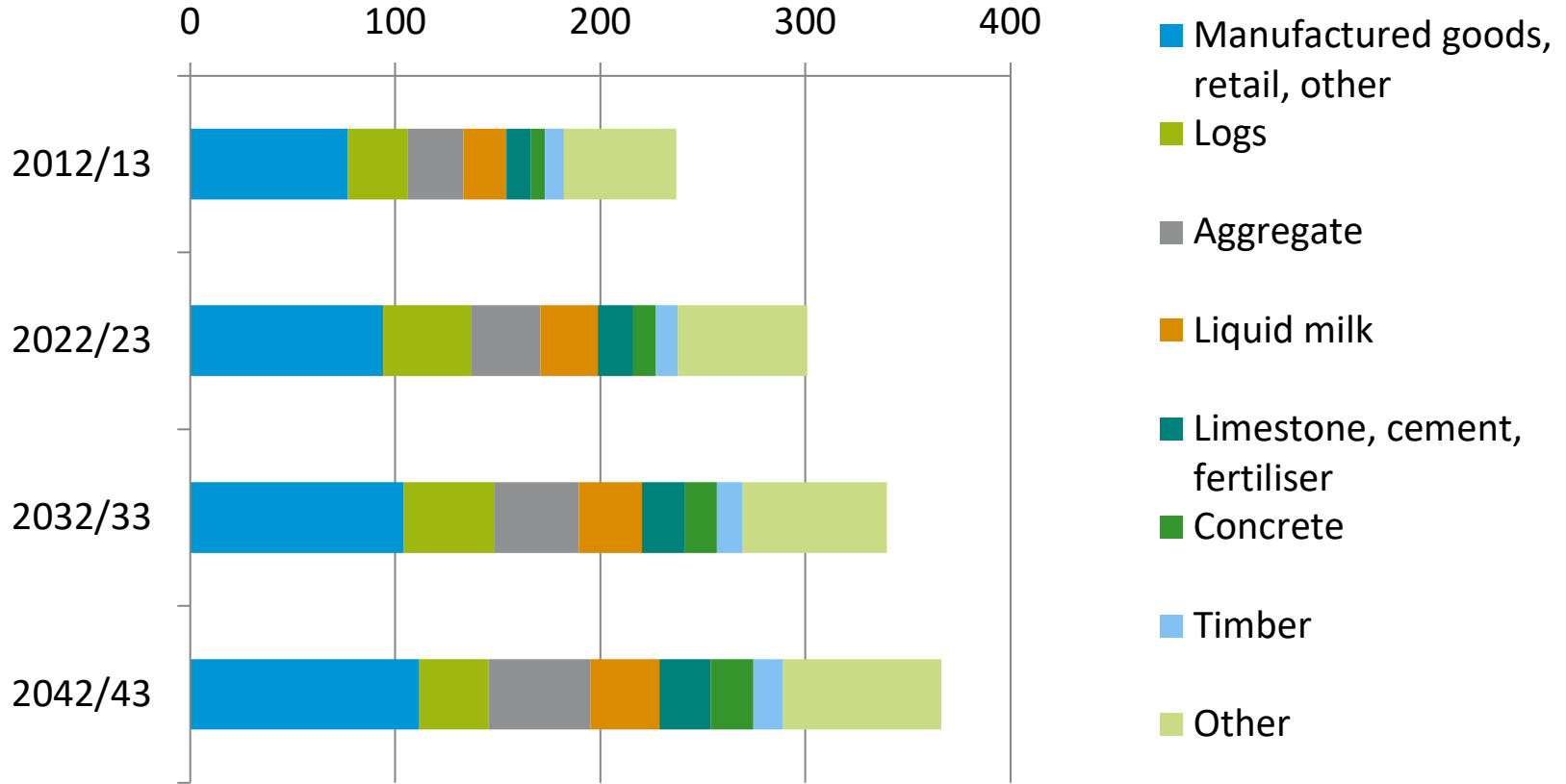
- ▶ The Base Scenario portrays where demography and economic growth alone is likely to take us, assuming no changes in either technology or consumer behaviour
- ▶ In this sense it is a very ‘business as usual’ scenario

Base Scenario – Percent Change in Population by Region 2012/13->2042/43

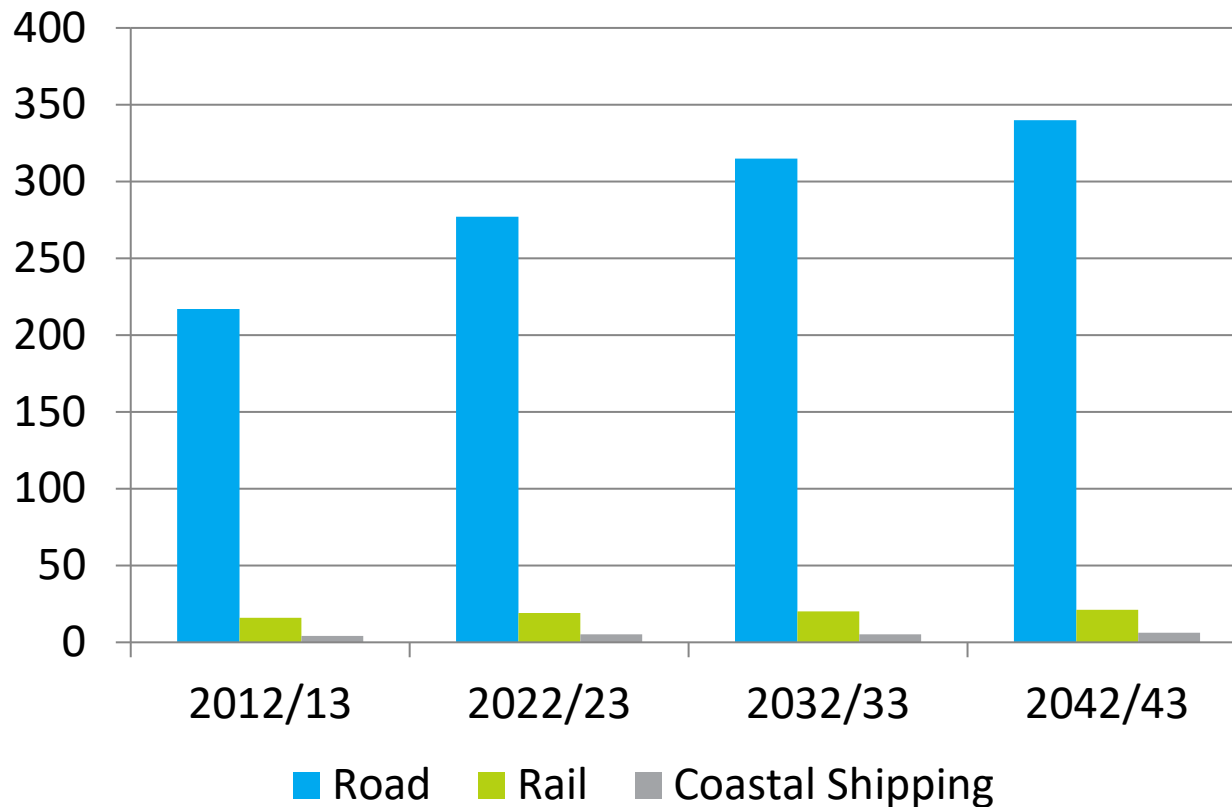


* Based on Statistics New Zealand Medium Projection 2013(base) update

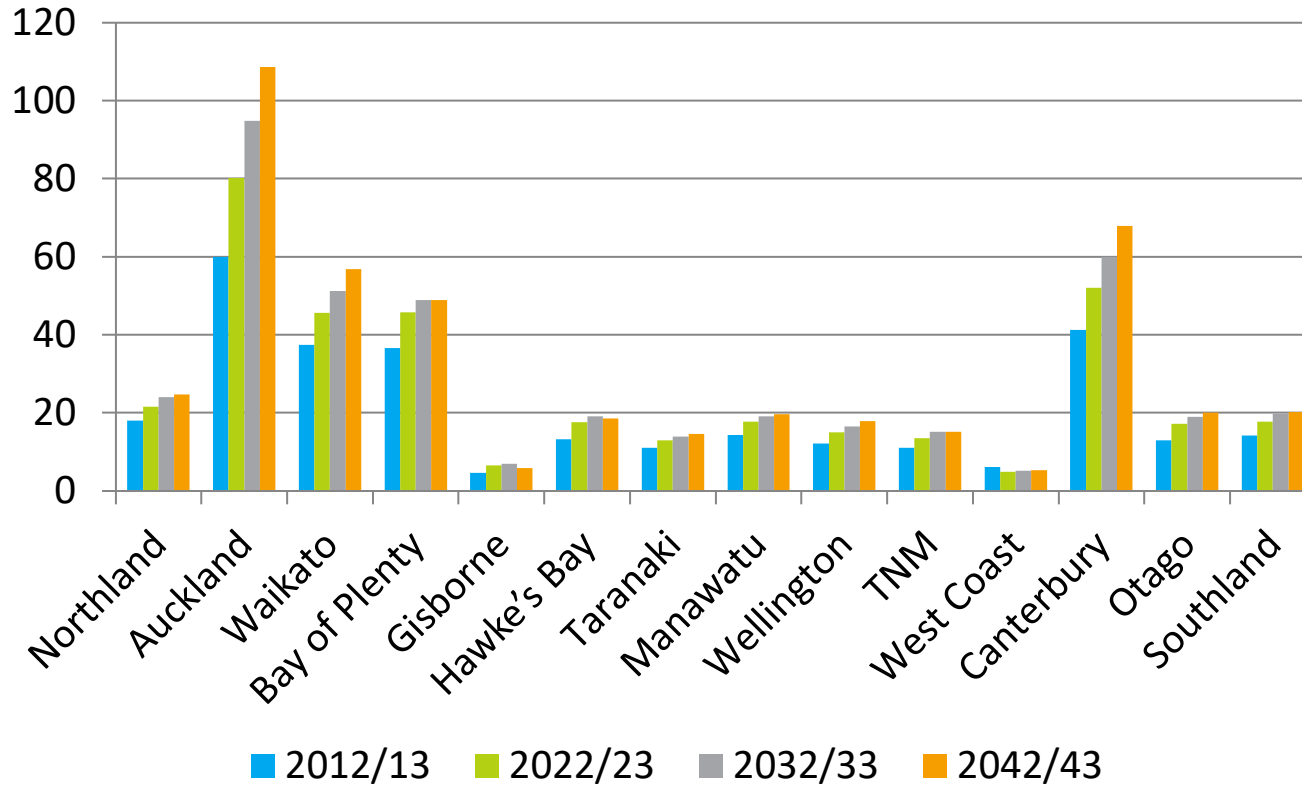
Projected Freight Volumes in New Zealand (Million Tonnes)



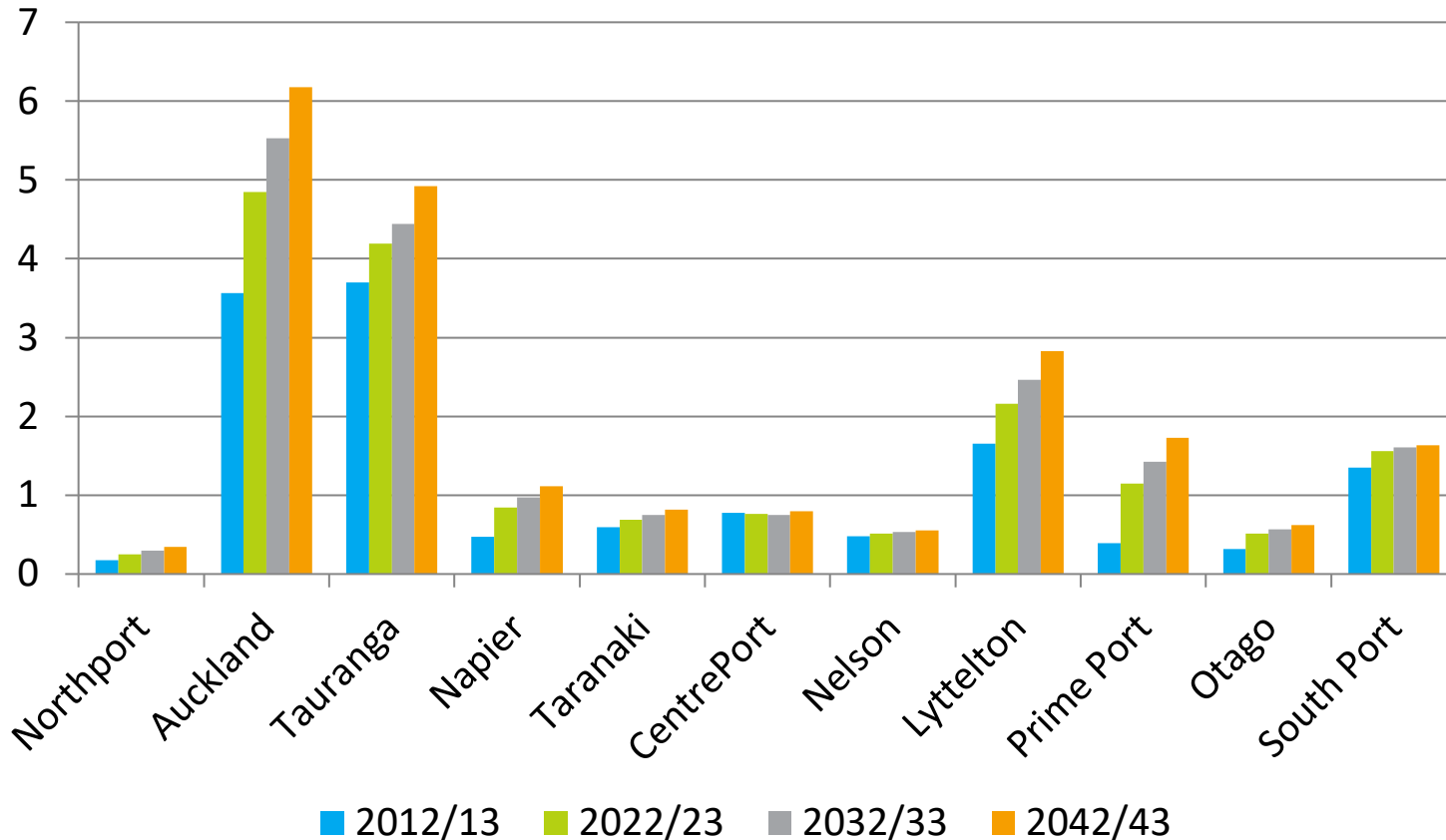
Projected Base Case Freight Volumes by Mode (Million Tonnes)



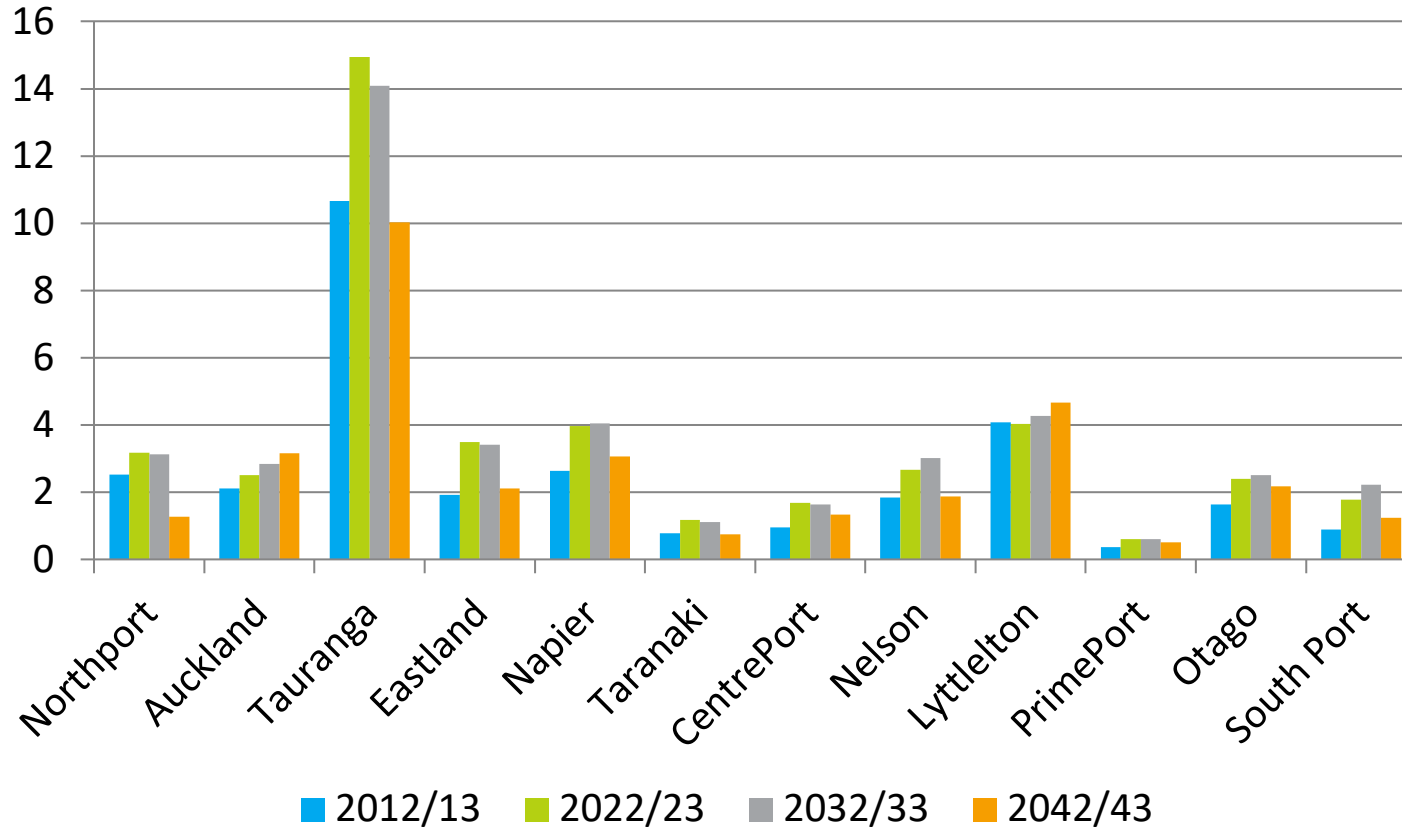
Projected Regional Freight Volumes (Million Tonnes)



Projected Imports by Port (Million Tonnes)



Projected Exports by Port (Million Tonnes)



Five Scenarios: Base Case + Four Alternatives

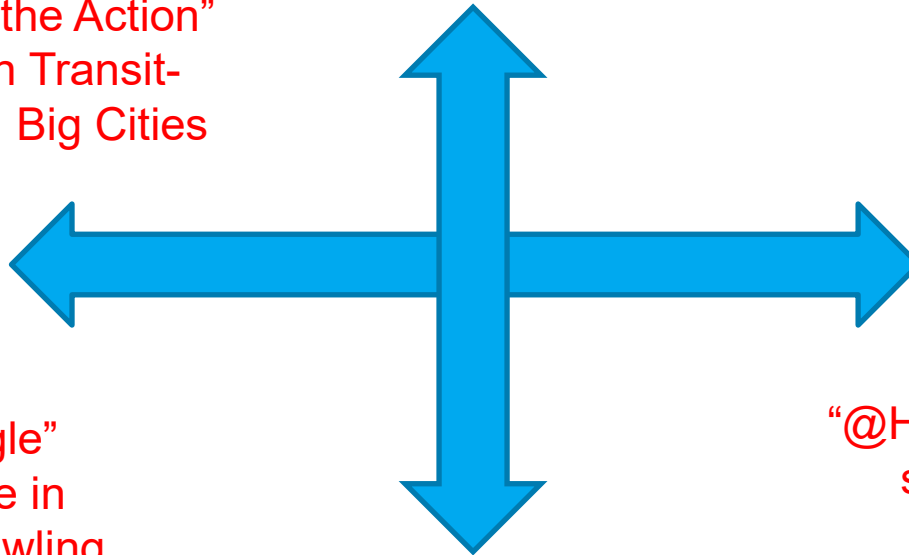


Moderate Technological Progress/
Economic Growth/Population Growth

“Staying Close to the Action”
scenario: Live in Transit-
Friendly/Dense Big Cities

“Metro Connected”
scenario: Live in Big and
Smaller Cities

Face-to-Face
Interaction
Highly Valued



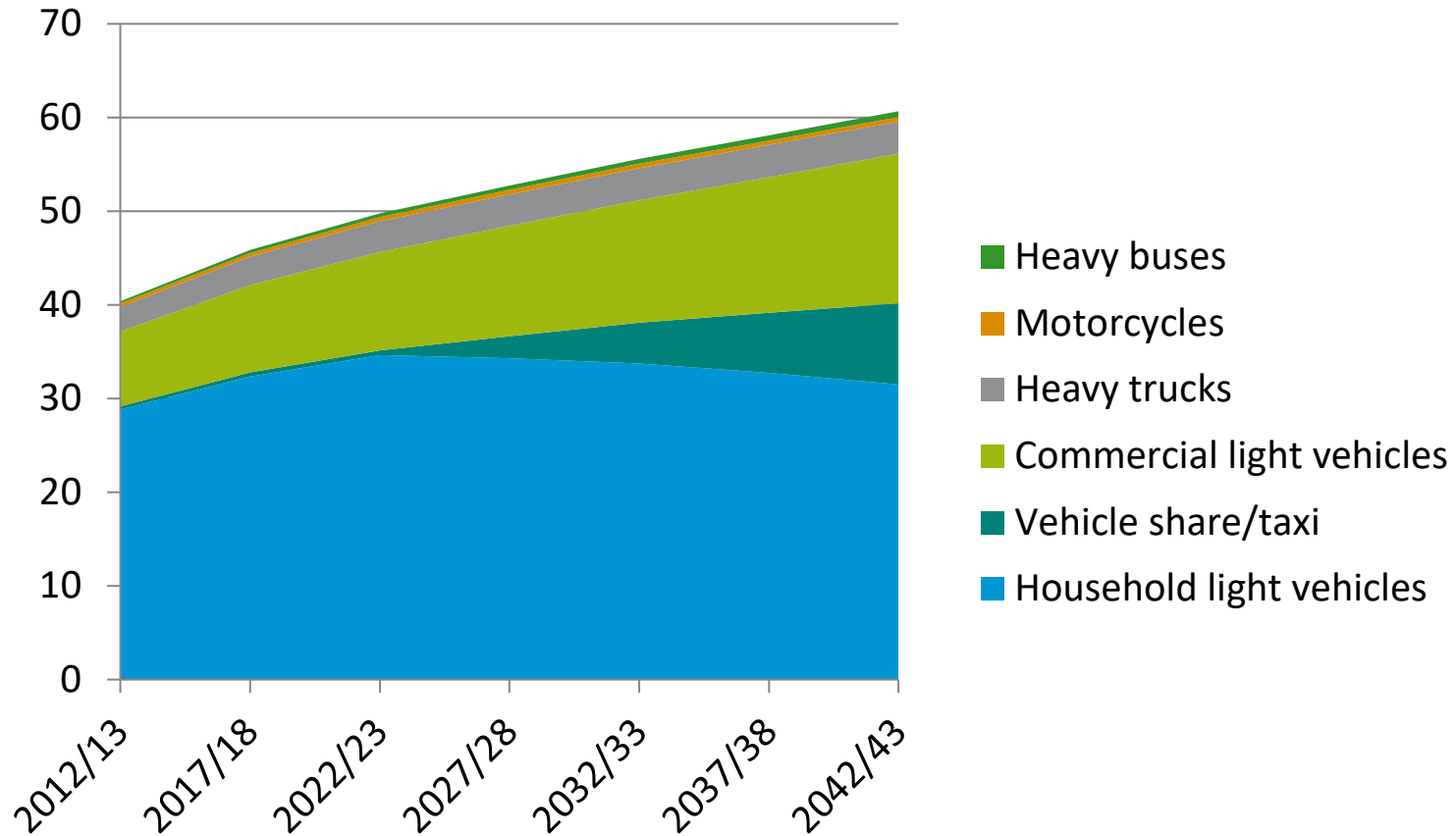
Digital
Communications
Can Substitute for
Transport

“Golden Triangle”
scenario: Live in
Suburban/Sprawling
Big Cities

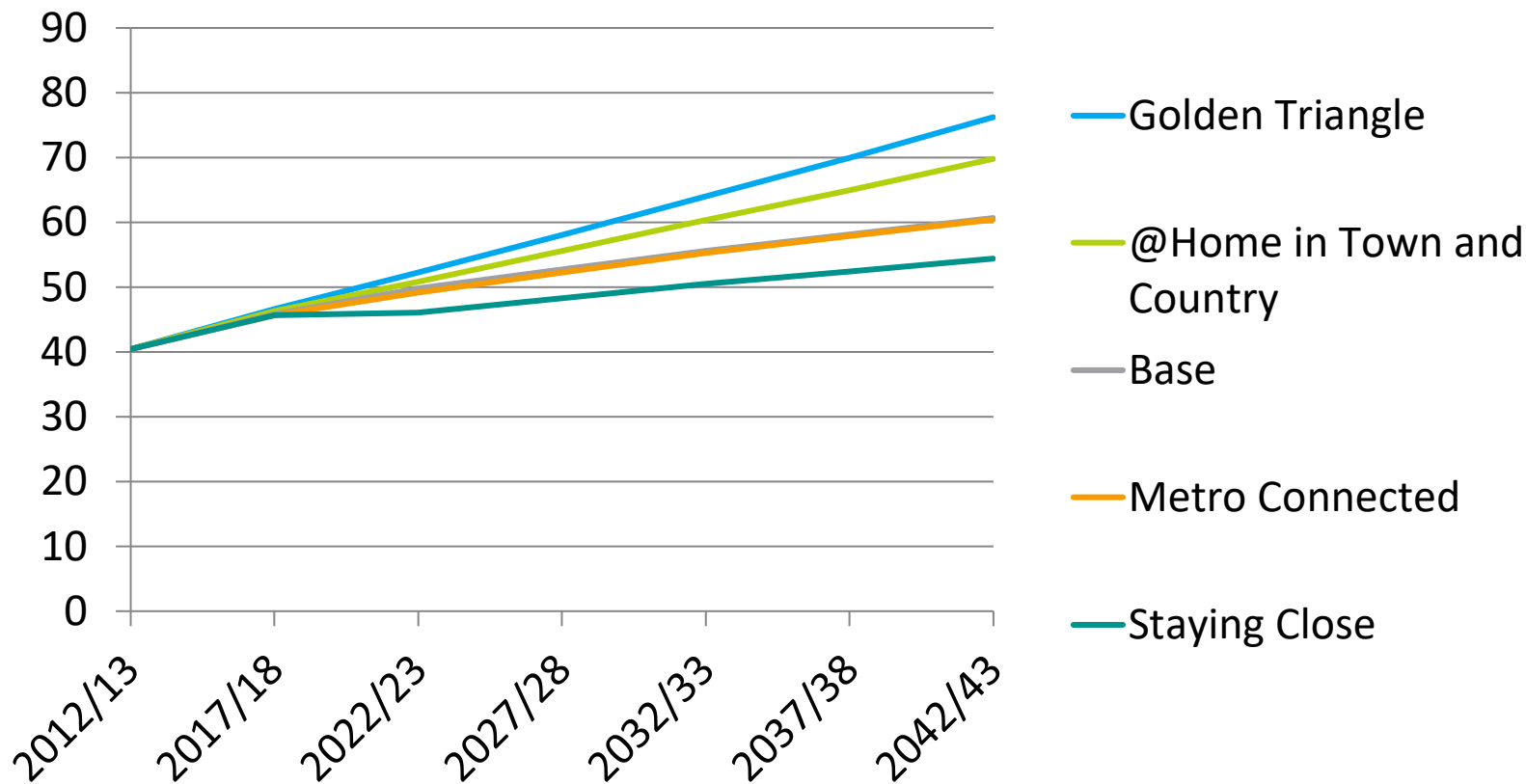
“@Home in Town and Country”
scenario: Live and Work
Anywhere You Please

Rapid Technological Progress/Economic
Growth/Population Growth

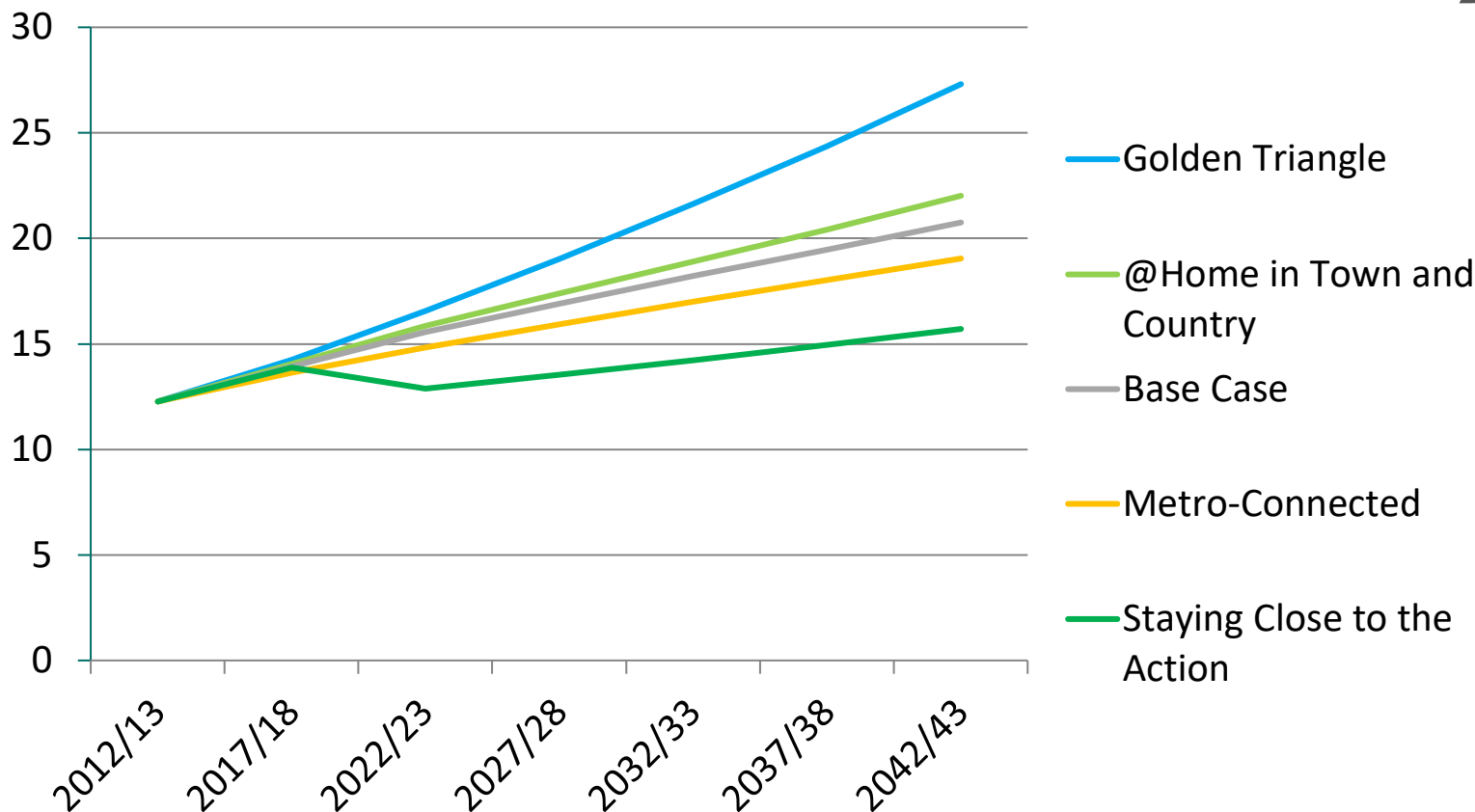
Vehicle Kilometres Travelled by Vehicle Type (Billion)



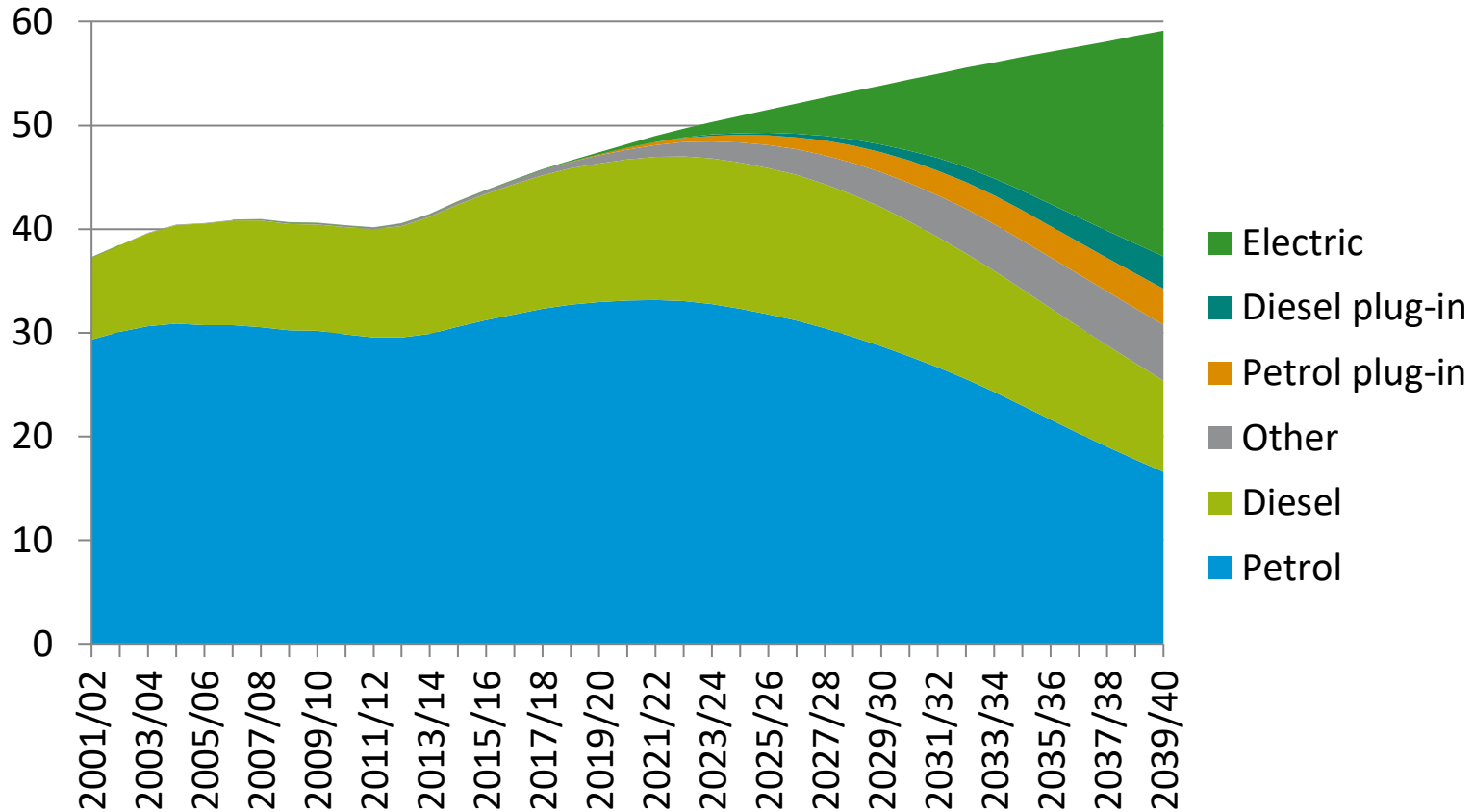
Comparison of New Zealand Vehicle Kilometres Travelled Across Scenarios (Billion)



Comparison of Auckland Region Vehicle Kilometres Travelled Across Scenarios (Billion)



Vehicle Kilometres Travelled by Fuel Type (Billion)



- Electric
- Diesel plug-in
- Petrol plug-in
- Other
- Diesel
- Petrol

Where to From Here?



- ▶ The project does not end with publication of *Future State* document:
 - ▶ *“Start of a conversation”– begin stakeholder consultation process*
 - ▶ *Closer cooperation with NZTA and their Long-Term Strategic Vision*
 - ▶ *Continually improve the models*
 - ▶ *Produce updated and improved editions of the Outlook publications*