

Congestion, efficiency, emissions & accessibility

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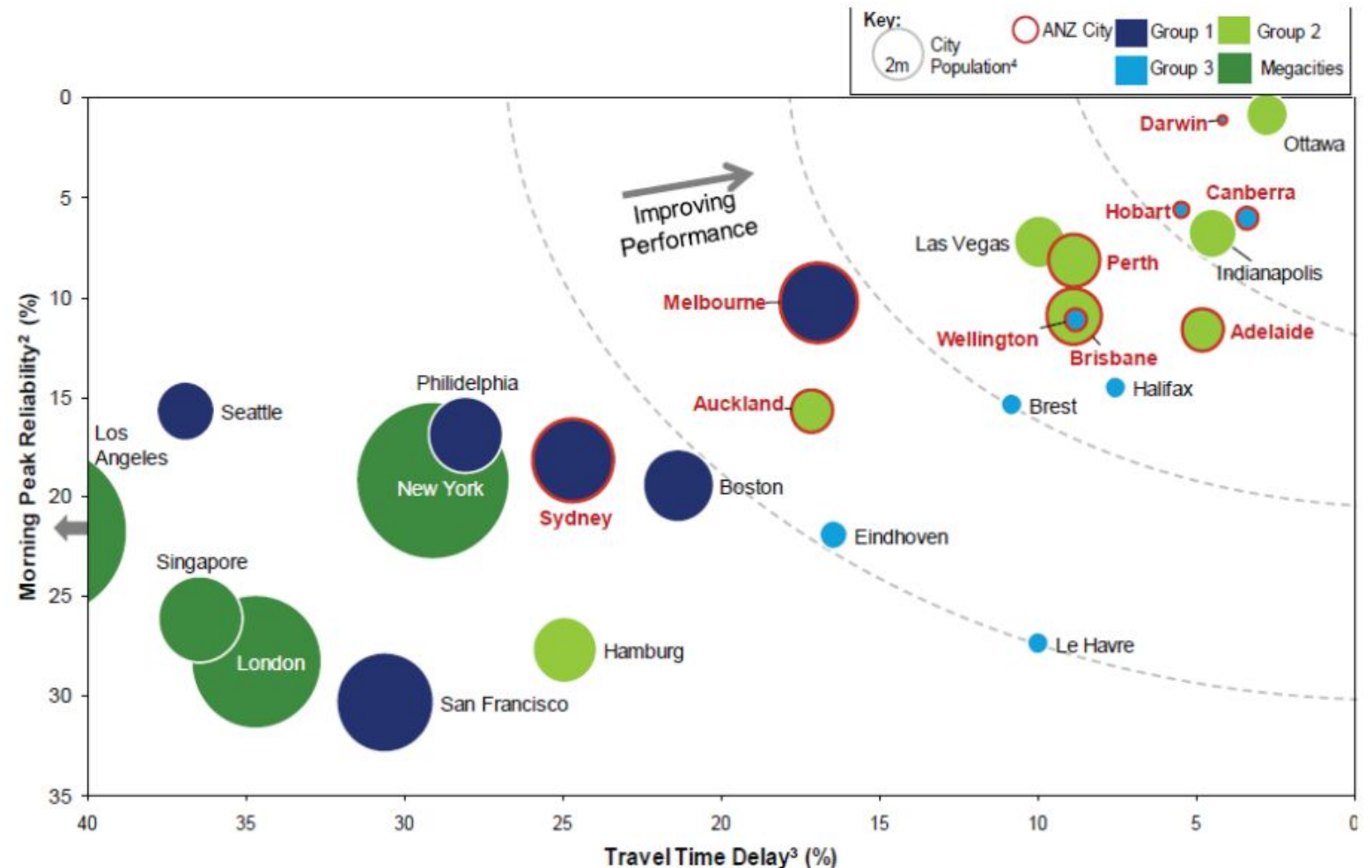


Congestion and traffic

Congestion occurs when the number of vehicles travelling exceeds what the network can manage

Auckland is one of the most congested cities in the world.

The population is projected to increase to at least 2.2 million by 2045 with visitor numbers also expected to grow.

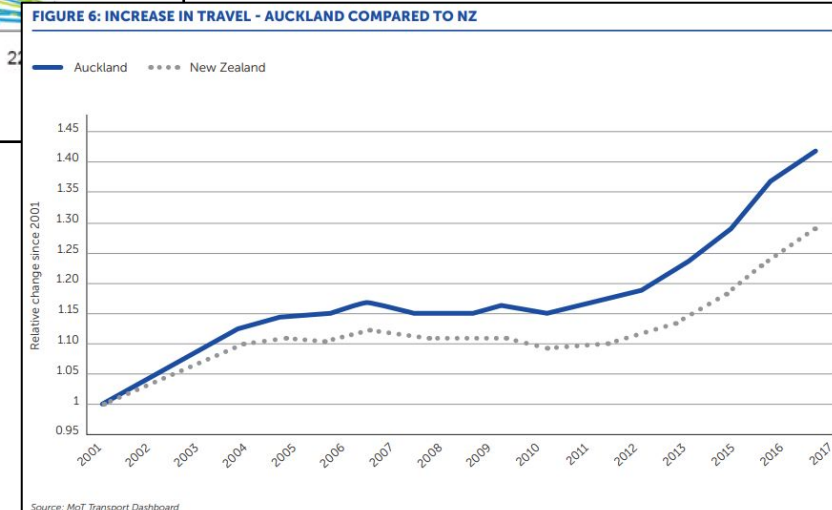
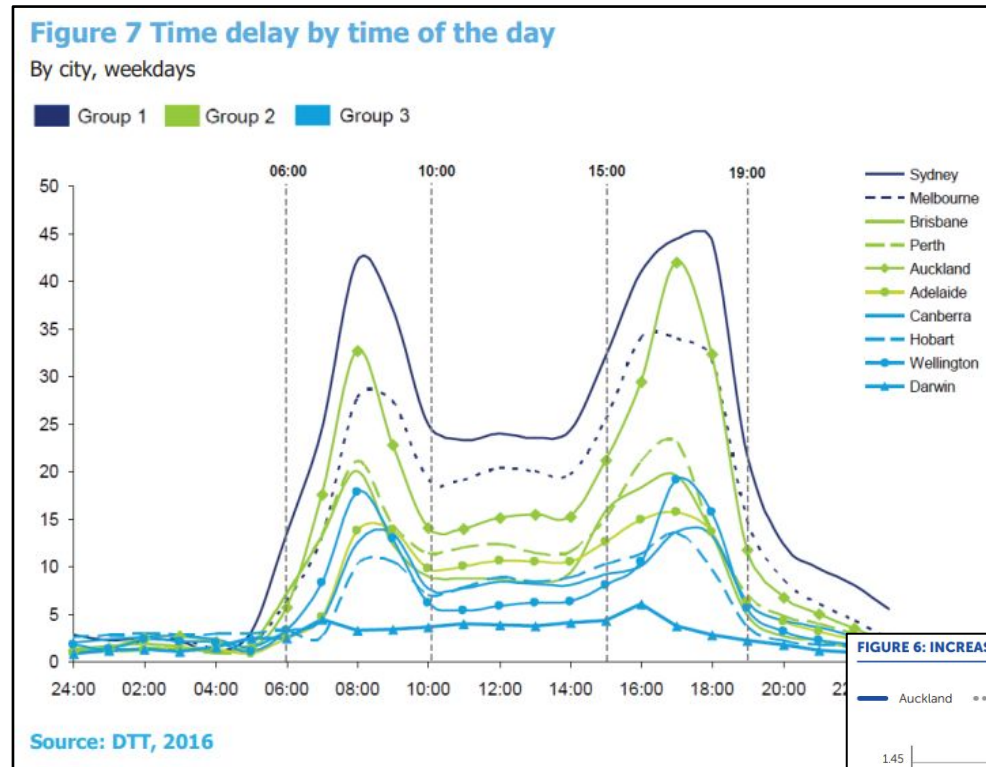


Source: Deloitte Touche Tohmatsu, 2016

Congestion and traffic

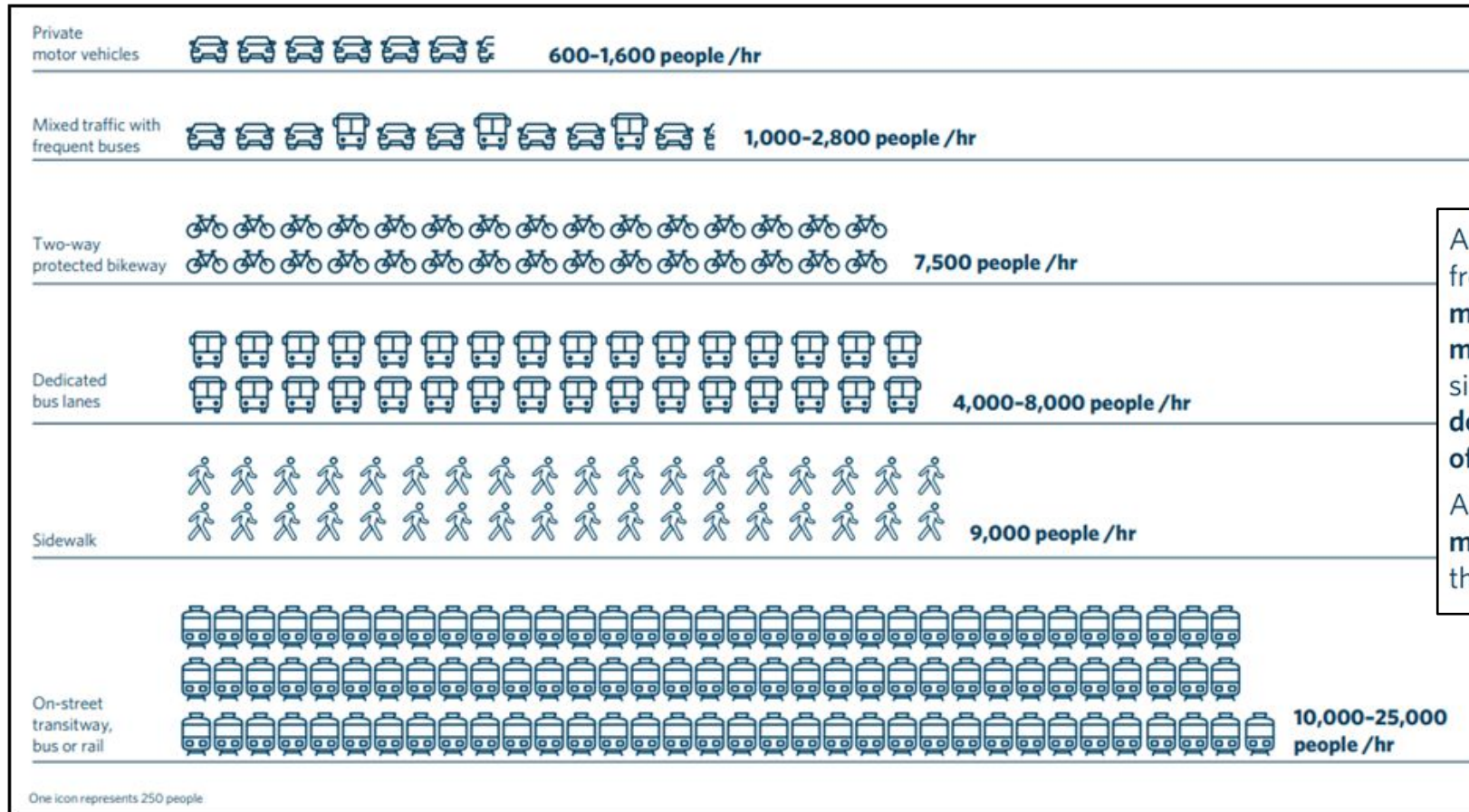
Congestion occurs when the number of vehicles travelling exceeds what the network can manage

- Auckland has more extreme peak congestion than cities such as Melbourne, Adelaide, Canberra, and Wellington.
- Direct costs of traffic congestion to individuals are increased fuel and maintenance costs, loss of time due to longer journeys, and inconvenience.
- Benefits of de-congestion in Auckland estimated to be between \$0.9 billion and \$1.3 billion (economic and social cost) per annum (NZIER 2017, [Benefits from Auckland Road Decongestion](#))




Efficiency

The network is most efficient when it's able to move more people



A dedicated bus lane with frequent buses can move **more than 5-10 times as many people** per hour than a lane with single-occupancy cars. Put another way, **one dedicated bus lane can move the same number of people as up to ten lanes of car traffic.**



An on-street rapid transit line (e.g. light rail) can **move up to 40 times as many people** per hour than a lane with single-occupancy cars.

Efficiency

There is a cost to building more lanes or new roads and maintaining them

New Zealand already spends a large amount of money on transport infrastructure – more than any other infrastructure sector. Between 2021-2031 \$31.4 billion will be invested into critical transport infrastructure and services in Auckland. Despite this, congestion vorse.



Costly infrastructure

March 31, 2022

The costs of delivering infrastructure continue to rise.

Funding for roads at lowest levels in a decade

21 MARCH 2023

Local Government New Zealand (LGNZ) is warning that the state of our roads could be the next infrastructure crisis if the Government does not adequately fund maintenance costs.

Our roads are only congested at certain times of the day – 80 percent of the time our roads are free from congestion.

Efficiency



<https://www.youtube.com/watch?v=e3Cm7PNjLfk>

Emissions

Current policies and planned investments are projected to reduce transport emissions by only about a tenth of what is needed by 2030 (Auckland Transport Emissions Reduction Pathway)

New Zealand's transport emissions rose more than any other source between 1990 and 2019, by approximately 80%

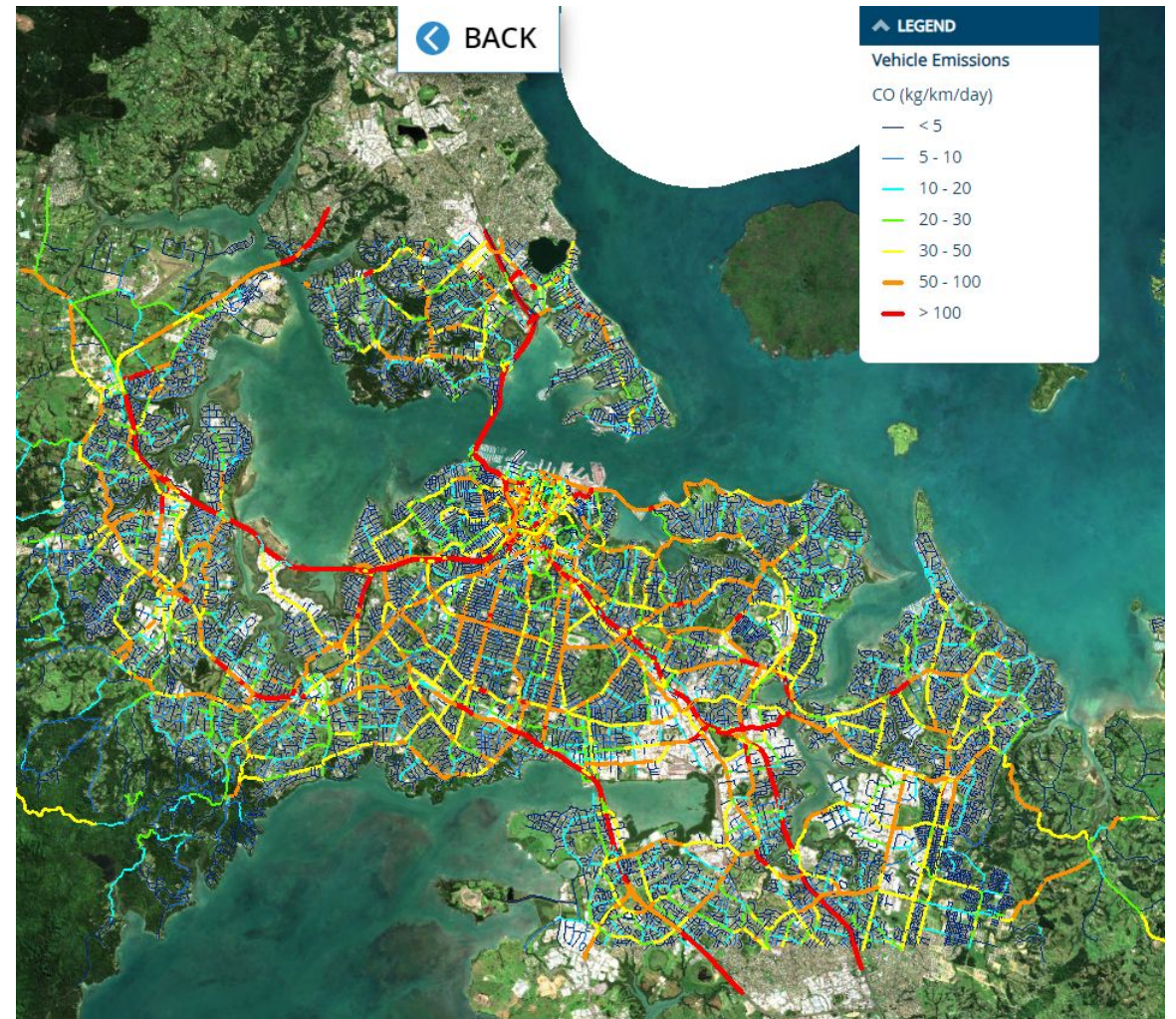
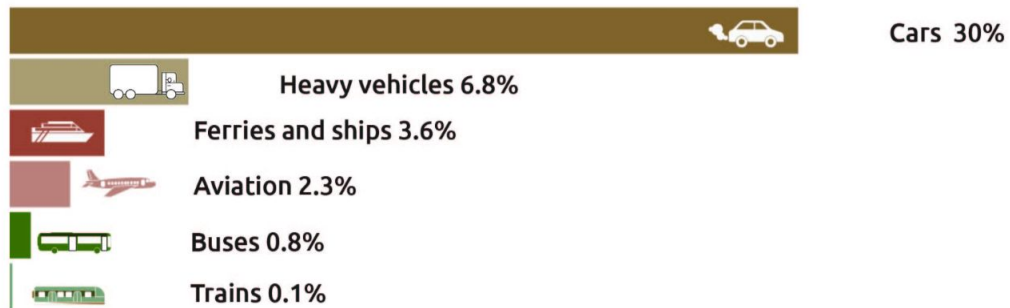


Transport

43.6% of Auckland total emissions
86% of this from travel by road

Auckland's greenhouse gas emissions

Transport breakdown for 2016



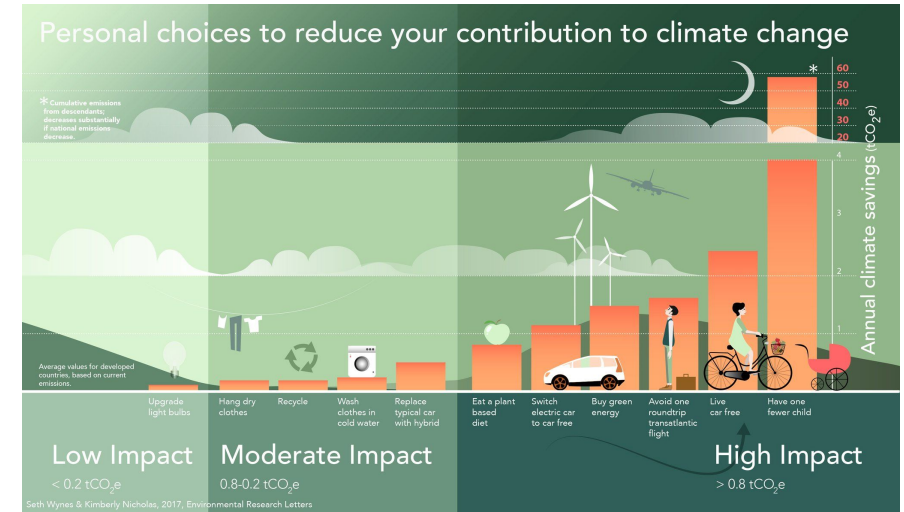
Emissions

EV's can reduce emissions, but are not a silver bullet and won't achieve wider outcomes

Currently EVs make up 1% of the fleet. Hybrid vehicles are about 2% of the fleet.

Challenges

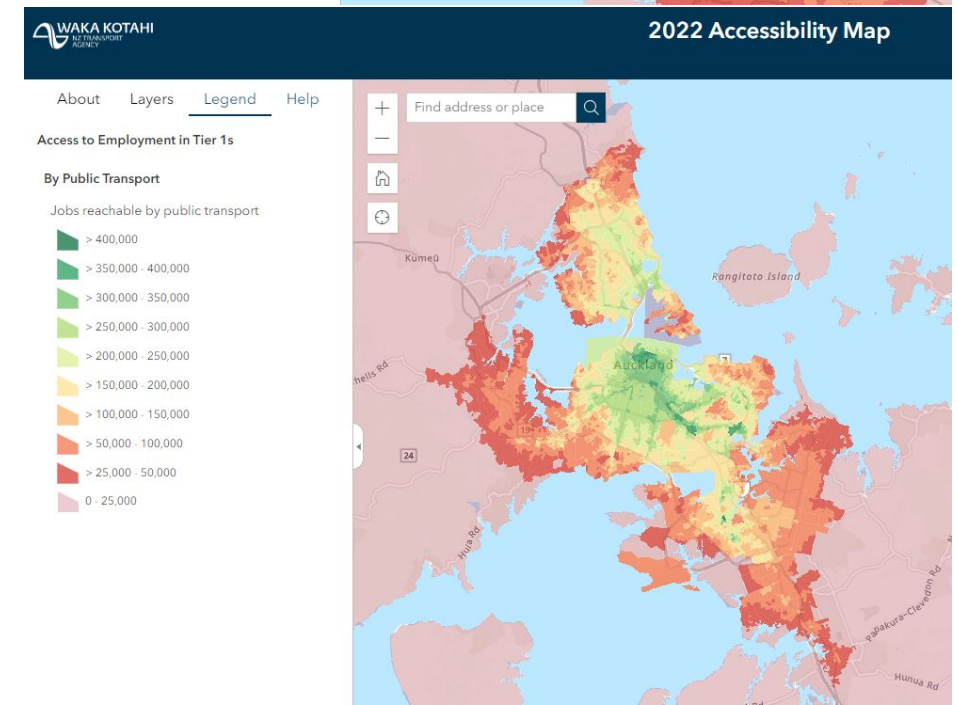
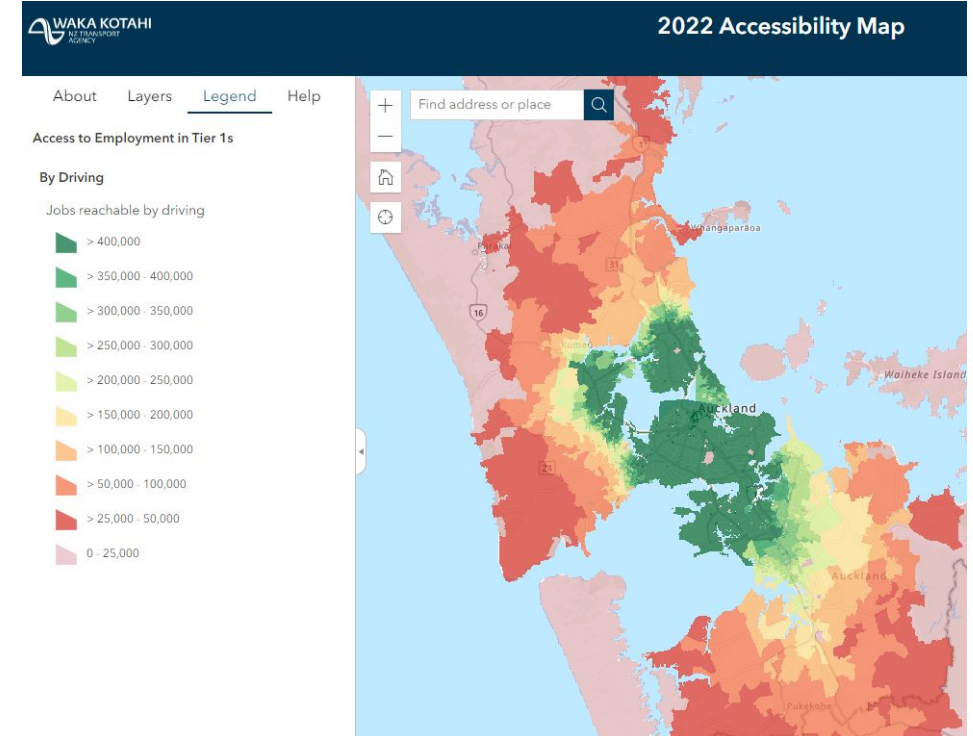
- **Fleet Turnover** - the average age of light vehicles in NZ is about 14 years – meaning most vehicles purchased new today are still likely to be on our roads in 2035.
- **Cost** - EVs are anticipated to reach purchase cost parity with petrol vehicles in the next five years – but many New Zealanders don't buy new vehicles.
- **Availability** - Through 2025, there are expected to be supply constraints due to the limited number of EV models and volumes being produced. The constraints are bigger for used EVs.
- **Infrastructure** - Infrastructure to support a fully transitioned fleet are not yet available at scale and will take time to put in place.



Accessibility and equity

Accessibility refers to peoples ability to use the transport system to access opportunities and places that are important to them such as services, education, cultural opportunities, entertainment, and recreation.

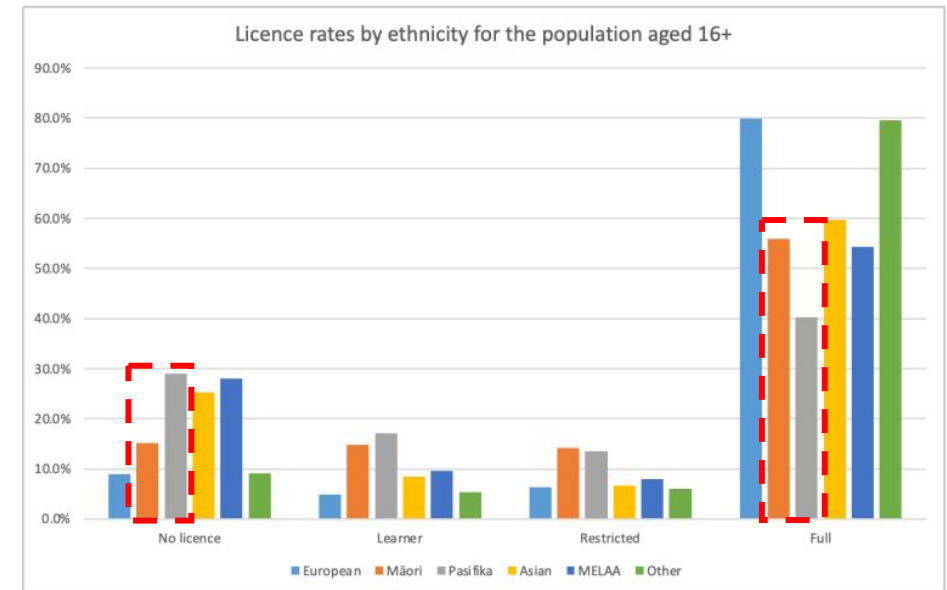
- The transport system generally works well for most people most of the time. But it does not serve the needs of all.
- People who travel to work in peak hours and whose home and workplace are well served by public transport have the most choices.
- Options are significantly reduced for people that can't or chose not to drive.
- People in Auckland who have disabilities and would like to walk and use public transport often cannot do so easily, because transport infrastructure and services are inaccessible to them.



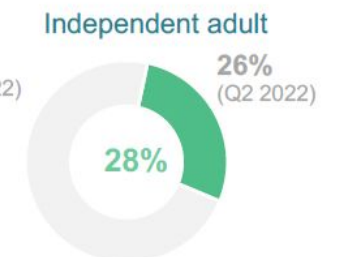
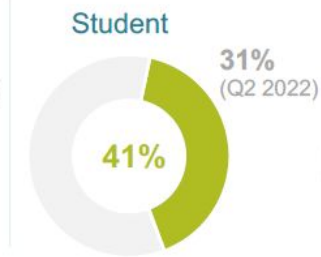
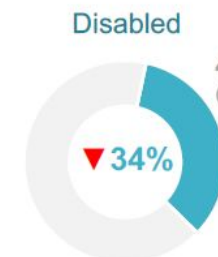
Accessibility and equity

Equity means that the benefits of investment in transport are distributed such that all people are able to participate in society

- Māori and Pasifika peoples are more likely to have difficulty accessing services and destinations such as marae as they have higher levels of people with no licence and also have the lowest rates of having a full licence.
- Younger New Zealanders are more likely to have missed journeys, students most of all. About 20% of our population are too young to drive so they are isolated or depend on others for travel if they cant get to places without a car.
- Approximately 16% of New Zealanders report not travelling in the last week. Younger people, low income households, people with disabilities, Māori and Pasifika peoples are more likely to miss journeys.



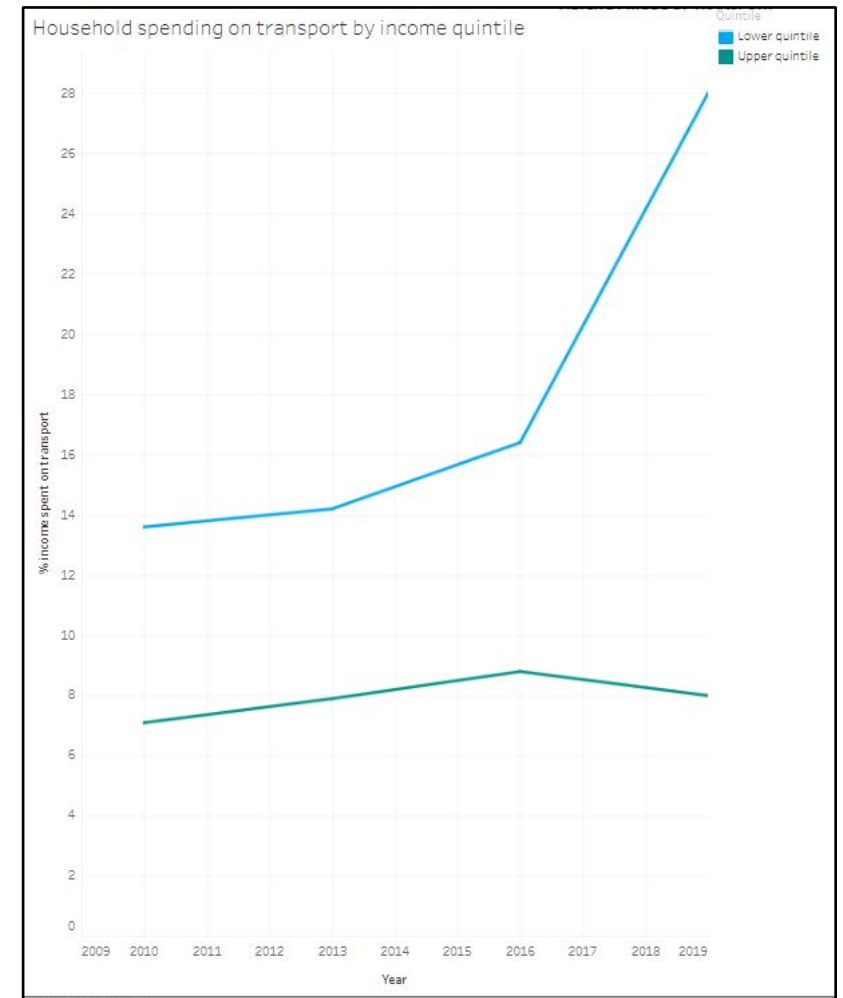
Missed journeys



Accessibility and equity

The benefits and costs of transport are experienced differently by people, depending on whether they belong to a disadvantaged group, and depending on where they live and work

- People most likely to be lacking transport choices or experience poverty induced by people paying more than they can afford for mobility include Māori; low-income groups; women; LGBTQI+ people; disabled people; older people; and ethnic minority groups
- The cost of transport impacts low income household disproportionately due to the combined effects of living further away from good public transport connections; having to travel a long way to access activities; negative effects on wellbeing related to poverty induced by forced car ownership; and increased exposure to transport-related harms including air pollution and road trauma.
- Many work locations are difficult to access by public transport, perpetuating poverty by limiting peoples' employment prospects, and/or enforcing expensive car ownership.



Questions?