

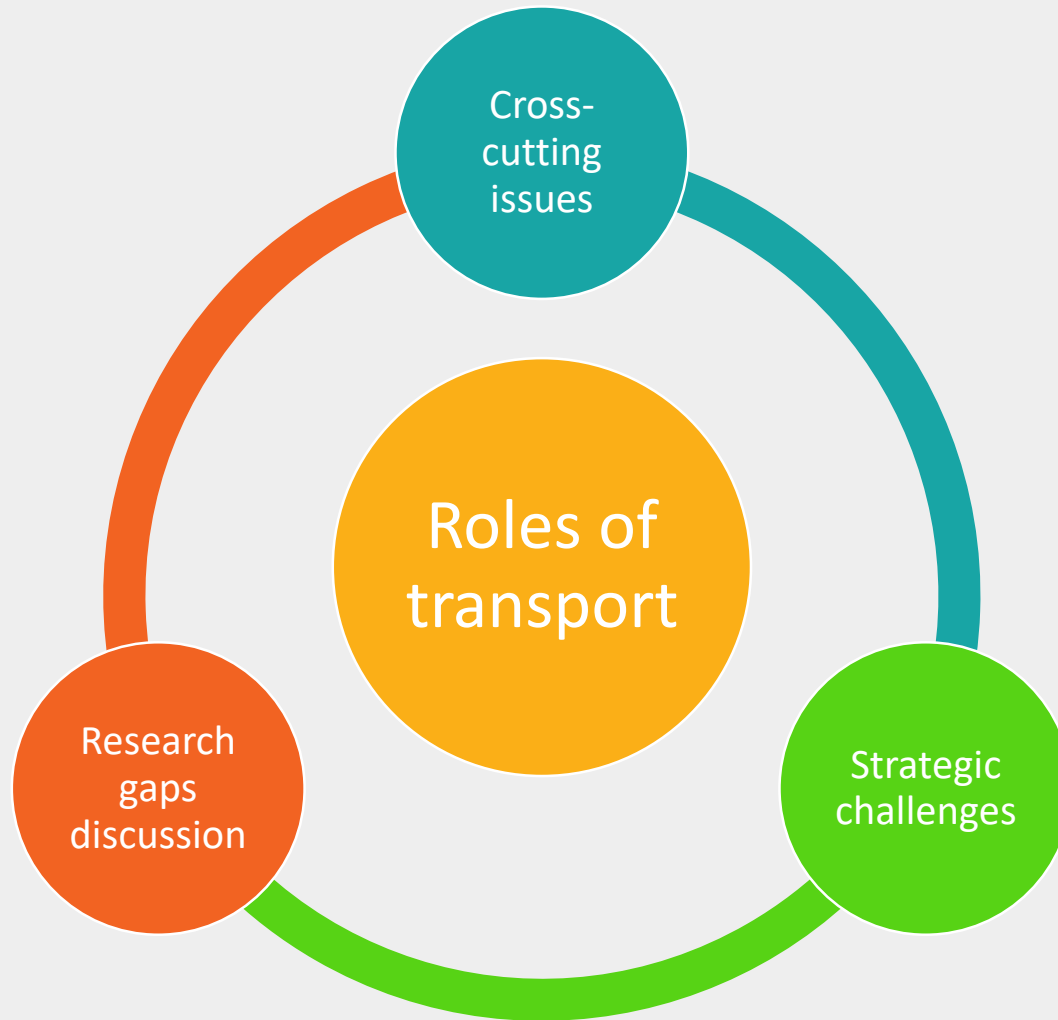
Transport Research Colloquium 2020

The roles of transport in
emerging economic environment

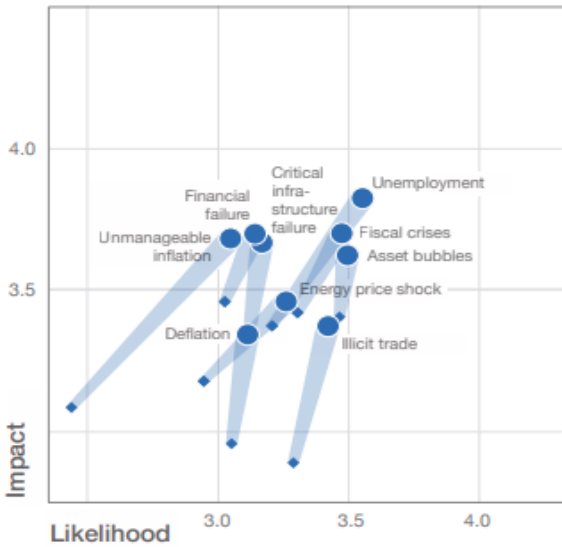
November
2020



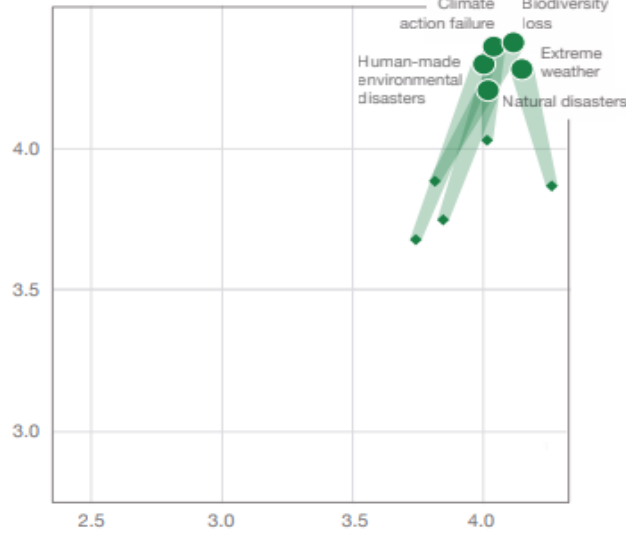
Introduction



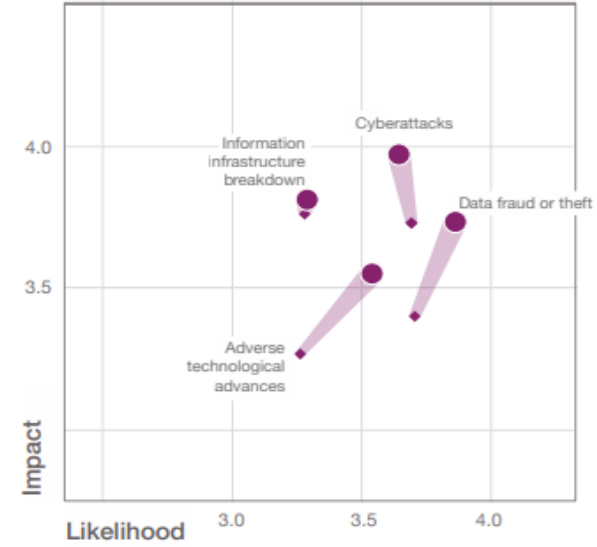
Economic



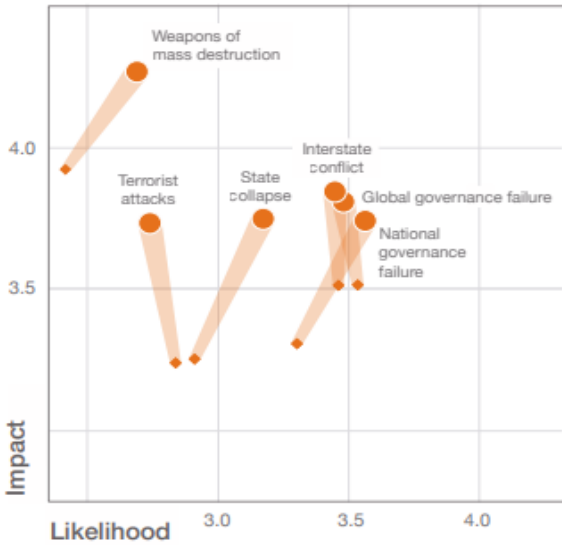
Environmental



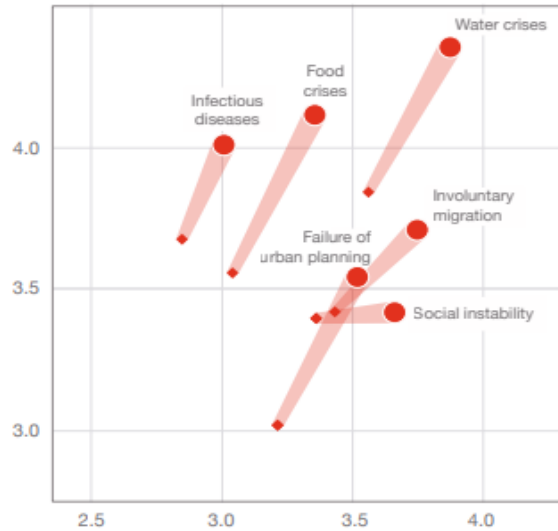
Technological



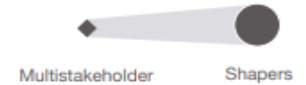
Geopolitical



Societal



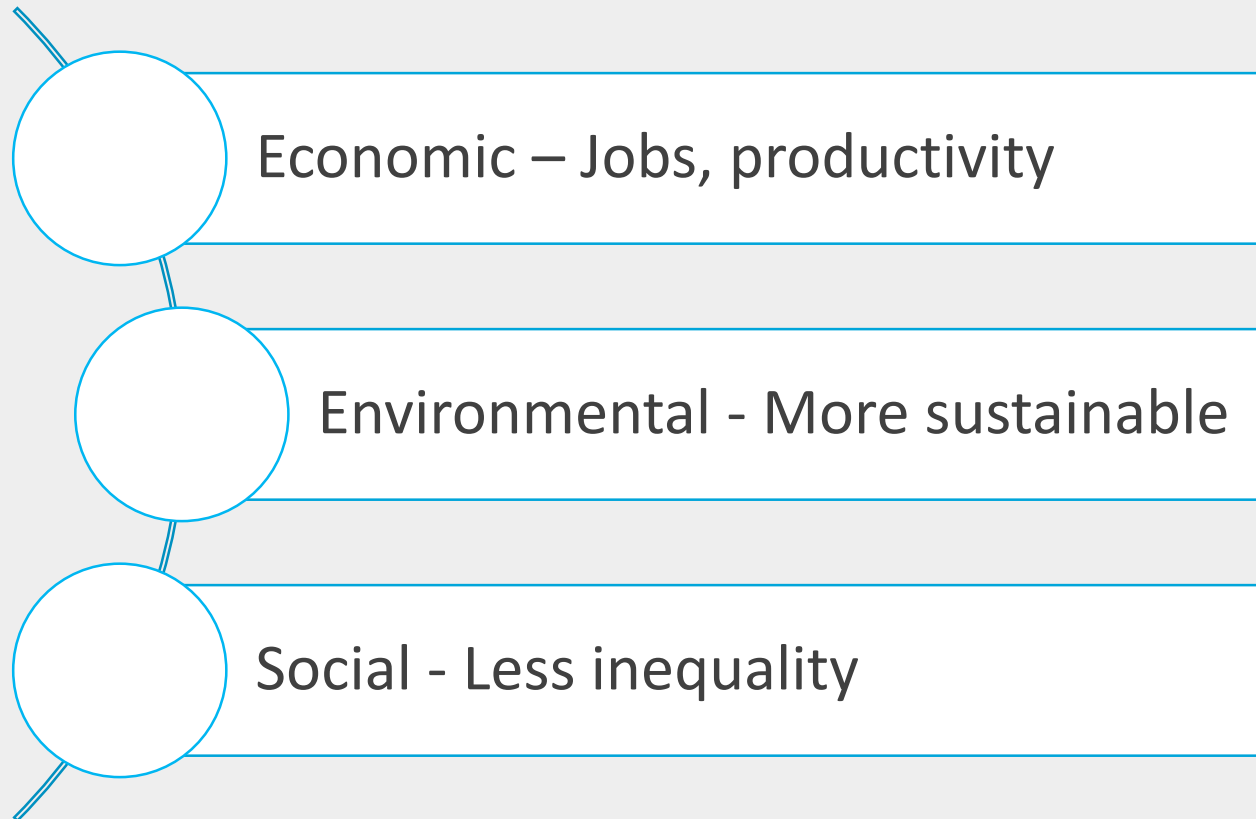
Respondents



The Global Shapers Community is the World Economic Forum's network of young people driving dialogue, action and change.

How to build back better?

- Long standing cross-cutting issues



Transport contributes to 5% of GDP and 4% of NZ workforce, it also supports the tourism industry - both the aviation and tourism industries are severely affected by Covid-19

Before Covid-19



27_m

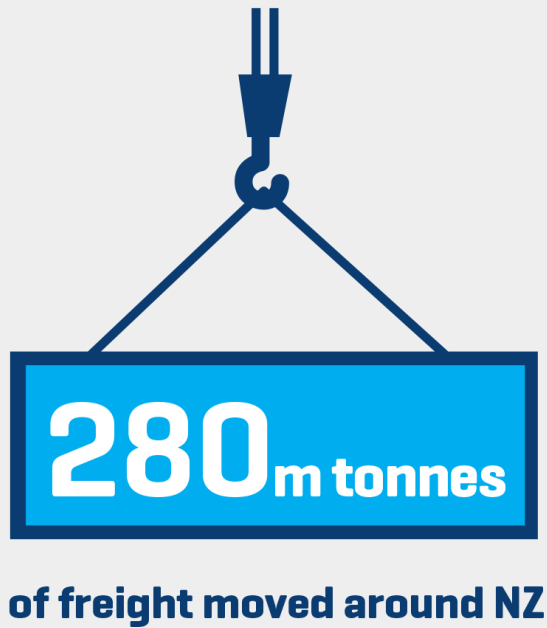
DOMESTIC



36_m

INTERNATIONAL
air passenger movements

Being a small economy, we rely on international trade, the supply chain is currently facing a range of domestic and international issues and uncertainties

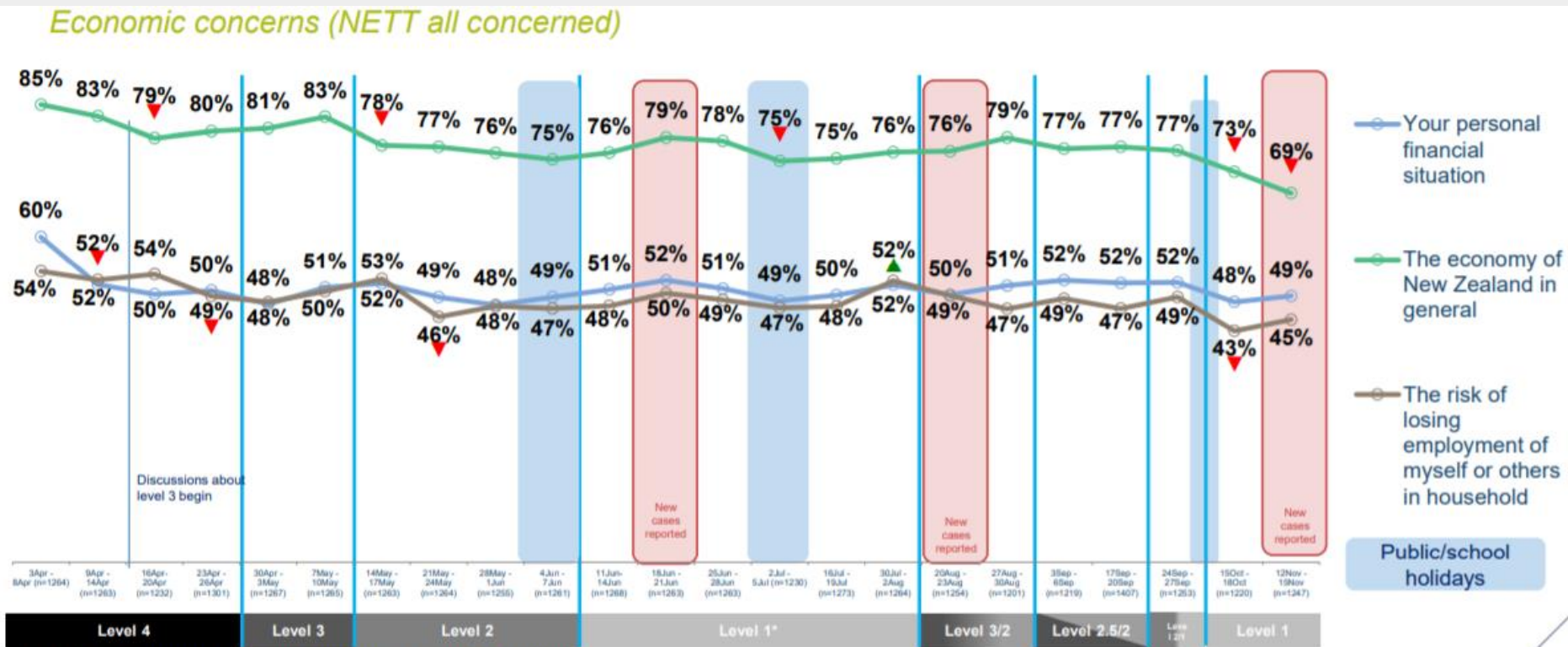


IMPORTED
25m tonnes
in 2018



EXPORTED
45m tonnes
in 2018

Nationally, concerns about the economy of New Zealand have decreased significantly recently, although personal finances are largely unchanged



QPTUSE3. How personally concerned are you about each of the following?
 Base: all adults 15+ in New Zealand *fieldwork frequency decreased from weekly during level 1



▲ Indicates a statistically significant increase from previous time period
 ▼ Indicates a statistically significant decrease from previous time period

We have a range of transport infrastructure assets to maintain and improve – infrastructure investment has traditionally been an area of great interest to the public



100,000

KM OF ROADS



4,000

KM OF RAIL LINES



17

SEA PORTS



25

AIRPORTS

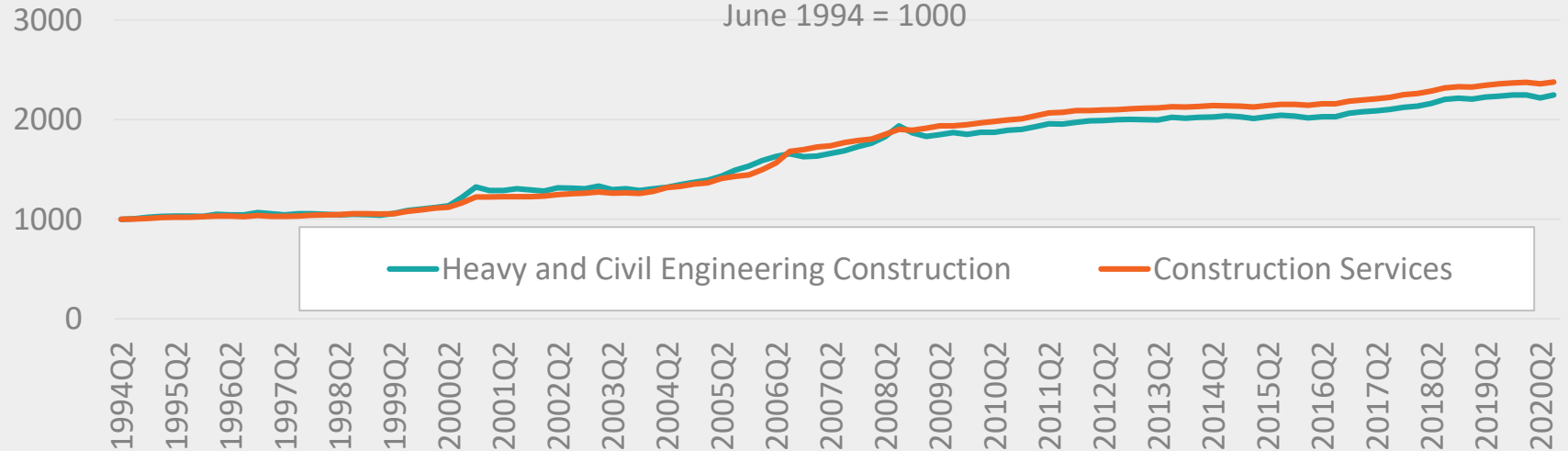
Costs are increasing – So, how do we plan and invest in transport infrastructure in a manner to better utilise limited natural resources and meeting the wider environmental, social and economic goals

World Bank Commodity Price Data

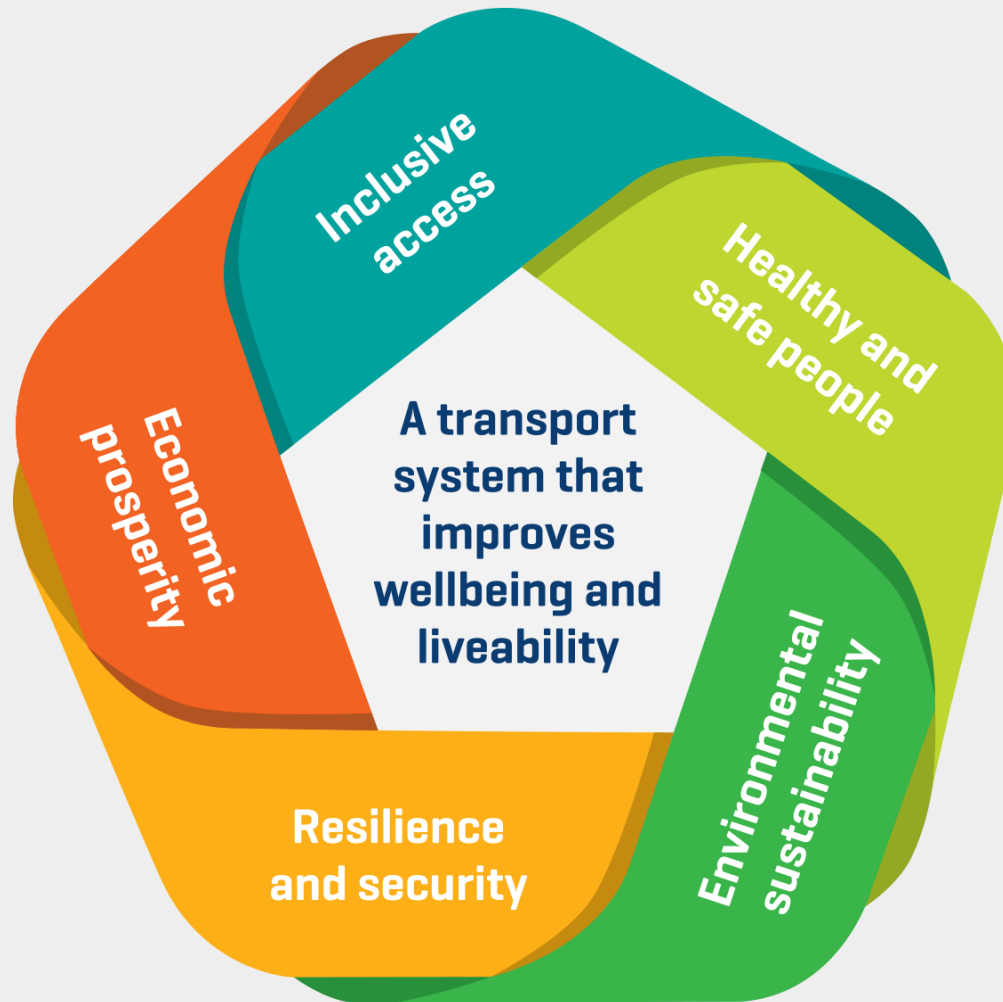


SNZ's Producer price indices (inputs)

June 1994 = 1000



Although infrastructure plays a key role in supporting the transport system, we have been placing more emphasis on delivering a transport system that improves wellbeing and liveability as outlined in the Transport Outcomes Framework



We travel on average an hour each day with 80% of travel across all the regions for over 5 year olds is by car



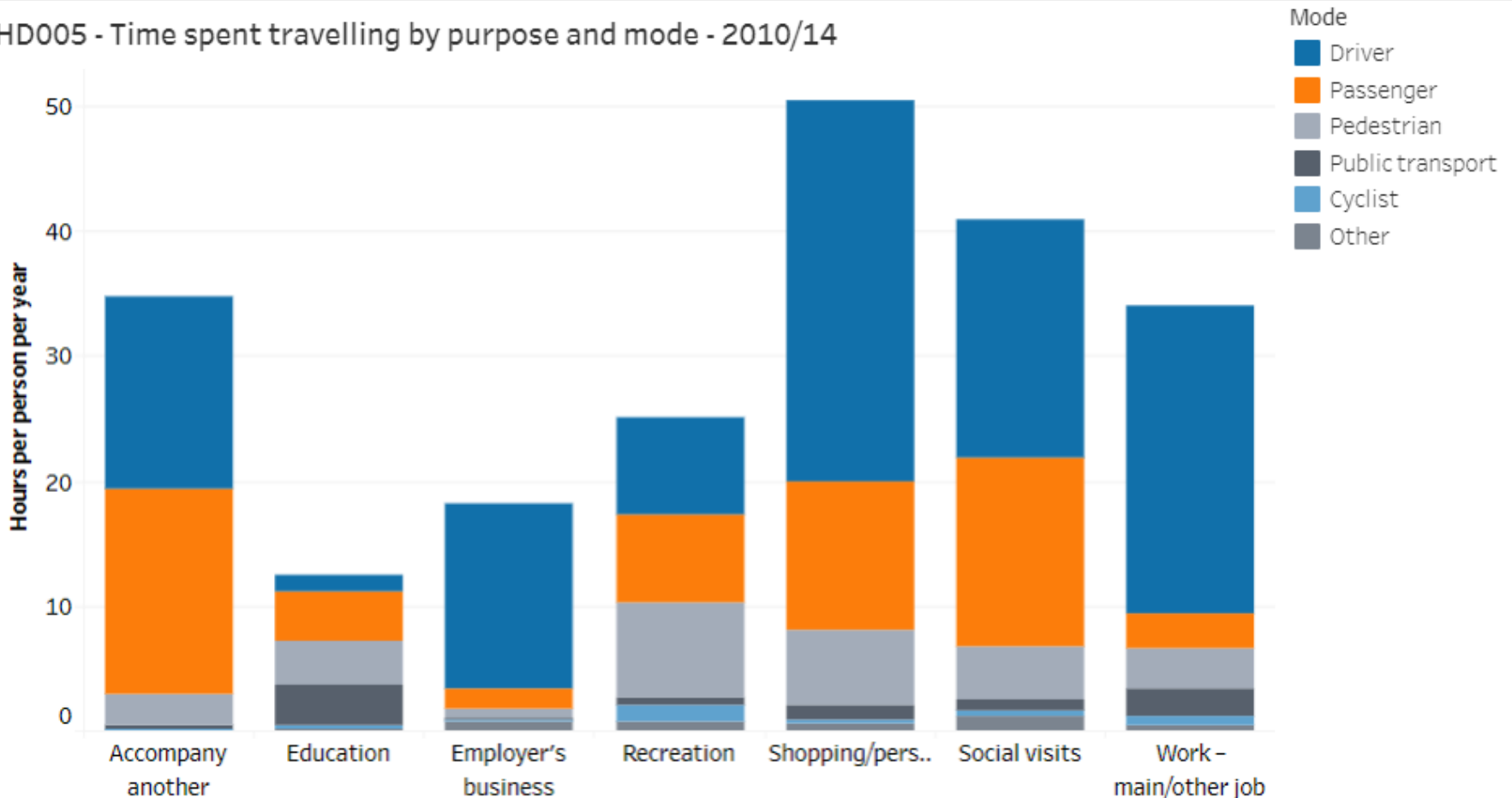
**per person travelling
EACH DAY**



**travelled per person
EACH YEAR**

Aside from commuting, travelling by car is also a key form of transport for shopping & employer's business

HD005 - Time spent travelling by purpose and mode - 2010/14



Source: New Zealand Household Travel Survey (Ministry of Transport)

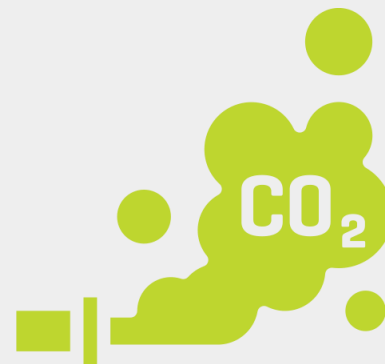


How do we reduce transport green house gas emissions and what level of reduction is realistic and by when?



16_m tonnes

**EMITTED FROM
TRANSPORT**



90%

**OF EMISSIONS ARE
FROM ROAD TRANSPORT**

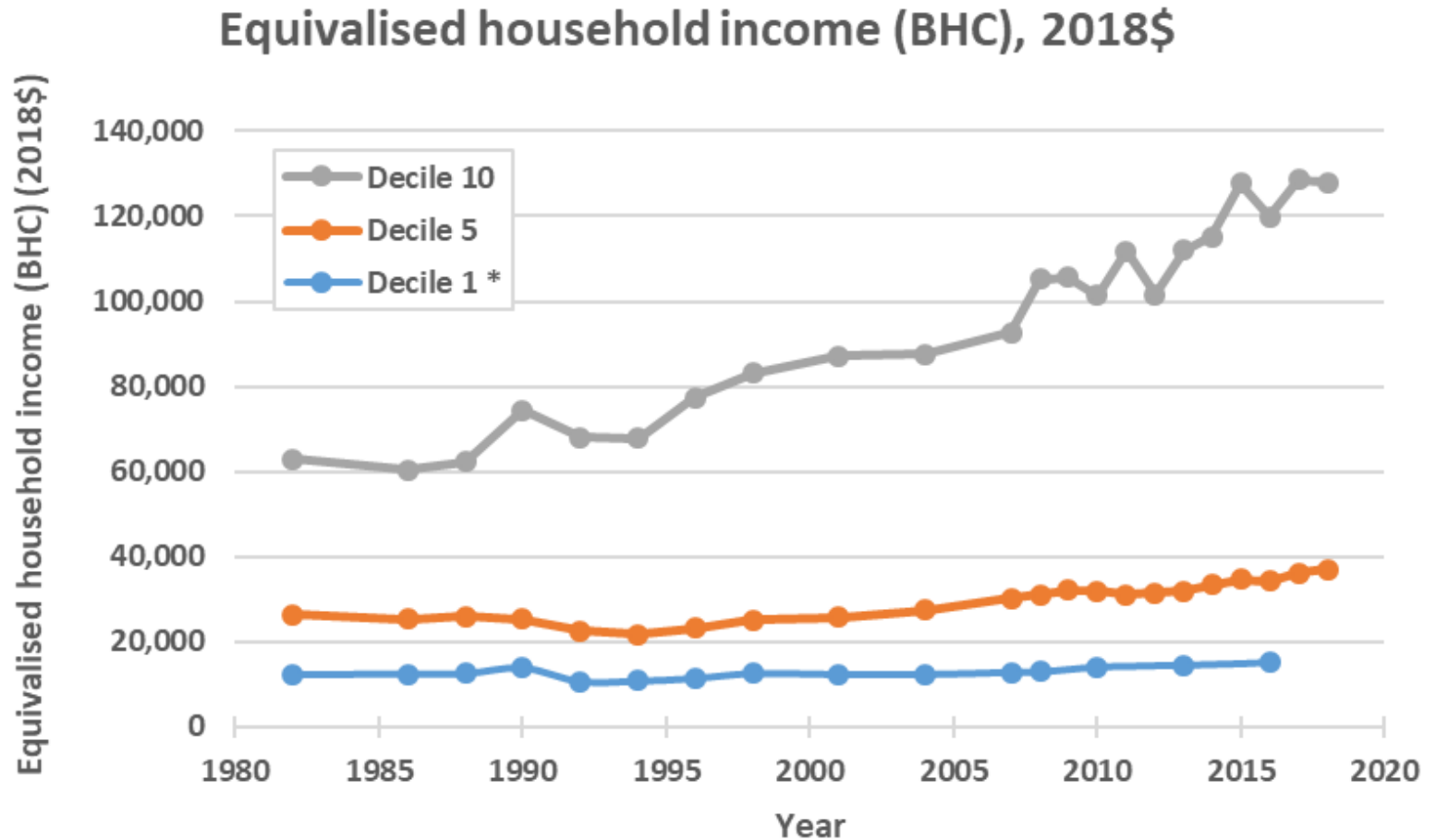
One way to reduce GHG emission is through reduction in the amount of travel we do. While working from home seemed to be viable for many jobs during the lockdown, data shows the trend might be reverting.

Working from home

Potential for major impact on the transport network



Covid-19 impacts different population groups differently with young workers, women and rural communities more vulnerable, especially those belong to the low income groups



Data source: MSD (2019), * = Modified dataset for Decile 1

Risks from not managing changes effectively

Social risks

- Safety and security threats
- Public transport viability
- Digital and financial exclusion
- Effects on health and wellbeing


Environmental risks

- Urban sprawl
- Local environment
- Congestion

Economic risks

- Abuse of monopoly power
- Job loss
- Skills mismatch

Actions by the business sector

chapman tripp 

“Climate change is no longer an ethical issue. As a material financial risk, directors are accountable under care and diligence duties to take account of the financial consequences of climate change...”

Chief Justice Winkelmann,
Justice Glazebrook, Justice France (2019)

**Managing climate risk in
New Zealand in 2020**

A tool kit for directors



The
Aotearoa
Circle

Mā te Kaitiaki
Mā te Tohunga
Pāwhiri Te Whiri
Gardiner

Key recommended actions for business directors:

- Track the views of consumers to see if and how social values are changing
- Conduct future-focused scenario analysis to enable values-based approaches to strategy
- Take climate risk seriously and re-evaluate plans and strategy as information changes
- Create time, space and budget to tackle climate risk
- Recognise the increasingly measurable impact of climate-related financial risk on company and asset valuations



Sustainable Finance Forum

Roadmap for Action

Final report – November 2020

Changing mindsets

- Make environmental and social impacts compulsory in investment
- Develop capability thru education and training
- Improve public and private sector governance

Transforming the financial system

- Improve data and information
- Improve reporting and disclosures
- Improve coordination
- Integrate environmental, social and cultural outcomes into decisions
- Create an inclusive financial system
- Develop whole-of-government strategy

Financing the transformation

- Improve prudential regulation
- Develop standards and pathways to encourage investments for environmental, social and economic outcomes

NZ Sustainable Business Network (2020) The Circular Economy Opportunity for Auckland

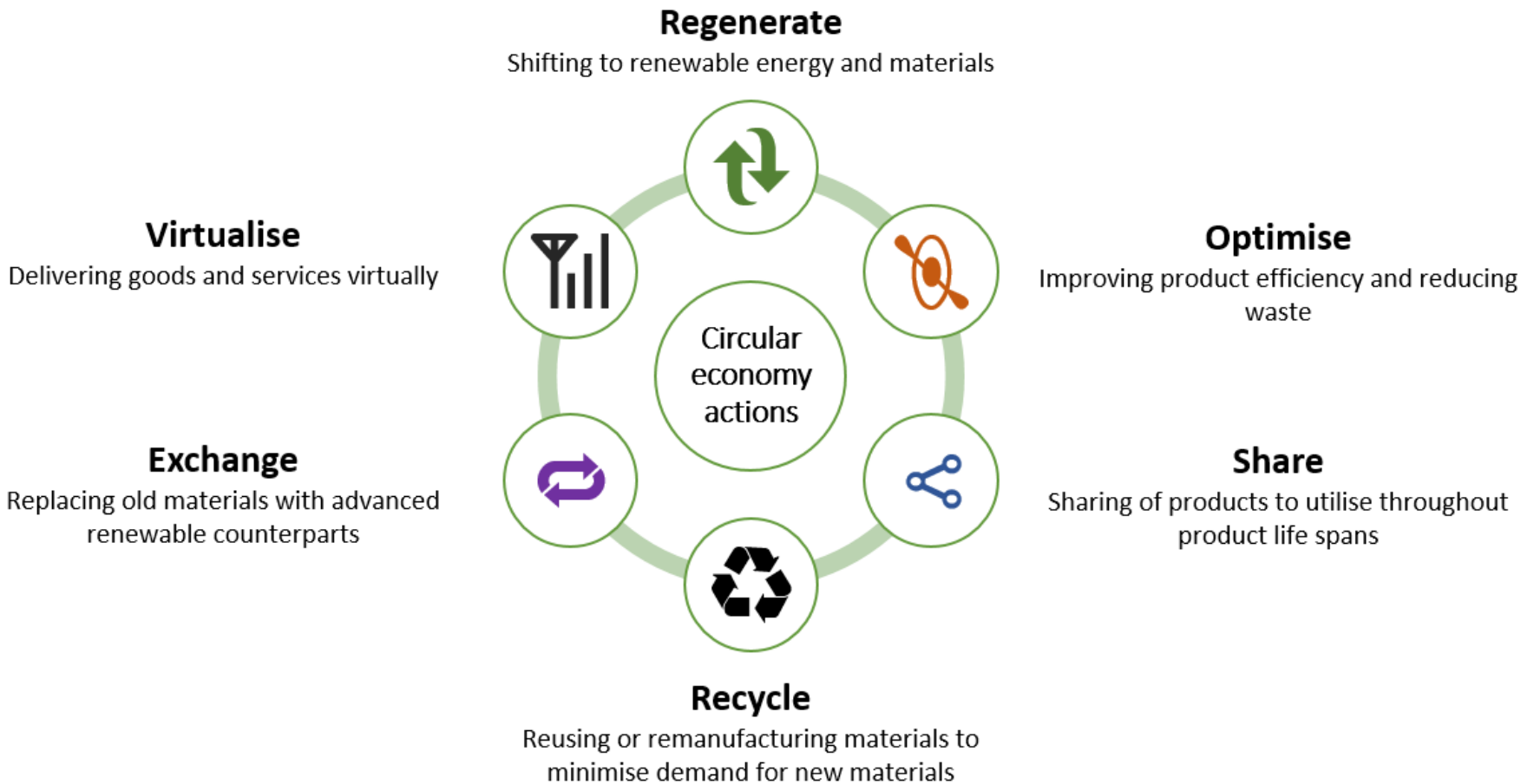
Auckland
could liberate up to


**\$8.8
BILLION**

in additional economic activity
and reduce carbon emissions by

**2,700
ktCO₂e in 2030**

The roles of transport in a circular economy





In this session, we would like to explore the research required to better understand and gear up what the transport sector could/should do in meeting a range of strategic challenges such as:

How do we plan around domestic and global economic uncertainties (e.g. pandemic and the broader geopolitical issues) to better cushion the impacts on trade and transport?

How do we understand what drives changing consumption behaviour so that we make the right transport policy and investment decisions to influence those behaviour?

How do we develop capability and capacity to utilise and understand the level of data that is available due to (accelerated) e-commerce and digitalisation?

How do we better understand what drive decisions on flexible ways of working to assist development of enabling urban and transport planning?

How do we navigate changes in the supply chains, e.g. the uptake of reproduction, reuse and recycle, and the demand for different logistics services (e.g. reverse logistics)?