The South Island Freight Task

Presentation to the Chartered Institute of Logistics and Transport Southern Section AGM

"A more efficient and effective freight system can raise the prosperity of New Zealand's businesses and workers and enhance consumers' purchasing power."
-Productivity Commission

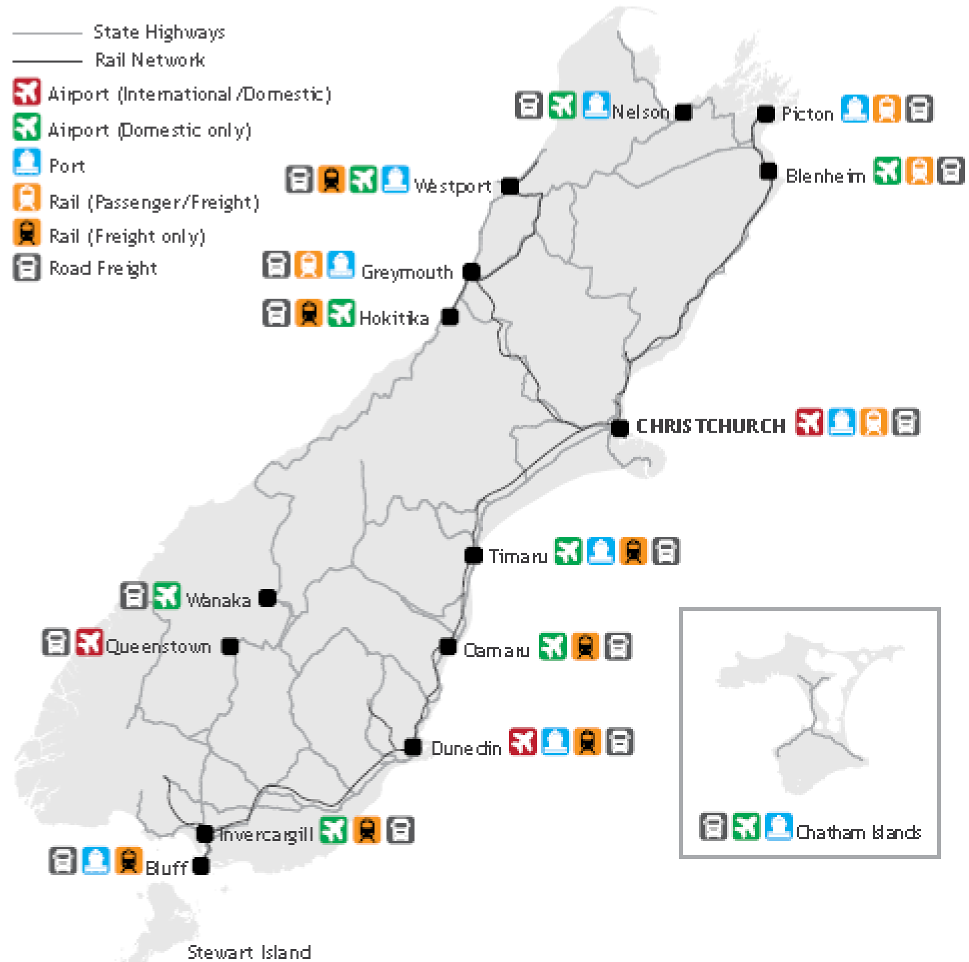
Jim Harland, Regional Director Southern

NZ TRANSPORT AGENCY
WAKA KOTAHI

New Zealand Government

The South Island Freight Network

- 4,921km State Highways (12%)
- 35,456km local roads (88%)
- 1,661km rail lines
- 1 long haul international airport
- 2 short haul international airports
- 8 domestic airports
- Two major container ports
- 6 regional ports

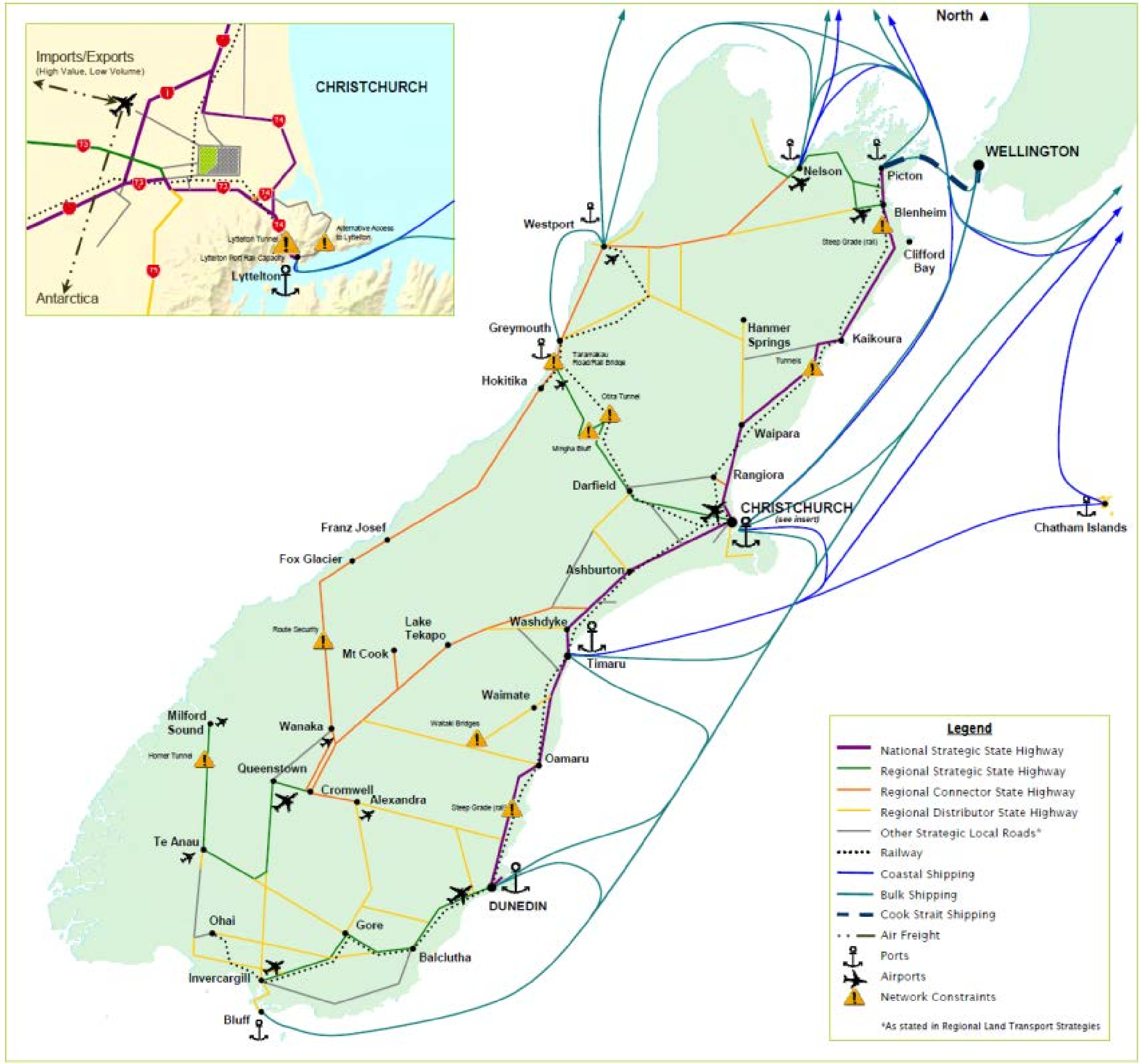


Freight Production Areas

NZ TRANSPORT AGENCY
WAKA KOTAHI

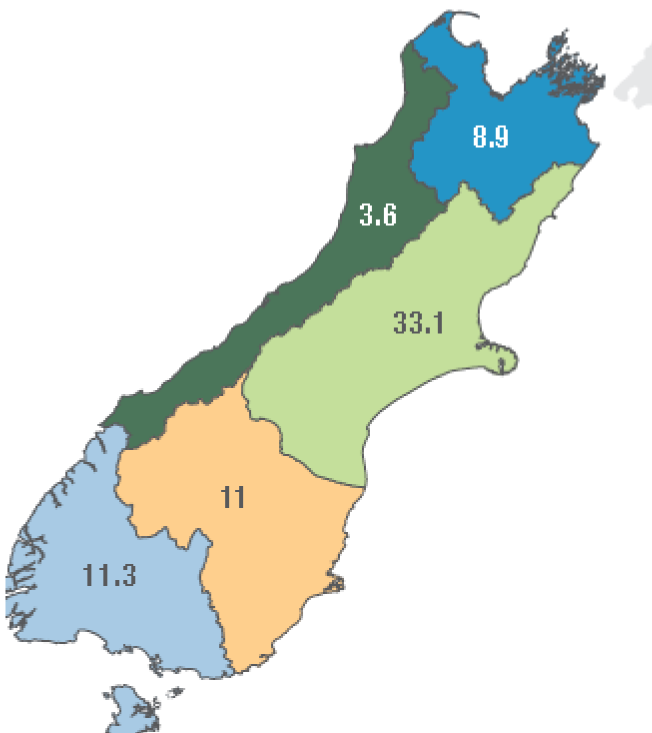
New Zealand Government

Strategic Freight network

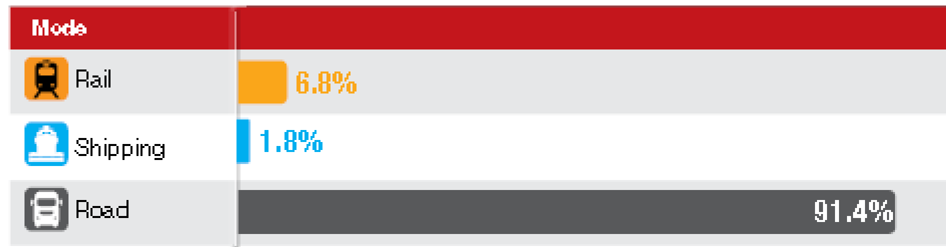


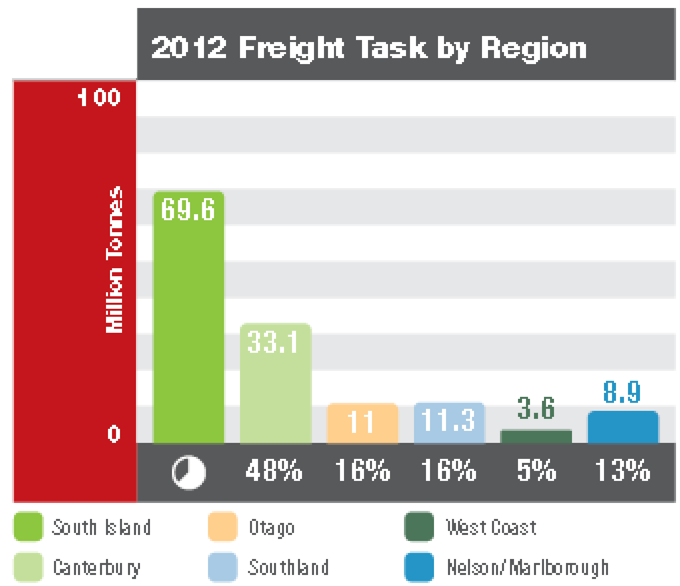
The Current Freight Task

- In 2012, 69.6m tonnes moved, most of it within regions



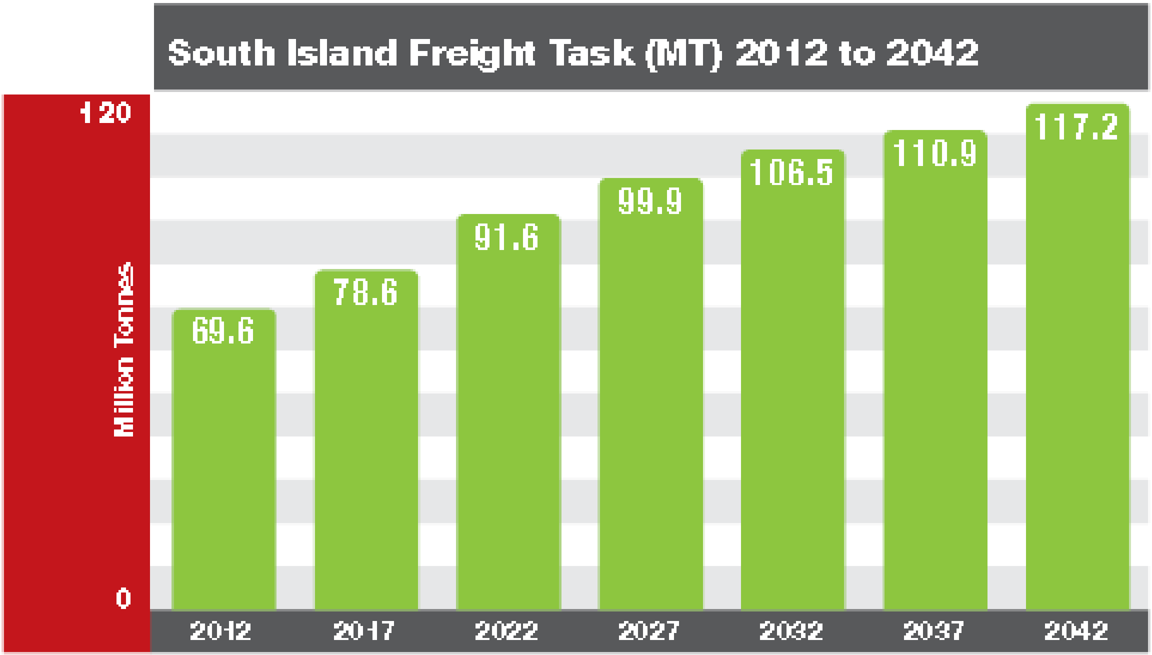
Figures shown in millions of tonnes



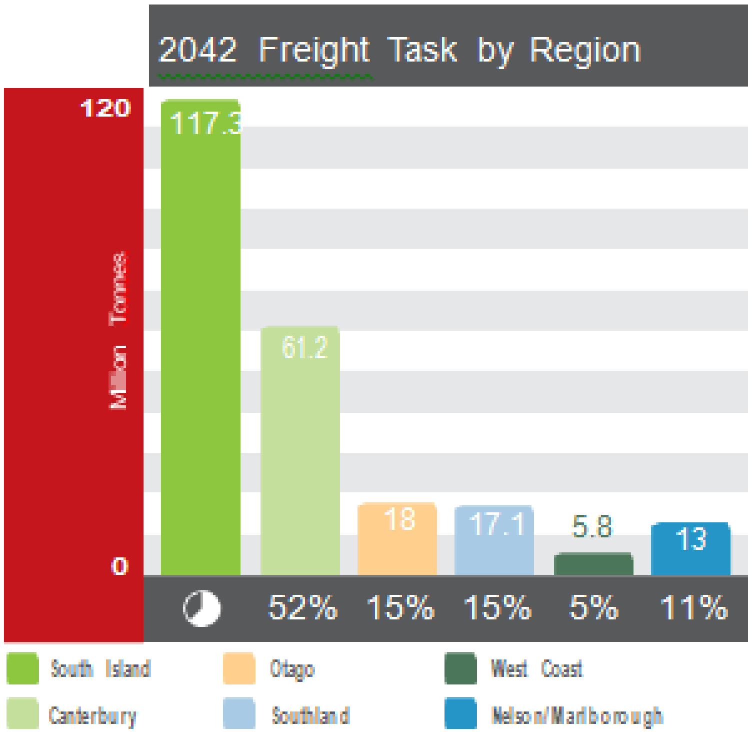


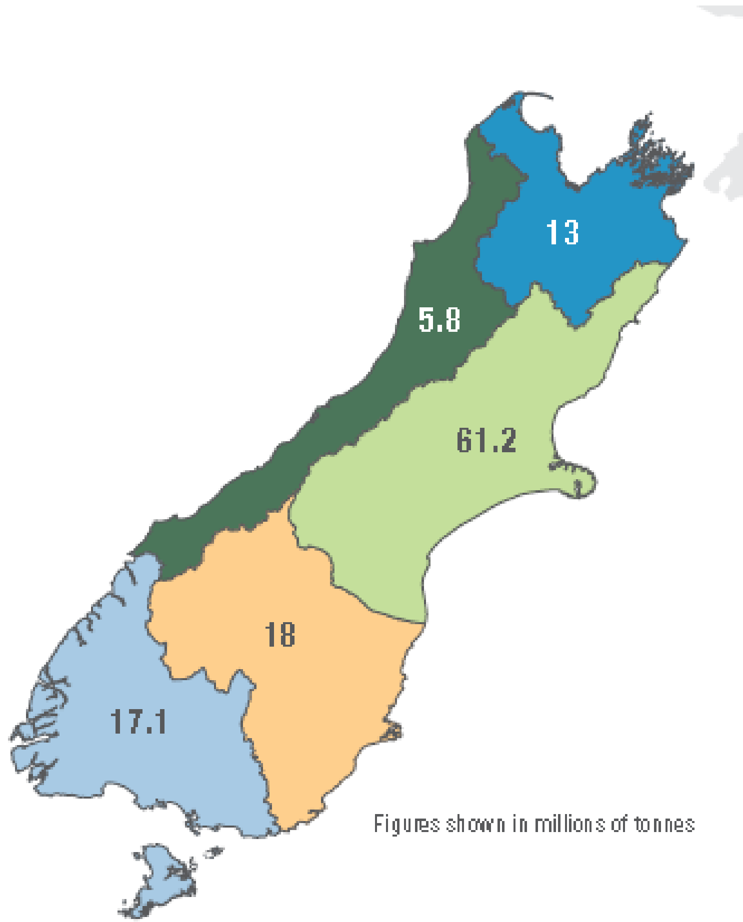
The Demand for Freight in the Future

- Between 2012 and 2042 freight task is predicted to increase by 68%
- This is an increase of 47.7m tonnes to a total of 117.3m tonnes

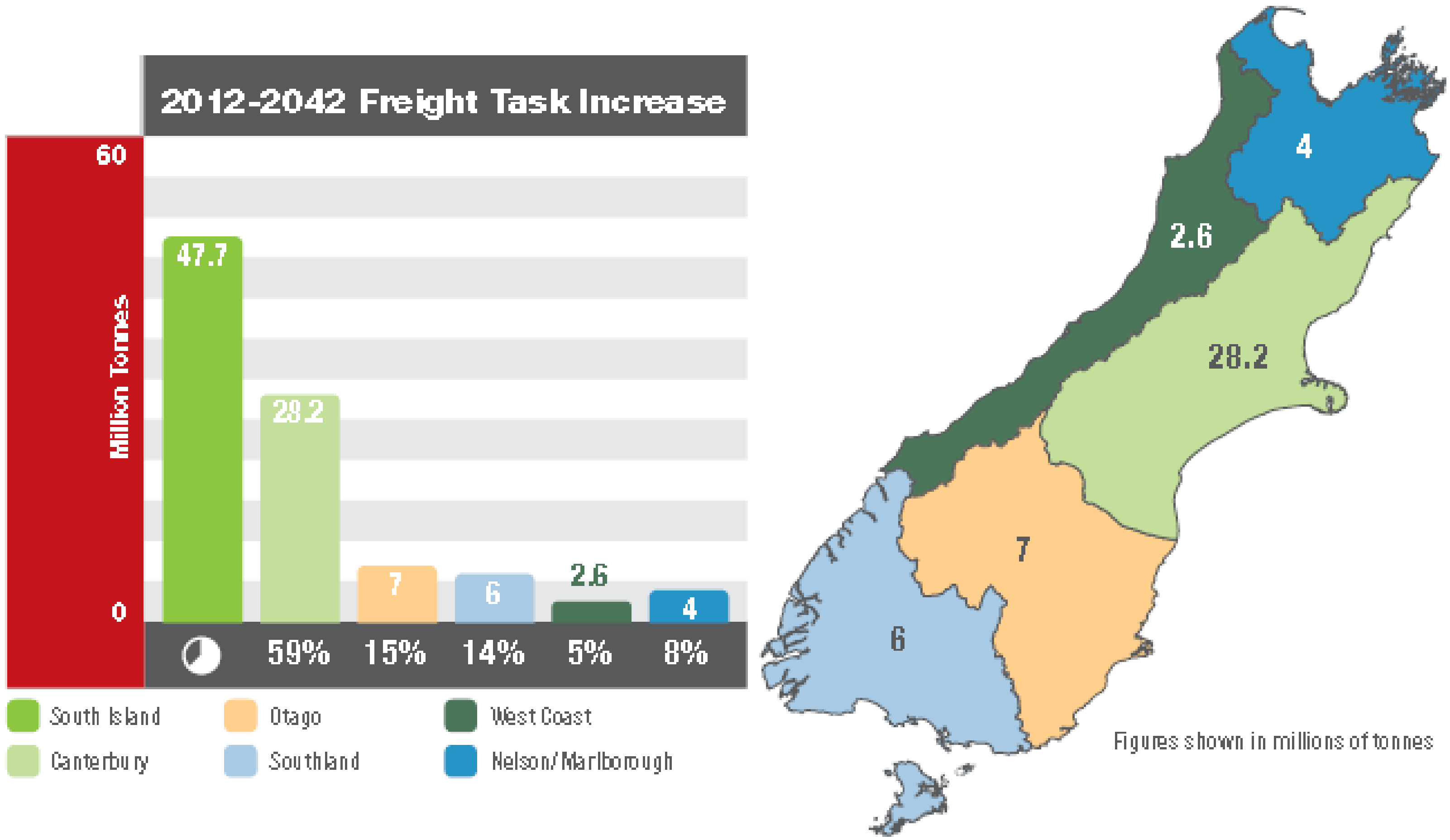


The Regional Demand in the Future





The Regional Increase in Demand

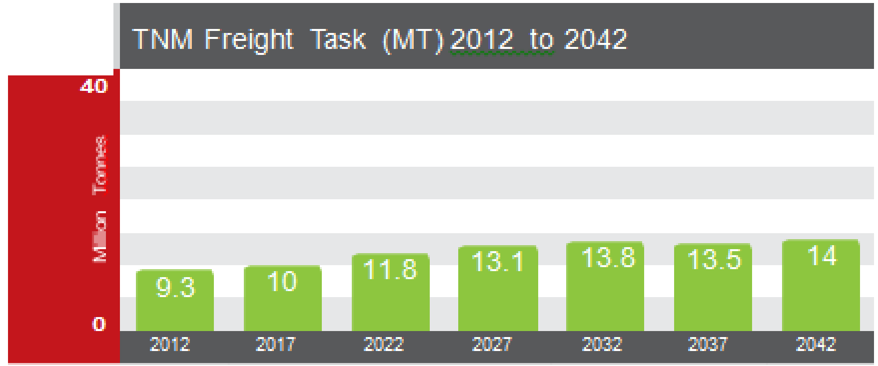


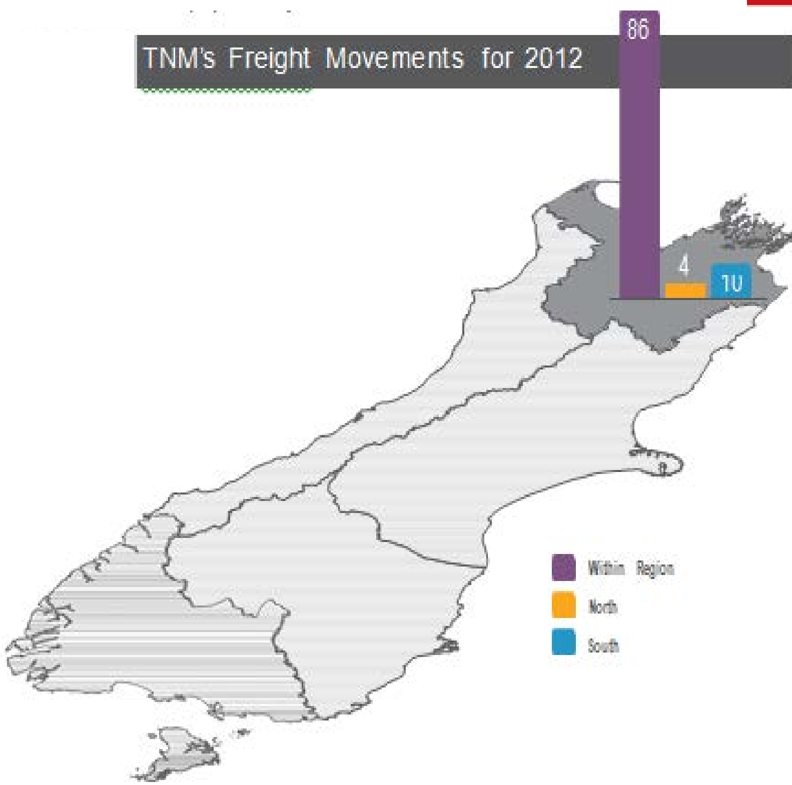
What is driving this demand?

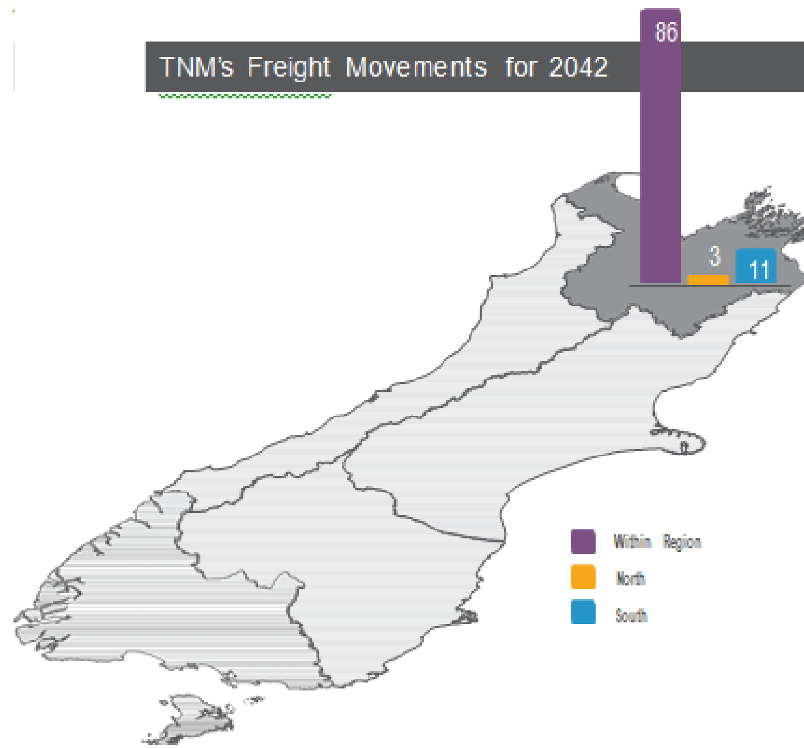
Forecast Freight growth for the South Island by commodity (million tonnes)									
Commodity	2012	2017	2022	2027	2032	2037	2042	30 Year Growth (MT)	% of Total Growth
Liquid Milk	7.97	9.98	12.7	13.59	14.48	15.43	16.45	8.48	17.8%
Aggregate	6.84	8.06	9.21	10.38	11.51	12.66	13.79	6.95	14.6%
General Freight	14.6	15.78	17.03	18.17	19.28	20.34	21.38	6.78	14.2%
Limestone, Cement, Fertiliser	4.33	5.5	6.61	7.84	8.6	9.37	10.11	5.78	12.1%
Concrete	1.86	2.45	3.02	3.57	4.11	4.66	5.15	3.29	6.9%
Manufactured Dairy	2.21	2.79	3.62	3.87	4.19	4.46	4.77	2.56	5.4%
Logs to Sawmills	2.01	2.29	2.61	2.94	3.26	3.58	3.89	1.88	3.9%
Coal	3.16	3.45	3.61	3.76	4	4.34	4.67	1.51	3.2%
Livestock	3	3.3	3.75	3.93	4.1	4.32	4.5	1.5	3.1%
Other Retail	1.3	1.4	1.8	2	2.2	2.61	2.8	1.5	3.1%
Inputs to panel making	1.4	1.58	1.8	2.02	2.23	2.44	2.65	1.25	2.6%
Waste	1.73	1.95	2.12	2.33	2.51	2.7	2.87	1.14	2.4%

- Of these top 12 commodities, liquid milk and manufactured dairy are driven by export demand. The others are driven by population growth

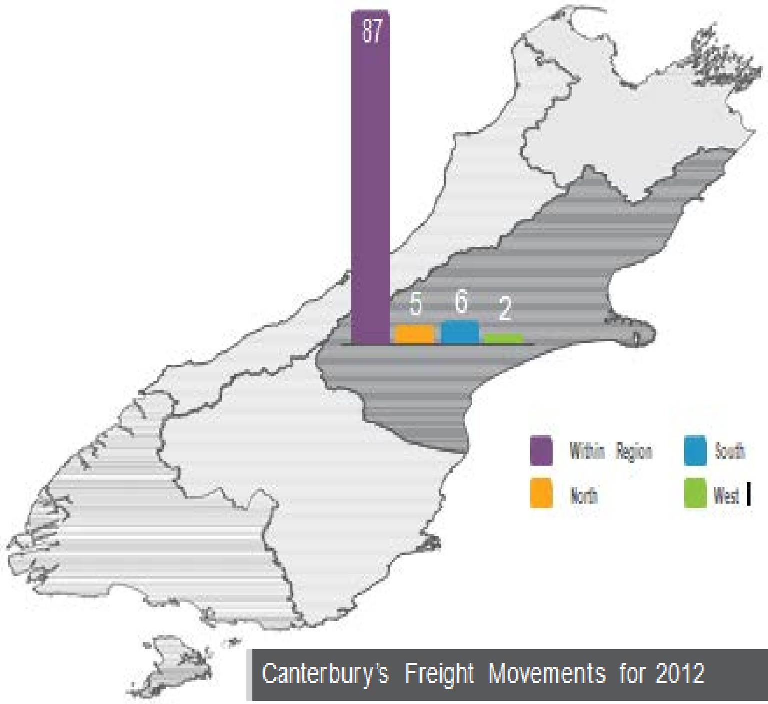
Tasman/Nelson /Marlborough



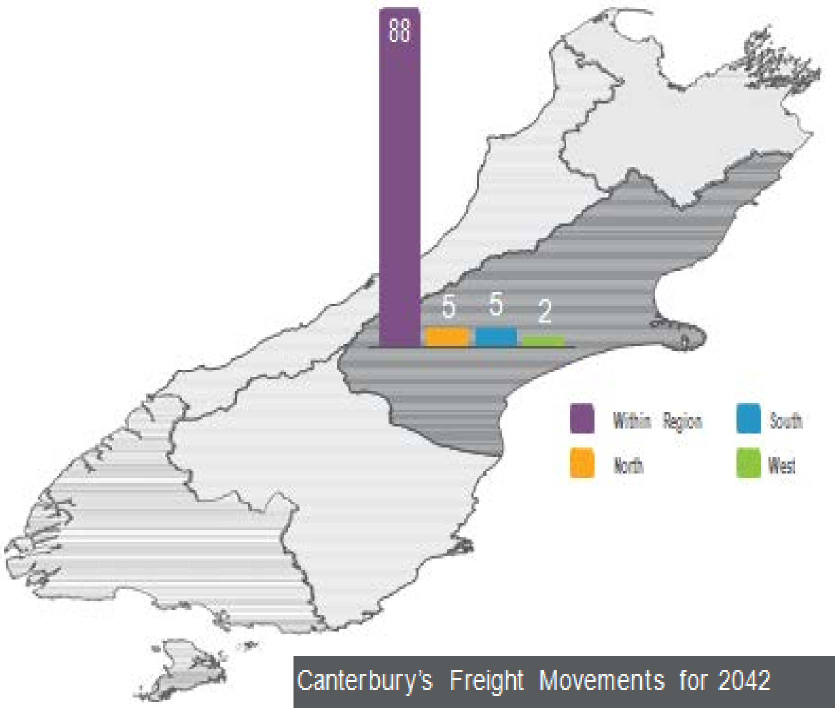




Canterbury

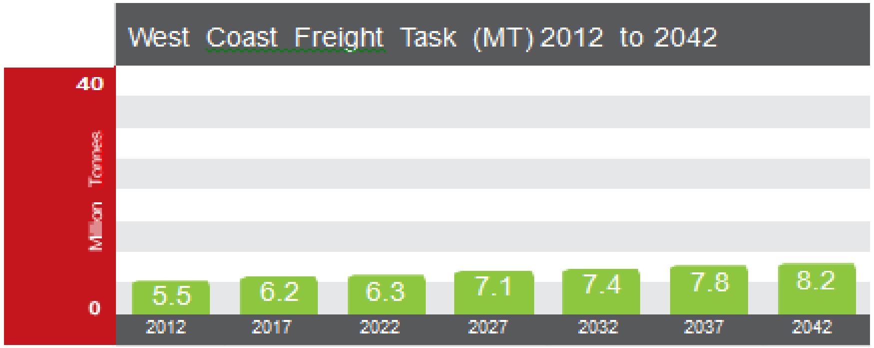


Canterbury's Freight Movements for 2012

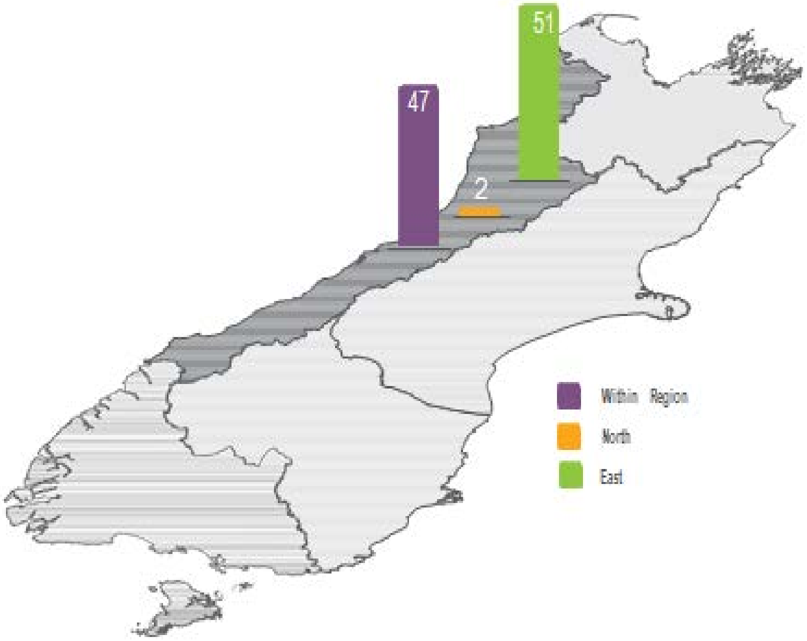


Canterbury's Freight Movements for 2042

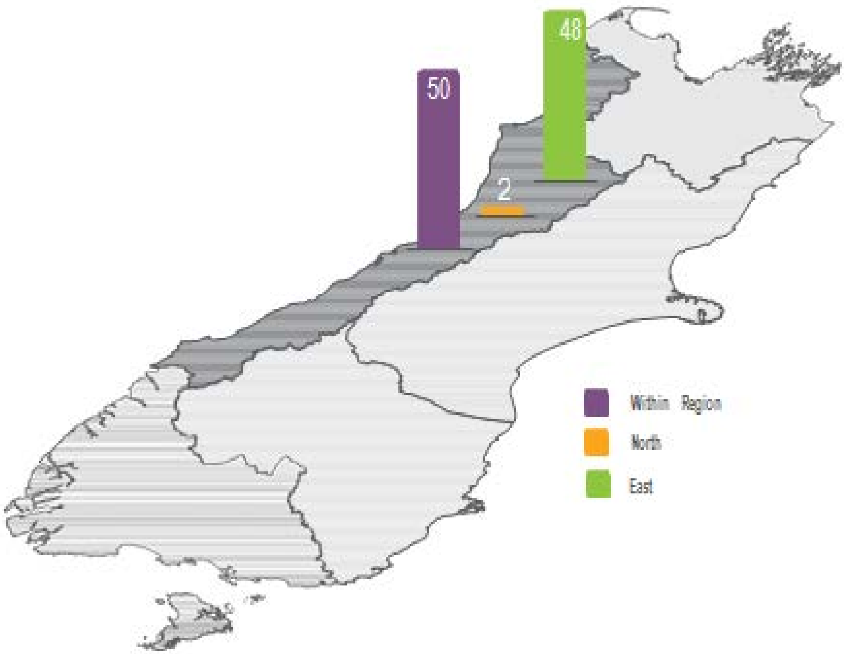
West Coast



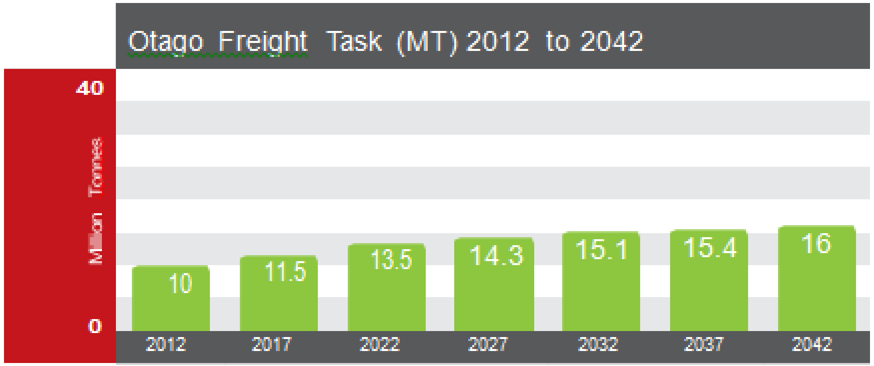
West Coast's Freight Movements for 2012

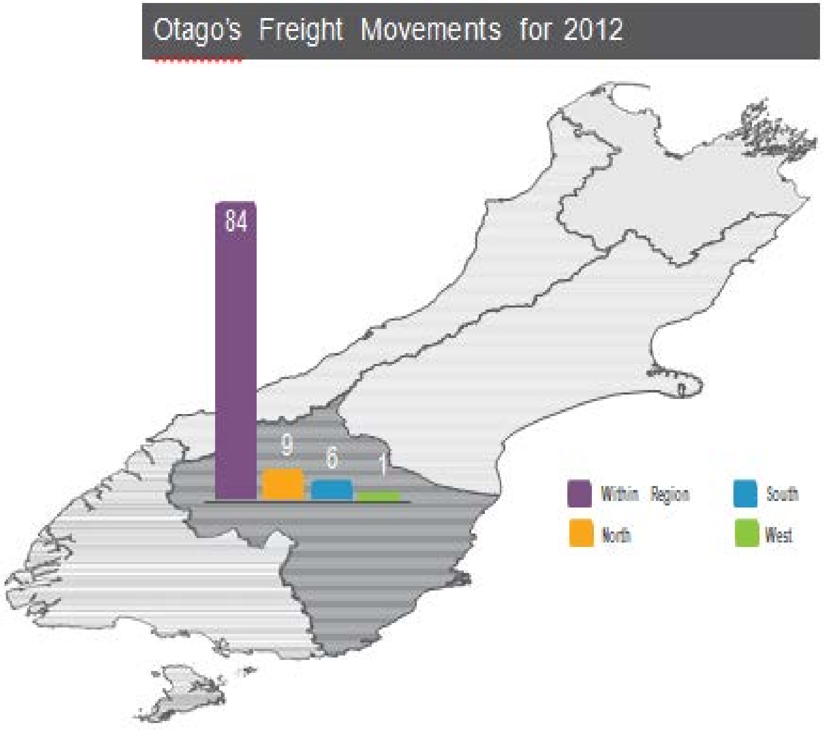


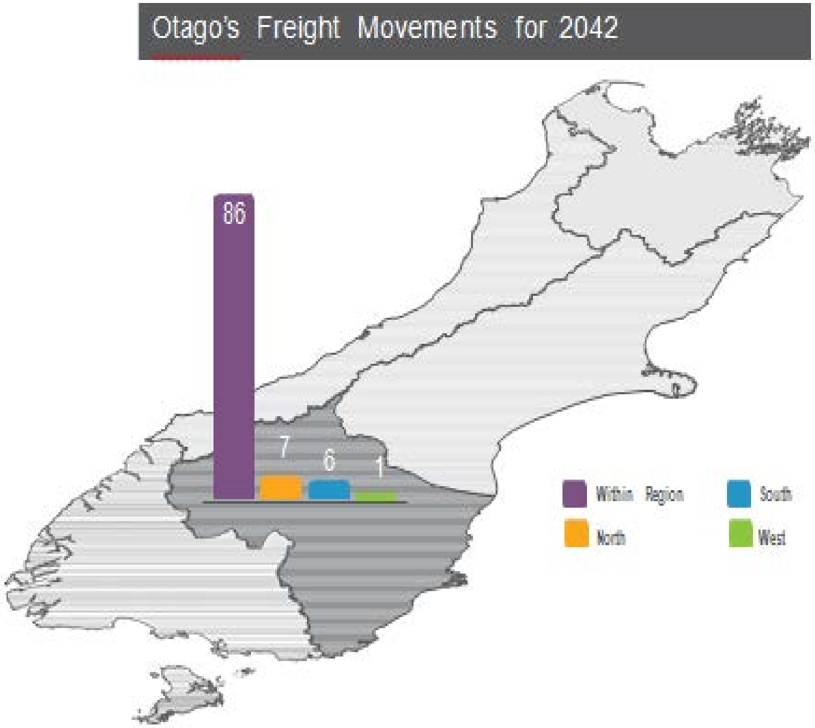
West Coast's Freight Movements for 2042



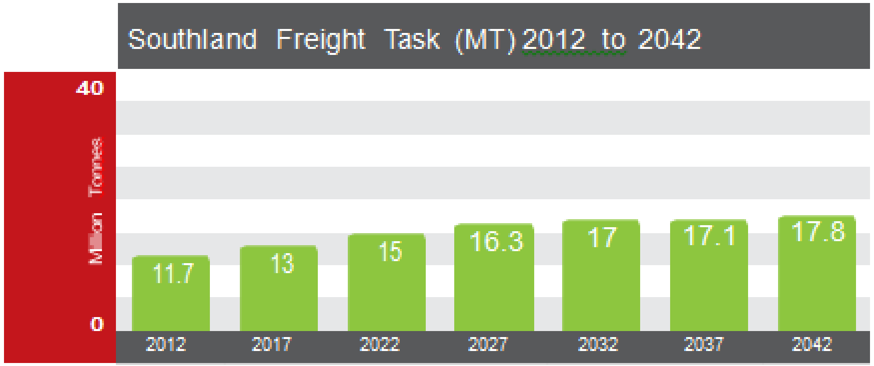
Otago

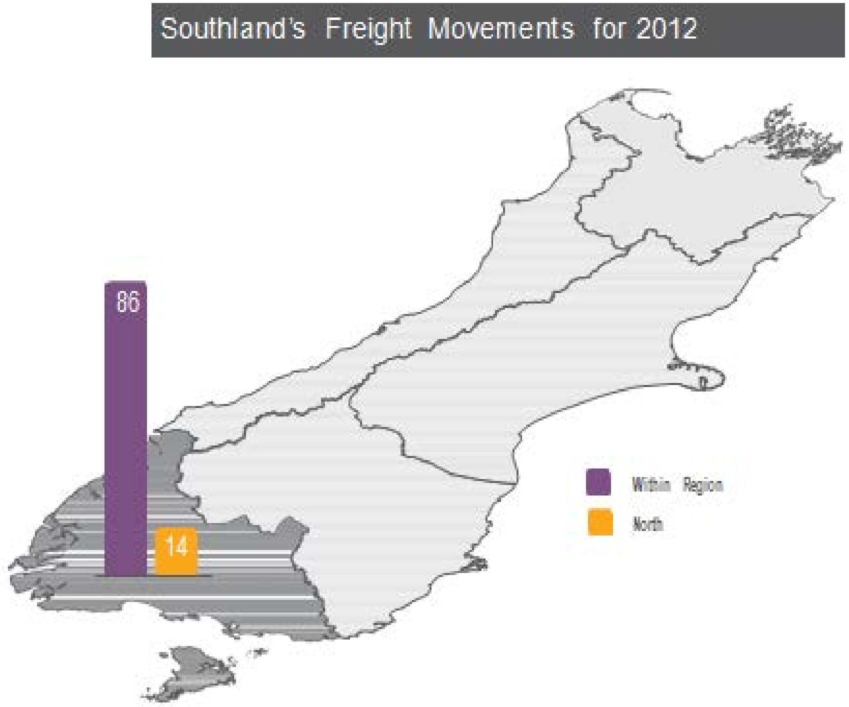

Otago Freight Task (MT) 2012 to 2042
40
Million Tonnes
0
10
11.5
13.5
14.3
15.1
15.4
16
2012
2017
2022
2027
2032
2037
2042

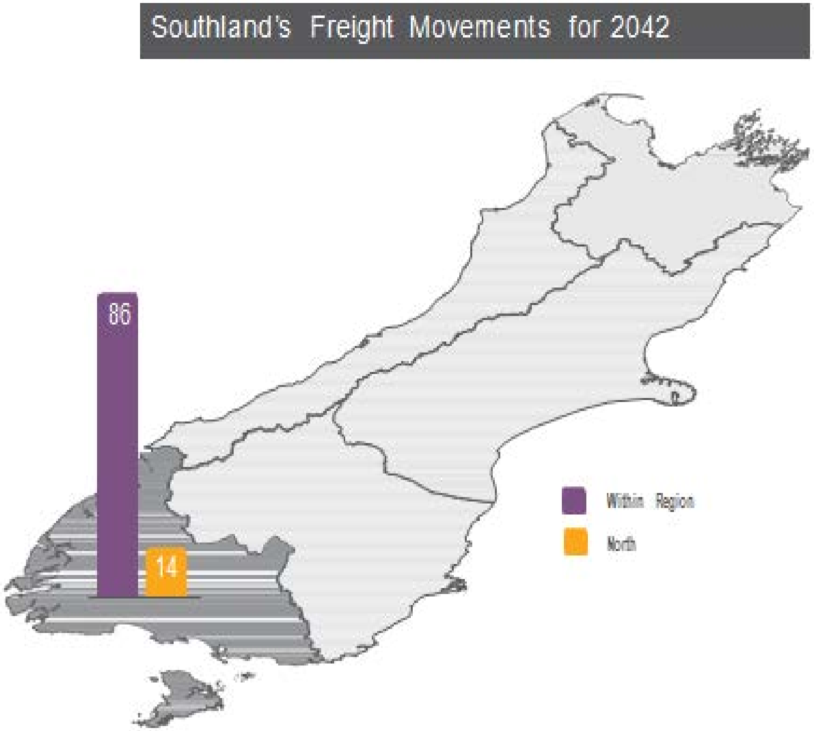

Otago's Freight Movements for 2012
84
9
6
1
Within Region
South
North
West


Otago's Freight Movements for 2042
86
7
6
1
Within Region
South
North
West

Southland


Southland Freight Task (MT) 2012 to 2042
40
0
Million Tonnes
11.7
13
15
16.3
17
17.1
17.8
2012
2017
2022
2027
2032
2037
2042


Southland's Freight Movements for 2012
86
14
Within Region
North


Southland's Freight Movements for 2042
86
14
Within Region
North

Emerging Discussion Points

47.7
million extra tonnes of freight will be carried in 2042

This means an additional
4,293
truck trips per day

Greatest growth in demand between
2012 and 2027

The majority of freight by weight travels within regions rather than across them

Canterbury dominates the freight task in the South Island and is forecast to continuing doing so

Demand is dominated by 12 commodities of which two are driven by export growth

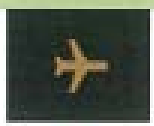
Canterbury Context

What is driving this demand? GCTS 30 yr assumptions

	2010	2041	% increase
Population	435,000	550,000	26%
Households	176,000	240,000	36%
Jobs	200,000	244,000	22%
Daily person trips	1,860,200	2,360,600	27%
Airport passengers	6m	10.5 - 12m	75-100%
Airport tonnage	120,000	400,000	233%
Port containers (TEU*)	290,000	1,500,000	417%
Coal tonnes	2.3m	5m	117%
Other tonnes	1,910,000	3,260,000	71%
External road flow	33,439	60,618	81%

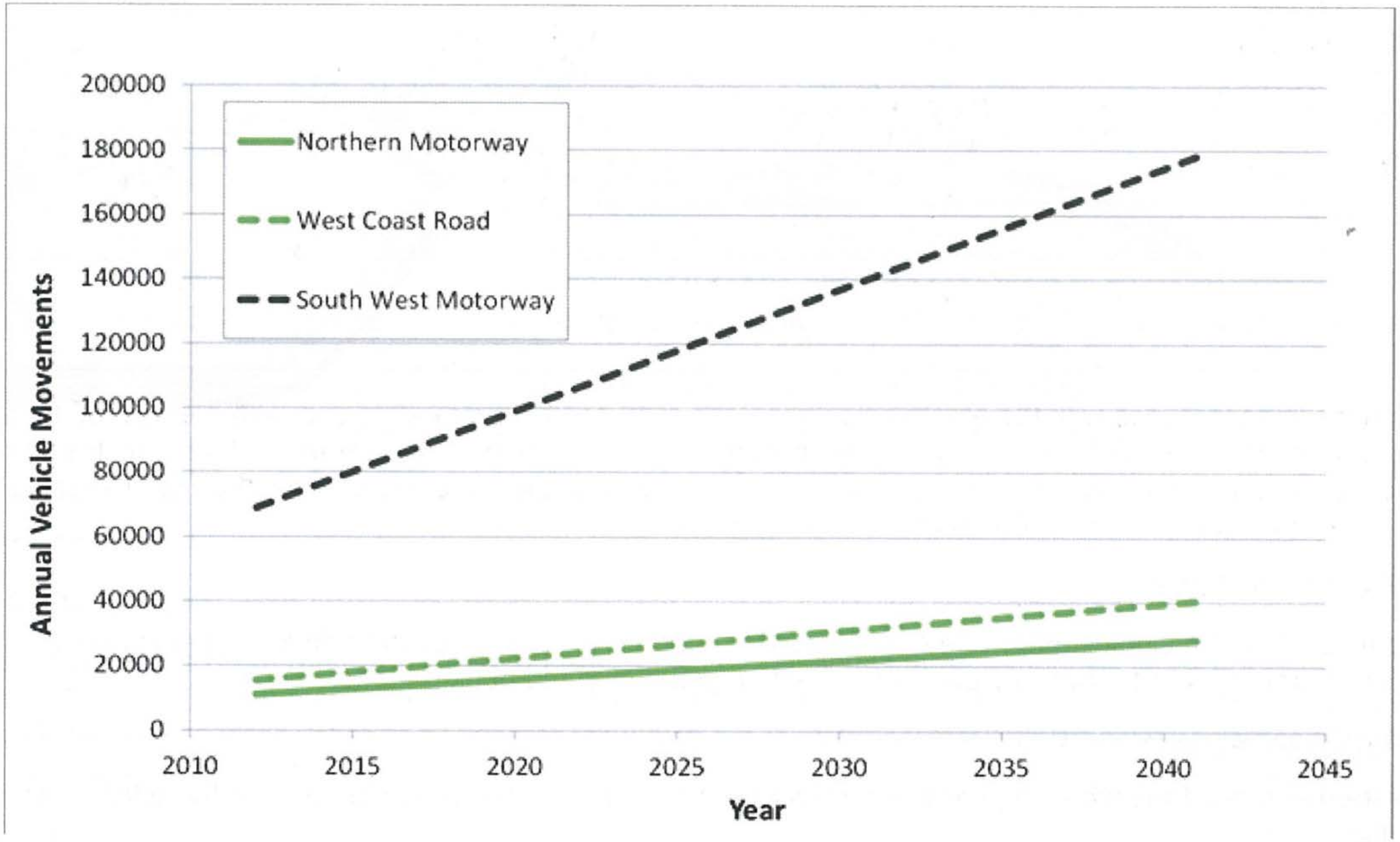
Canterbury Context

Volume and value of freight moved through Greater Christchurch by mode

Mode	Volume (tonnes)	% of total Volume	Value	% of total Value
	25,000	0.1%	$2.39bn	4.0%
	5,297,579	31.0%	$18.9bn	31.6%
	3,251,447	19.0%	$8.2bn	13.7%
	8,524,026	49.9%	$30.4bn	50.8%

Canterbury Context

Freight Vehicle Movements due to imports/exports key greater Christchurch roads



Canterbury Context

Canterbury Context

Import Distribution

Figure 7 - Import distribution by commodity and tonnage (2010 values)

Canterbury Context

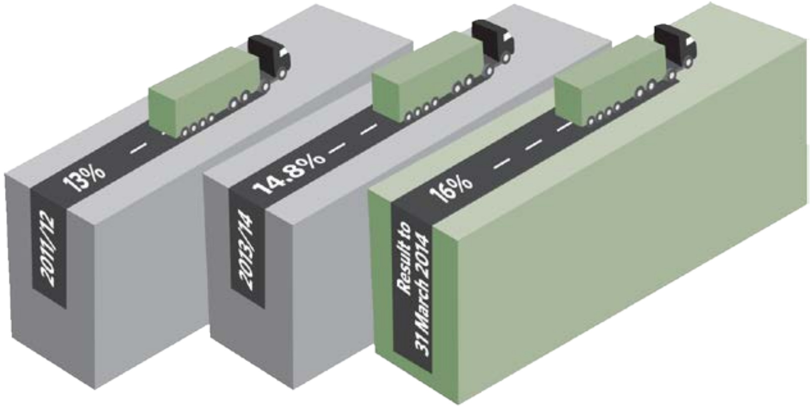
Export Distribution

Figure 6 - Export distribution by commodity and tonnage (2010 values)

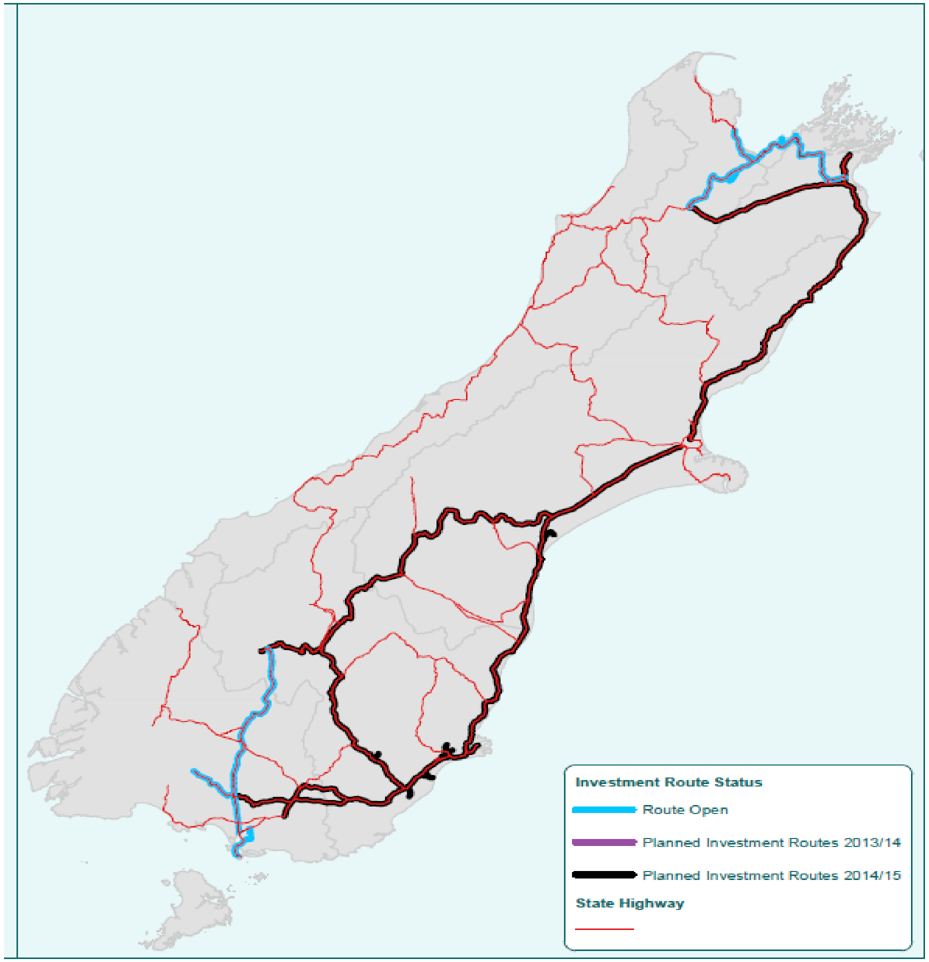
Christchurch RoNS - $800M + over 10 years

Moving More Freight on Fewer Trucks

% of travel by HPMV as a total of heavy vehicle kilometres travelled



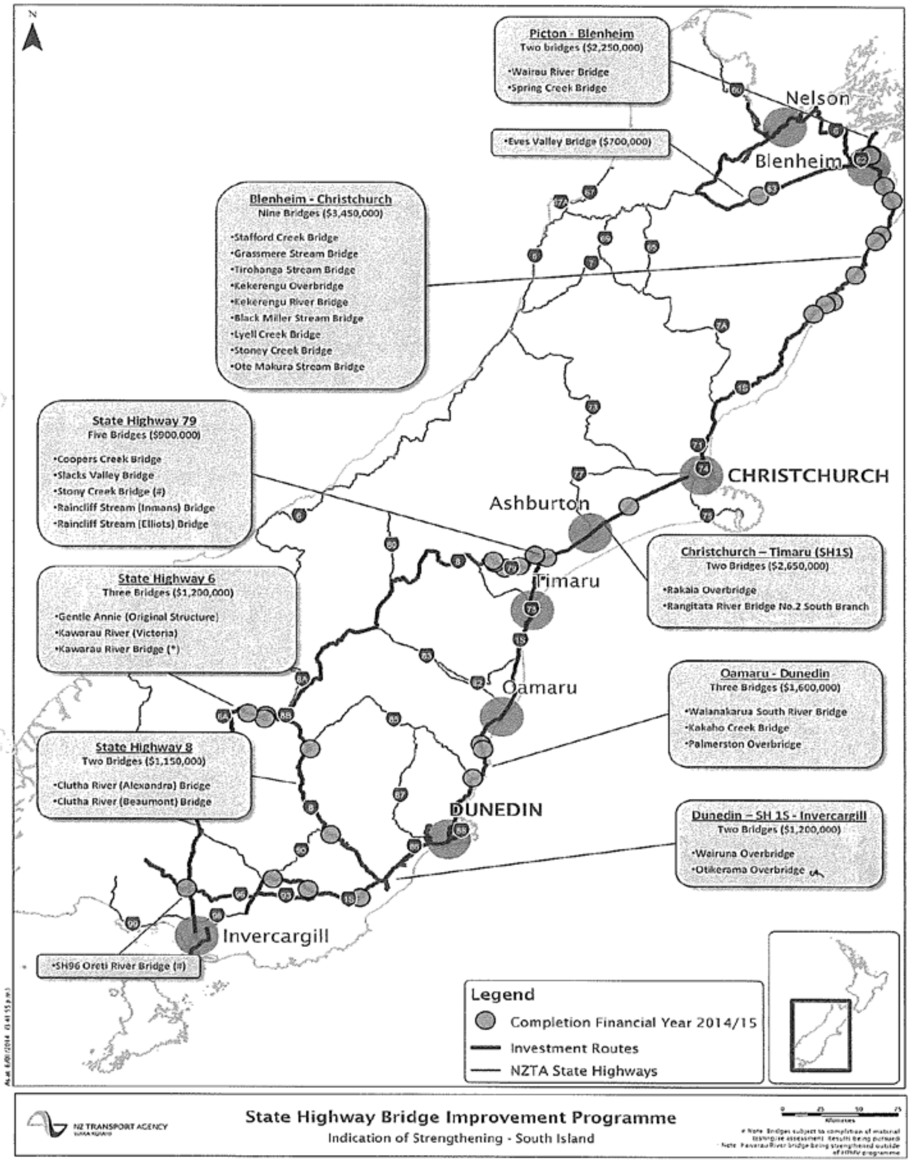
HPMV Investment Routes Programme



- SH1 – Picton to Edendale
- SH79 – Queenstown to Christchurch
- Part of the 'tranche one' rollout of routes to be upgraded to HPMV capability
- Pre approved HPMV routes have been agreed with a number of local authorities

HPMV Investment Routes Programme

- Strengthening of bridges is being progressed
- The timeframe for completing this is the end of June 2015



Greater Christchurch Transport Statement

Looking ahead, working together

A seamless transport system that:

- Supports earthquake recovery and the growth of Canterbury, and
- Connects people and places with a range of sustainable and affordable transport options.

This will be achieved through:

- Integrated decision-making on transport and land use, and
- Aligning our transport investments to get better value for money

Focused on:

- Port Access
- Public Transport
- Western Corridor/Airport
- Nth/Sth Access/Growth
- Central City

Freight Work Streams Underway

National Freight Demand Study – completed Feb 2014

Provides an understanding of the freight sector and forecasts of future activity

Lyttelton Access Project – completed June 2014

A technical evaluation of the factors affecting long-term Port access, while also seeking to ensure public and visitor access to the waterfront can be achieved

Greater Christchurch Freight Study – due for completion 2014

Forecasts freight growth for Greater Christchurch and explores options to improve resilience

Freight Work Streams Underway

Upper North Island Freight Story

Focussed on reducing the cost to do business in New Zealand through an Upper North Island lens

Central New Zealand Freight Story

A determination of the freight system's efficiency and identification of gaps to be addressed

South Island Freight Plan

Development of a shared vision of what we should be doing now and into the future to improve the way freight is moved across the South Island and beyond

Development of the South Island Freight Plan

Collaborative Approach

- Regional Workshops (October 2012 - March 2013)
- Governance Group (convened September 2013)
- Working Group (convened August 2014)

Emerging Issues

Key issues from regional meetings

Network Optimisation

Industry Profitability

Modal Choice & Options

Resilience

Travel & Route Availability Info

HPMV

Christchurch Rebuild

Sources: *Greater Christchurch Transport Statement, 2012*
The National Freight Demand Study, 2014
The South Island Freight Story – Research Report, 2014