

Upper North Island Supply Chain Strategy

Not just Port Study #21



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The Working Group of Experts



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Terms of Reference

Report to Ministers

- Review the Upper North Island Freight Supply Chain (including the other 20 studies)
- Take a view that is 30-50 years or longer
- Advise on the priorities for investment in Rail, Roads and Supporting Infrastructure
- Advise on the feasibility of moving Ports of Auckland, with serious consideration to be given to Northport
- Consider transport, land use, urban planning, national and regional economic growth and carbon emissions
- Consider the extent to which government needs to invest to achieve the outcomes
- Advise on the key actions to be taken over the next 5 years

Three Ports, Infrastructure, Economy



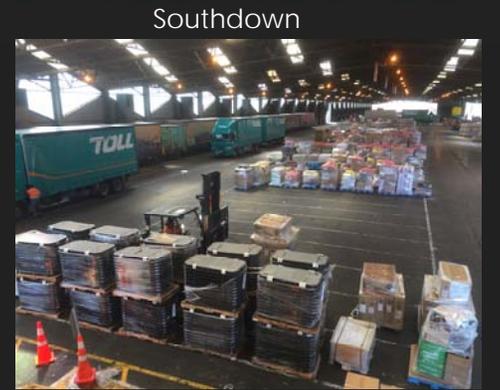
Auckland



Northport



Tauranga



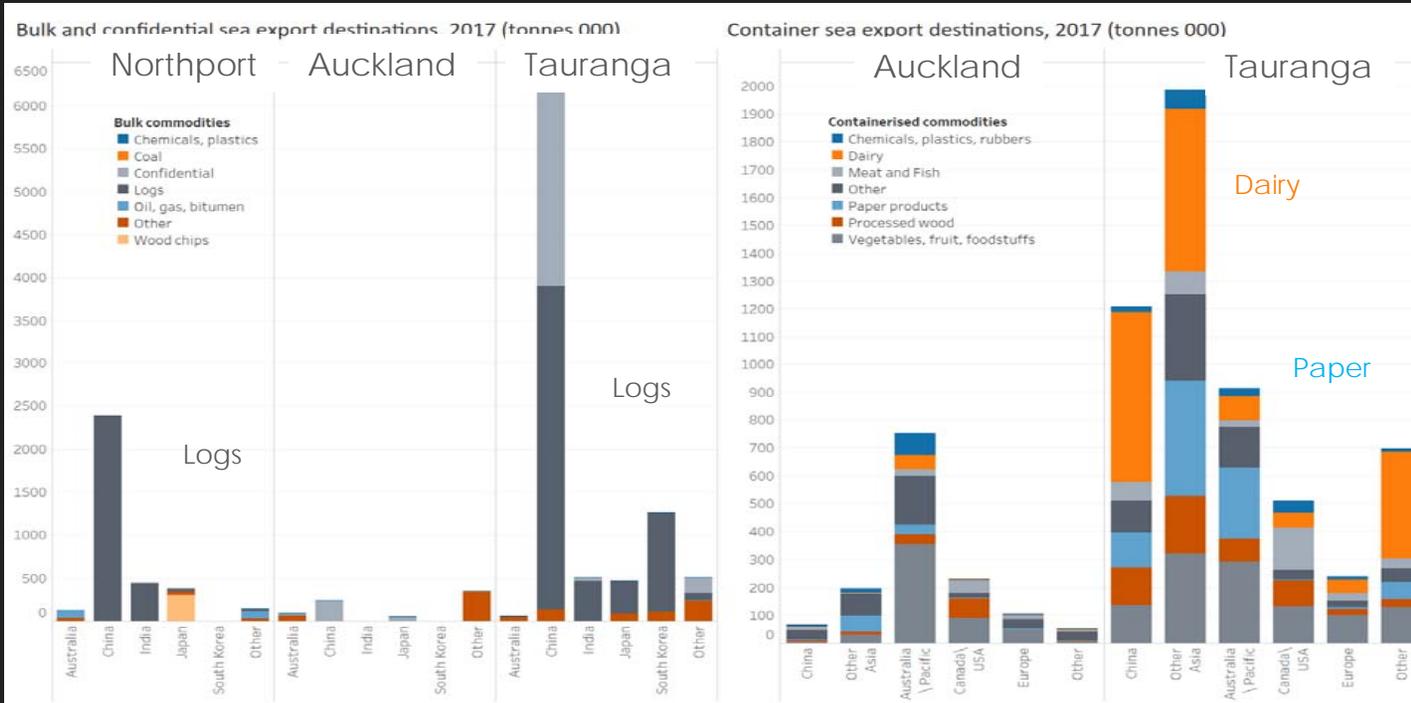
Southdown



North Auckland Line

Data – Exports

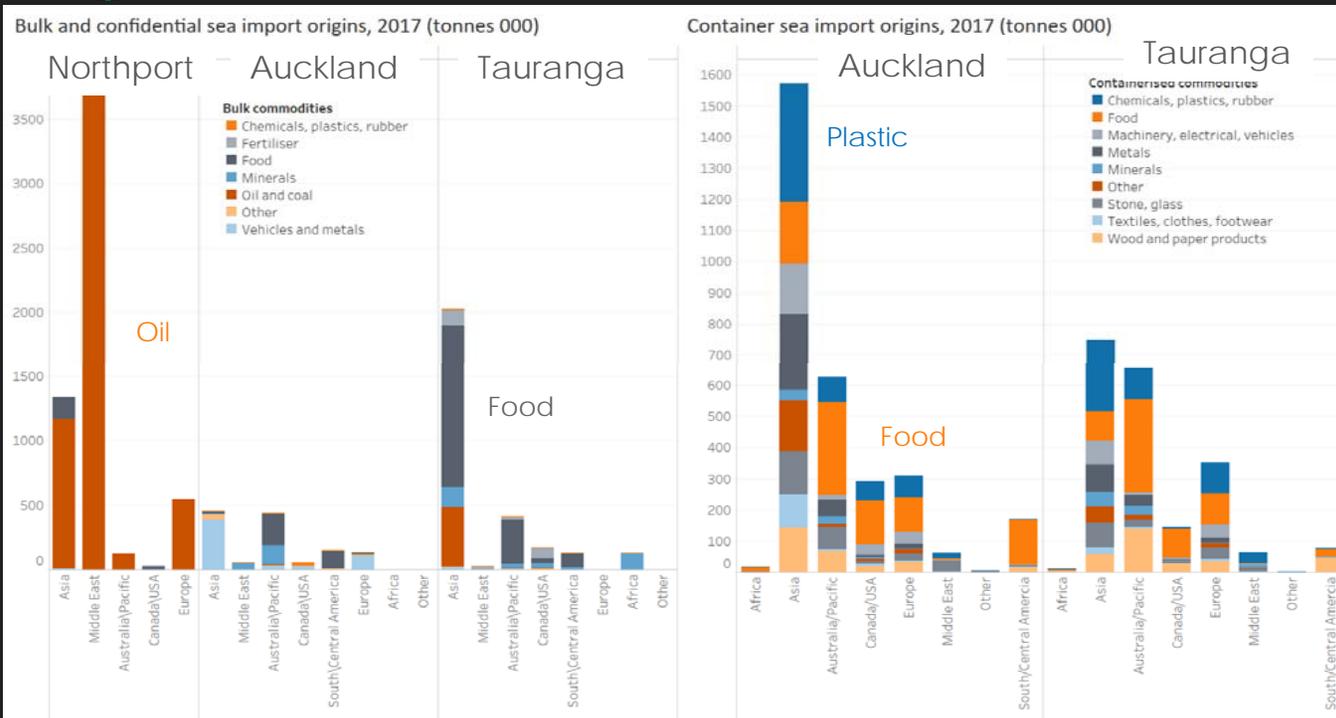
Bulk
(ktonnes)



Containers
(TEU)

Data – Imports

Bulk
(ktonnes)

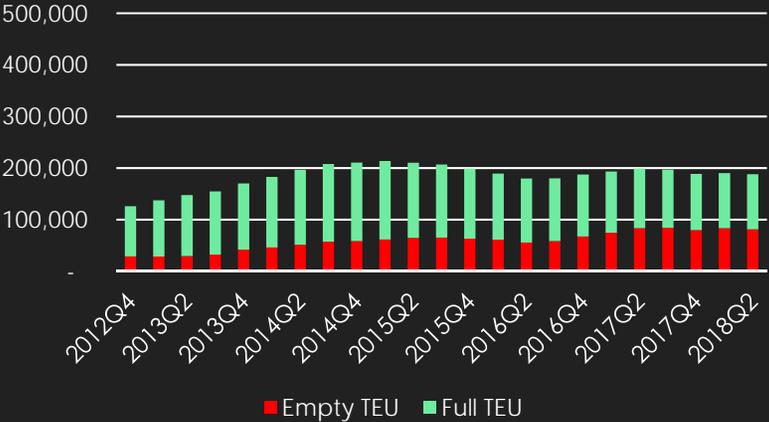


Containers
(TEU)

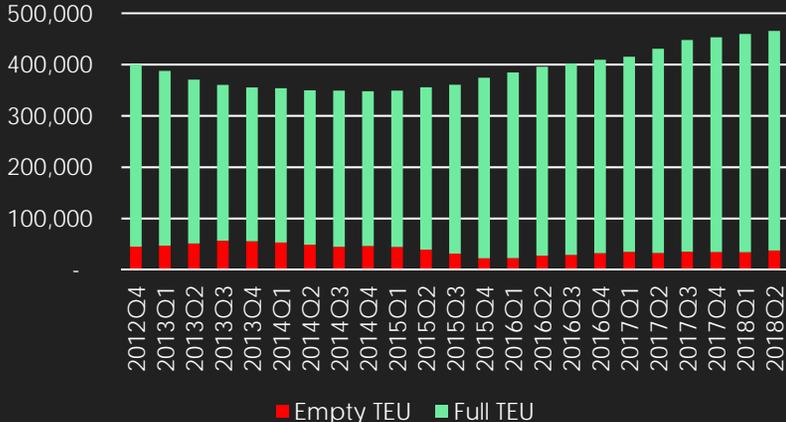
Data – Container Exports (TEU)

The Empties Imbalance

Ports of Auckland



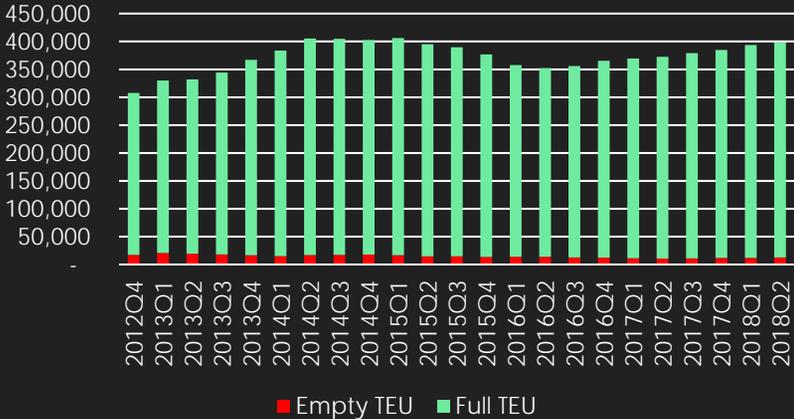
Port of Tauranga



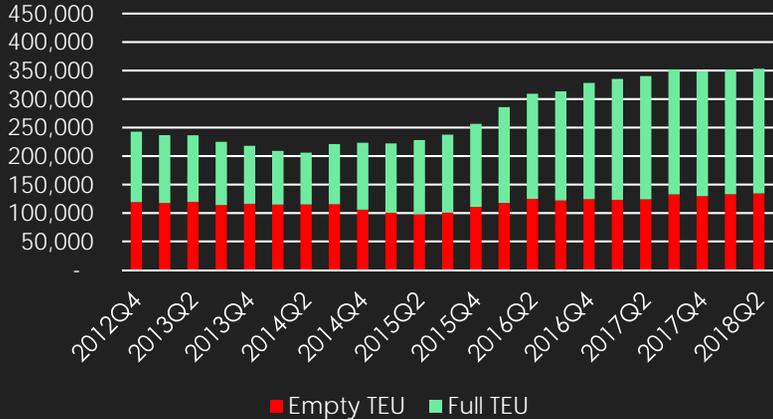
Data – Container Imports (TEU)

The Empties Imbalance

Ports of Auckland



Port of Tauranga



Three Ports, Three Councils, bit of a mess

Ports of Auckland

Wholly owned by Auckland Council

Ports of Auckland has 19.9% stake in MMH (owners of Northport).

Transfer of losses from other council companies to reduce Ports of Auckland tax, this option is not available to other ports.

Northport

Owned by Marsden Maritime Holdings Ltd

Shareholders: Northland Regional Council (53.6%) and Port of Auckland Ltd (19.9%).

Operated: Northport Limited, which is 50% owned by Port of Tauranga and 50% by MMH

Port of Tauranga

Owned 54% by the Bay of Plenty Regional Council and 46% by the public.

The Port of Tauranga group includes 50% ownership of Northport Ltd.

Process: Listen to Everyone

- Congestion and bottlenecks
- Inefficiencies of competition that benefits international shipping companies and wastes our resources
- No spare capacity, Infrastructure Constraints
- Critical truck driver shortage
- Northport not connected by rail
- Insufficient investment in rail and road for freight
- Need system view and benefit of NZ Inc.
- Make greater use of coastal shipping
- Fix the ownership model of the ports

Transition Engineering

My Expertise

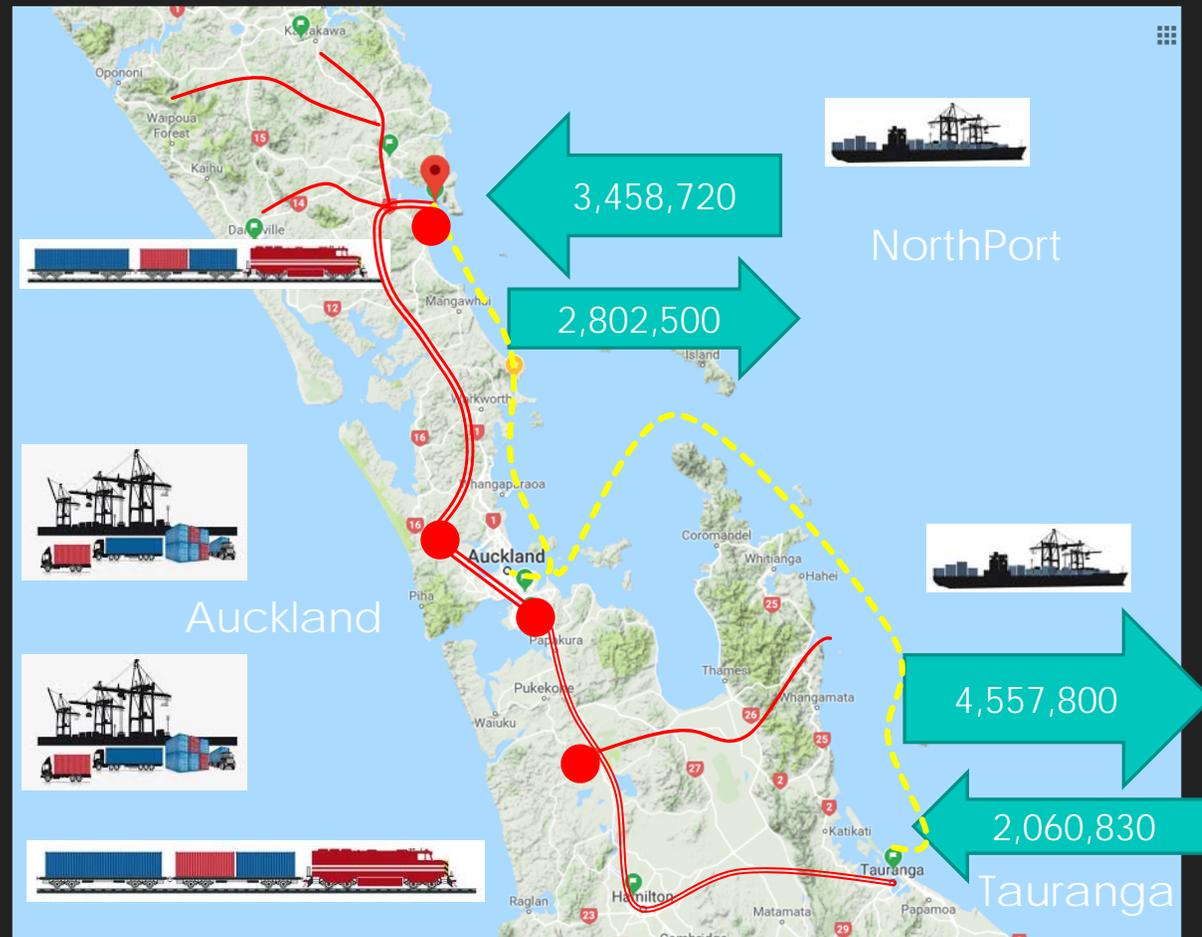
- How do we take the 30-50 year view?
- How do we consider carbon emissions reduction?
- How do we include community, culture and social values?
- How do we get the boys to play nice?

2070 What would work?

Northland
Thriving

National Electric
Rail Passenger &
Freight

80% Freight Rail &
Coastal Shipping



What would work - 2070?

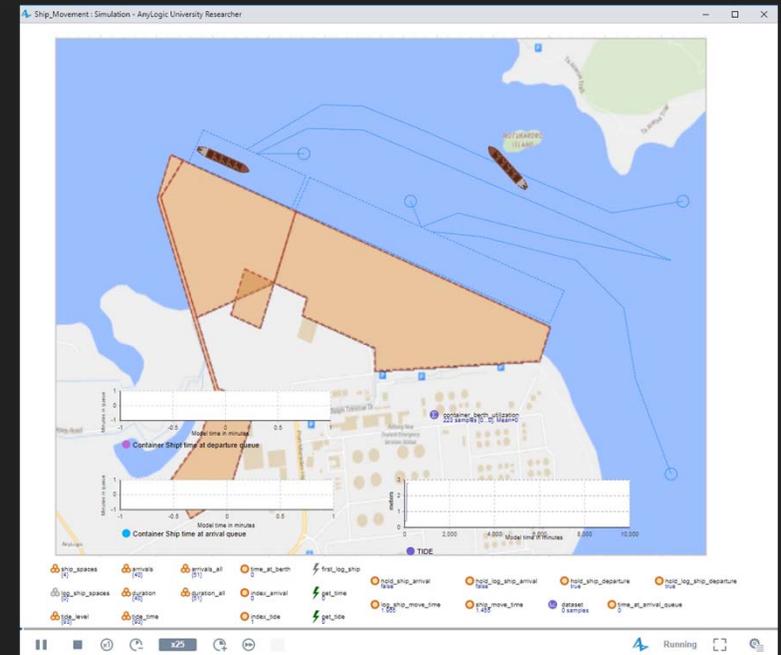


Re-Develop
Auckland Waterfront

Northport and Tauranga will serve

Agent Based Simulation Patricio Gallardo

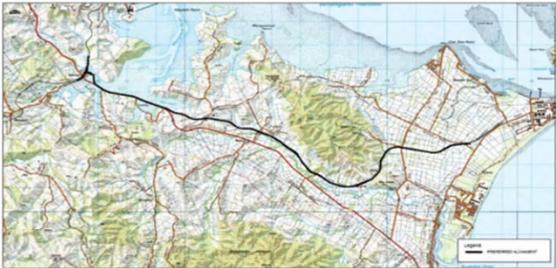
- Berth Utilization
- Entrance and Departure
- Service Windows equal to Auckland



Rail will make it all work in the long haul

Northport_to_Auckland : Simulation - AnyLogic University Researcher

Northport to Waimauku



The model simulates train movements between Northport and Waimauku. A rail link to Marsden Point has already been proposed. Rather than using routes from OSM, this model is based on a customized network that includes a rail connection to Marsden Point (<https://www.greaterauckland.org.nz/2018/03/09/northland-rail-part-2-marsden-point-line/>). It allows to study different interventions to improve the train frequency within this corridor. The model allows to assess the impact of increasing train speed or converting a specific section of of the network to double track. Moreover, the model delivers a potential timetable for train operations based on different strategies. The addition of a new terminal is not considered, yet, it is something that can be easily upgraded given the architecture of the background program. In the Business as Usual Scenario only 6 trains manage to do a roundtrip within the simulated time (1 day).

Train Speed (km/h)

20 30 60

Single (check) or Double (uncheck) track

- Northport to Maungaturoto
- Maungaturoto to Wellsford
- Wellsford to Helensville
- Helensville to Waimauku

▶ ■ x1 ↺ 🔍 ⏪ ⏩ ⏸

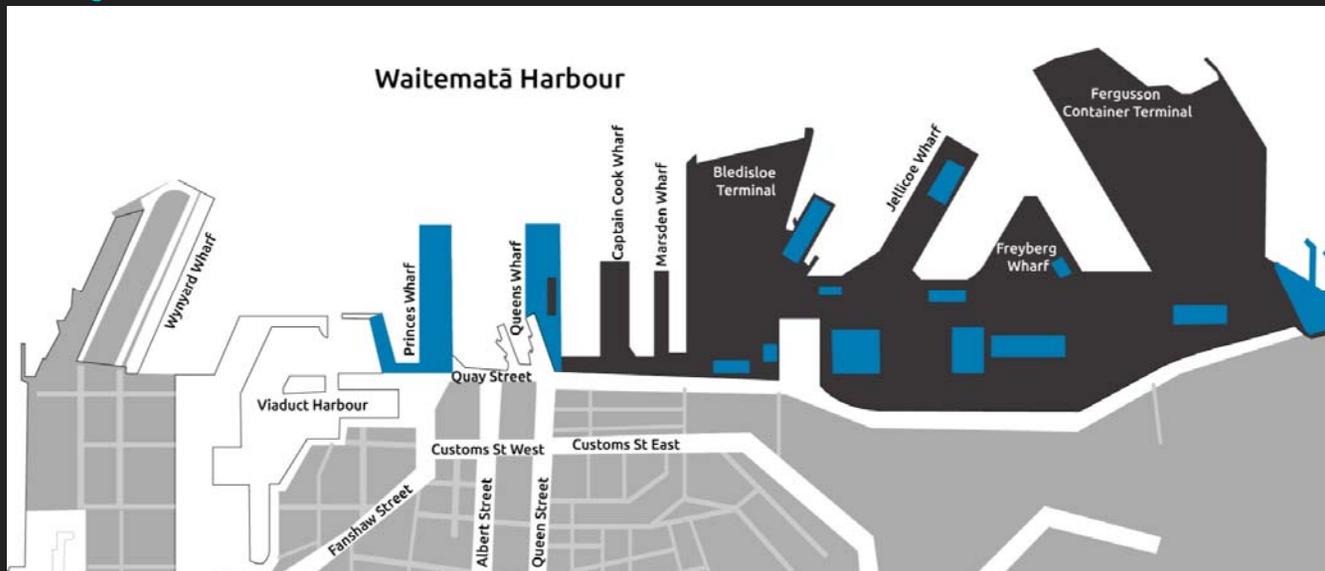
Idle

The Strategy

Bold Leadership

- Today – build the rail spur to Northport
- Today – engineering and planning for re-build of the North Auckland Line
- Today – engineering and planning for full capacity expansion of Northport
- Today – Government intervention in port ownership structure
- 5 Years – North West Auckland Freight hub and NAL
- 5 Years – Freight corridor through Auckland (Avondale)

1st Stage – Cars go from Bledisloe



Start the Urban Development Discussion

The Big Bold Vision

- New Zealand can have good things
- Today's political issues are irrelevant in 2070
- Political Leaders of Extraordinary Courage decide the future