



AIDE MEMOIRE

AECOM – Regional Intermodal Freight Terminals Working Paper

Date:	23 September 2020	Priority:	Low
Security classification:	In Confidence	Tracking number:	2021-0948

Information for Minister

Hon Shane Jones
Minister for Regional Economic Development

Hon Grant Robertson
Minister of Finance

Hon Phil Twyford
Minister of Transport

Hon David Parker
Minister for Trade and Export Growth

Contact for telephone discussion (if required)

Name	Position	Telephone	1st contact
Mark Jacobs	Director Regional Development	Privacy of natural persons	✓
Rose Austen-Falloon	Principal Advisor		

The following departments/agencies have been consulted

Ministry of Transport

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments

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Purpose

Given the number of applications received by the Provincial Growth Fund (PGF) for investment in intermodal hubs in the regions, the Provincial Development Unit (PDU) commissioned advice on the implications of investing in individual hubs. Choices about where to situate hubs have implications for:

- the locations hosting hubs and for other locations that may wish to develop hubs
- the value of existing hubs (those funded by the PGF and other existing hubs)
- the inter-regional flow of products
- associated activities undertaken at connected industrial parks (such as food processing and warehousing)
- the logistics and transport network across the country

This aide memoire outlines the key points of a working paper received in August 2020 on the regional economic benefits of intermodal hub investments:

AECOM (2020) Regional Intermodal Freight Terminals – Investment Assessment Framework. A working paper for the Provincial Growth Unit.

Intermodal Hubs in New Zealand

Overview

1. Intermodal hubs (also known as intermodal freight terminals) allow for the efficient transfers of freight to/from the network and between transport modes. The main types of intermodal hubs in New Zealand include: inland ports, log transfer yards, rail-enabled distribution and storage terminals, container transfer (CT) sites, and industrial parks with intermodal transfer facilities. Table 1 provides an overview of intermodal hubs in New Zealand.
2. With increasing congestion within road networks leading to our main ports, often located at the centre of urban areas, industry and stakeholders are looking at how intermodal hubs, associated industrial parks and rail can improve port access, efficiency and productivity across the logistics and transport network.
3. Because intermodal hubs sit at the interface of modes, they do not have a clear public funding source to support their wider public benefits. The AECOM working paper suggests how to maximise PGF and government investments where hubs are co-funded.
4. A strategic approach to hubs can also provide better alignment with New Zealand's land transport policy objectives as they are further developed and refined.

Maximising Commercial and Public Benefits from Hubs

5. Commercial benefits focus on supply chain efficiency and improved competitiveness between freight operators. For those businesses that do not have direct access to the rail network, hubs provide efficient access to rail services and coastal shipping.
6. Hubs require efficient first and/or last mile connections by road transport (either by public or private road), to manage the total cost of the freight trip (including the transfer between road to rail) and be cost competitive with the alternative of using road transport for the entire journey. Competition between freight operators using a hub can decrease the cost for consumers (including between road and rail).
7. The development of intermodal hubs can be integrated into district and regional plans, with industrial parks and businesses encouraged to develop adjacent to, or close by the terminal further increasing job opportunities and productivity gains.
8. Most hubs in regional areas operate on a commercial basis. While we expect continued commercial leadership of business cases, there are potentially wider public benefits.
9. The AECOM paper was written with a regional economic development focus appropriate to the PGF mandate. However, the wider transport network and environmental benefits of hubs' facilitation of mode shift were also recognised, including: reductions in emissions and congestion, reductions in road maintenance, congestion, noise, and improved safety and urban amenity.
10. These wider transport network public benefits and potential funding sources could benefit from further consideration given the GPS 2021 priority of *Improving Freight Connections*.
11. The national focus of some facilities noted in Table 1 suggests the need for strategic and planning consideration beyond regional boundaries. This can significantly reduce the establishment cost and transfer costs of moving freight on and off the rail network, increasing the hub's value proposition.
12. Table 1 Intermodal hubs hierarchy in New Zealand (* indicates PGF/IRG funding)

Type	Description	Examples	Comment
National strategic – Inter-Regional Import/Export (IMEX) domestic	Across multiple regions and posts handling high volumes /value of imported and export goods	Southdown Ruakura* (in development) CNI Palmerston North* (land acquisition underway)	These are critical elements of New Zealand's internationally facing logistics network.
Regional strategic – IMEX/domestic	Serving a regional port or national terminal across several regions with medium volume/value of freight	Kawerau* (in development) Fonterra cool-store a Horotiu and Mosgiel Midland Port (Rolleston), Port of Lyttleton MetroPort Christchurch (Rolleston to Ports of Timaru and Tauranga) Otiria* (in development)	KiwiRail have 17 Container Transfer sites A key issue is to ensure investments in individual hubs improve overall logistics effectiveness
Regional strategic – bulk	Serving a regional port or national terminal with high volumes of bulk commodity e.g. coal.	Ngakawau, Stockton Mine	
Sub-regional strategic – IMEX/domestic	Lower volume/value of freight within a region to a neighbouring region. Serving a regional port or national terminal	Rangiuru* (in development) Smaller KiwiRail CT eg Whangarei CentrePort, Whanganui*, New Plymouth, Marlborough, Palmerston North	
Sub regional – bulk	Lower volume/value of freight within a region to a neighbouring region, Serving a regional port or national terminal	Forestry hubs, Marton* (recently funded)	

PGF investment in intermodal hubs

13. The PDU has identified that a strategic approach to the network of intermodal hubs is a key mechanism for supporting the growth of the regions. As hub locality has an effect on the location of processing and related businesses, investment in well-integrated regional distribution hubs and systems, and associated PGF investment in primary production, food packing and processing capability within the regions, has the potential to lift the value accruing to the region.
14. The PGF has supported hub investigations and/or development at: Otiria, North West Auckland (investigation only as part of NAL business case), Wanganui through refurbishment of rail line, Ruakura roading (Hamilton), Kawerau road and rail, Gisborne (part of line investigation), Wairoa, Rangiuru roading (BOP), CNI Palmerston North land acquisition, Taranaki, Dannevirke (since cancelled) and Southland.
15. Some investment proposals to the PGF have not been funded because they were not viable as fully commercial investments or because they did not deliver sufficient benefits to the region.
16. No intermodal hubs were funded in the \$6.8 billion transport component of the New Zealand Upgrade Programme.
17. As part of the Covid Response and Recovery Fund process run by Crown Infrastructure Partners a number of intermodal hub projects were proposed by Kiwirail, port companies and commercial interests but were not funded. A log hub at Marton was funded.

Implications for government's transport investments

18. As freight volume increases and the way freight is moved changes, intermodal hubs may become more attractive to cargo owners and companies in terms of supply chain efficiency and mode shift benefits. These hubs may require public investment to become established. Before such investment is made, analysis is required to determine where these hubs will add value, and where they will not.
19. The operation of intermodal hubs requires long-term operational confidence in the rail network. This includes its ability to respond to growth in demand from increased services and/or longer trains. The development of intermodal hubs may require additional investment elsewhere in the rail network to cater for additional freight movements. If Ministers wish to undertake further work in this area, this would involve discussions with KiwiRail and NZTA.
20. Current funding and development models for the freight/transport networks are not focused on the contribution of intermodal hubs. At a high-level, funding hubs is not part of the "reliable and resilient" investment priorities for rail. It is however a future opportunity for consideration in the Rail Plan.
21. Because hubs sit at the interface of modes, they do not have a clear public funding source to support their wider public benefits. If Ministers wish to consider further funding, potential public funding sources could include:
 - **The Government Policy Statement on land transport (GPS) 2021** - has a priority of improving freight connections, but does not propose to fund freight hubs. This was a deliberate choice, given they are typically commercially funded.
 - **Road improvements activity classes** - connections of industrial sites into state highway or local road networks are not specifically prioritised, and as a result are typically required to be 100% commercially funded.
 - **Rail network activity class** - a new activity class in GPS 2021 is not available to support hubs as it is targeted towards track infrastructure to meet a "reliable and resilient" level of service. Hubs could however be considered under funding scenarios in out-years.

- **Coastal shipping activity class** - could potentially include enabling infrastructure within the scope of this new programme agreed in GPS 2021, which is yet to be determined.
22. Without a framework, government investments in intermodal hubs run the risk of suboptimal or duplicated investment across regions.
 23. The AECOM working paper notes that there are no operative freight plans in New Zealand. The priority for work by government agencies on freight strategy and plans is expected to be a consideration for incoming Ministers.
 24. Work by Ministry of Transport on a supply chain strategy is expected to be a consideration for incoming Transport and Rail Ministers. If this work is prioritised it would be expected to assess the role of freight hubs. Consideration of the national transport benefits and the role of hubs at a system and regional level would be useful.

Developing a framework for investment

25. The cost for hubs vary considerably with type, size and place (and the degree to which previous planning decisions have foreseen and facilitated the opportunity). Frequently the significant costs at risk are in ground works to limit environmental effects and construction of transport network links to transport networks at sufficient capability (e.g. axle weigh capacity of road and rail, overpasses). The opportunity cost for an underutilised or incorrectly sited facility, can be significant for potential users of the hub, such as processors as well as the freight operators.
26. To determine how and why intermodal hubs can generate value against the objectives of the government, the AECOM working paper proposes an investment framework to better understand and assess:
 - the relationship between different intermodal terminal proposals,
 - how they relate to the wider road, rail and maritime networks, and
 - how they interact with regional and national supply chains.
27. The framework has been developed to undertake an assessment of these impacts, compared against PGF investment objectives and broader land transport policy. Drawing on New Zealand and international experience, the framework provides two steps:
 - a. Questions to consider against PGF Assessment criteria
 - b. Comparative Assessment Matrix


Recommended next steps

28. A strategic approach to hubs can provide better alignment with New Zealand's land transport policy objectives as they are further developed and refined.
29. The PDU will work with Ministry of Transport to engage with regions to advise them about the role of freight hubs in regional economic development plans, using the framework proposed in the AECOM working paper.

Privacy of natural persons

Ben Dalton
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Annex

AECOM (2020) Regional Intermodal Freight Terminals –investment Assessment Framework working paper for the Provincial Growth Unit.



Regional
Intermodal Freight -