The Allen Consulting Group

Developing a National Freight Network Strategy

Perspectives of freight network customers

May 2010

Report to Infrastructure Australia

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Suggested citation for this report:

Allen Consulting Group 2010, *Developing a National Freight Network Strategy: Perspectives of freight network customers*.

Acknowledgments

The authors wish to acknowledge the participation of the 16 organisations we met with as part of this project. The perspectives provided by these stakeholders were as diverse as the industries they represented, with most having very different freight tasks. We are grateful for the time that representatives of these organisations set aside to discuss their issues with us.

Contents

Executive summary

The freight task facing Australian companies and other national organisations is immense. Goods and commodities are required to be moved significant distances, alongside numerous freight movements within cities over short distances.

Such is the importance of an efficient freight sector to Australia that freight transport is the transport priority for the Council of Australian Governments in 2010. Infrastructure Australia has been requested to pursue this priority by developing a *National Freight Network Strategy*.

Preliminary work has been undertaken to inform the development of the strategy. This includes a background paper considering the case for a strategy, potential definitions of the national freight network, a possible vision, objectives, principles, and a method for identifying priorities and governance arrangements.

To further the development of the strategy, consultations were undertaken with 16 diverse freight network customers. These consultations garnered advice on perceptions of the national freight network; actions required to establish a national network; how possible definitions of a national network align with freight tasks; and the proposed vision, objectives and underpinning principles of the strategy.

Freight network customers identified weaknesses in aspects of the freight network which, in their view, necessitate a wide-ranging strategy. Stakeholders also indicated that the freight network is more than physical infrastructure — it also includes regulatory and access regimes, monitoring systems and other 'soft infrastructure'.

The consulted freight customers operate diverse networks. Some organisations cover most of populated Australia, whereas others focus on specific regions or routes. Many networks fall only partly within proposed definitions of the national network, causing concern among stakeholders. It was felt that benefits associated with improvements to the national freight network would be limited without improvements to the remainder of the network.

Many stakeholders consider that a national freight network already exists, encompassing links between capital cities, along with corridors within cities and selected regional links. Rather, the core issue is network efficiency – noting that a small number of stakeholders consider that the network well-services their needs.

There are a number of implications for the development of the strategy from feedback received during the course of consultations. These include the need for long range planning and forecasting to support the development of the strategy, and an expectation of further consultation among freight network customers.

There was support for the proposed content of the strategy, including the proposed vision, objectives and underpinning principles. However, it was felt that the vision could be more aspirational and required further development.

Freight customers were concerned that the proposed governance arrangements too closely resembled the 'traditional' model for Commonwealth-State relations. It was considered that the traditional model could lead to inertia, and hamper improvements to the network. Accordingly, governance of both the development and implementation of the strategy will require careful consideration.

Chapter 1

Overview

1.1 Introduction

The Allen Consulting Group has been commissioned by Infrastructure Australia to consult with a small sample of freight customers on issues associated with the development of a *National Freight Network Strategy*. These consultations focussed on obtaining perspectives on issues raised in a previous background paper by Allen Consulting Group, outlining key concepts to potentially guide the development of a *National Freight Network Strategy*. In particular, the consultations sought freight customer perspectives on:

- perceptions of the national freight network;
- what actions are required to establish a national freight network;
- how possible definitions of a national network align with the freight task of different freight customers; and
- the proposed vision, objectives and underpinning principles of the *National Freight Network Strategy*.

1.2 Key findings

The consultations with freight network customers provided much useful feedback to inform development of a *National Freight Network Strategy*. In particular, stakeholders identified weaknesses in a number of aspects of the current freight network, in their view necessitating the development and implementation of a wide-ranging strategy. Those organisations consulted also indicated strongly that the freight network is much more than physical infrastructure. Rather, it also includes the regulatory and access regimes, monitoring systems and other 'soft infrastructure', all of which influence efficient freight movement.

The individual freight networks operated by customers consulted during this project were very diverse, reflecting the nature of the industries they operate within. Some organisations cover most of populated Australia, whereas others focus on specific regions or routes. Indeed, many organisational freight networks fell only partly within potential definitions of the national freight network detailed in the background paper. This issue was the cause of some concern among stakeholders — it was felt that benefits associated with improvements to the national freight network may be hampered if like-improvements were not also made to the remainder of the network. Accordingly, a wide ranging definition of the national freight network was preferred by many stakeholders, which would capture much of the total network.

Many of the organisations consulted consider that a national freight network already exists, encompassing links between capital cities, alongside corridors within cities and selected regional links. Rather, the core issue is making the network work more efficiently – noting that a small number of stakeholders considered that the current network well-serviced their needs.

There are a number of implications for the development of the strategy from feedback received during the course of consultations, which are explored in detail in Chapter 4. These include the need for long range planning and forecasting to support the development of the strategy, as well as the expectation among freight network customers that there will be further consultation.

There was general support of the proposed content of the *National Freight Network Strategy*, including the proposed vision, objectives and underpinning principles. However, it was felt that the vision could be more aspirational, and requires further development.

Freight network customers were concerned that the proposed governance arrangements for the strategy, too closely resembled the 'traditional' model for Commonwealth-State relations. In particular, it was considered that the traditional model may lead to inertia, and hamper improvements to the freight network. Accordingly, the governance of both the development and implementation of the strategy should be carefully considered.

1.3 Report structure

The remainder of this report is structured as follows:

- Chapter 2 provides insight into the characteristics of stakeholders consulted during the course of this project. This includes details of the freight task and associated freight networks of these organisations;
- Chapter 3 provides an overview of stakeholder perspectives on key concepts associated with the development of a *National Freight Network Strategy*, and the proposed vision, objectives and underpinning principles; and
- Chapter 4 discusses the implications of our findings for the development of the *National Freight Network Strategy*.

Chapter 2

Stakeholder characteristics

The nature of Australia's demography and geography — a population of 22 million people spread over a geographic area totalling 7.7 million square kilometres — means that businesses and other organisations operating across the country face an extensive and varied freight task. This includes:

- transporting manufacturing inputs from local or overseas sources to regional or metropolitan production facilities;
- transporting manufactured goods significant distances from the point of production to be consumed by local residents or other businesses; and
- transporting goods or commodities from the point of production or extraction, to be either processed domestically or exported.

This chapter provides an overview of the characteristics of organisations consulted in the course of this project and the process through which these stakeholders were identified.

2.1 Identifying relevant stakeholders

Two broad types of organisations were identified by Infrastructure Australia and the Allen Consulting Group from across a range of industries to be consulted as part of this project, namely:

- *participants* in the 'general freight' sector; and
- *users* of a freight network.

Stakeholder consultations were limited to Sydney, Melbourne and Canberra on pragmatic grounds. Despite consultations being based in south-eastern Australia, all consulted stakeholders had national supply and distribution networks. Given that the great majority of national head offices are in Victoria and New South Wales, few significant stakeholders were omitted from consultations on the basis of their location elsewhere.

Beyond a commercial focus, a major non-commercial user of the freight network, the Department of Defence, was also consulted. The freight network is also an important means of communication, providing for the movement of mail across Australia, and therefore, Australia Post was also consulted.

2.2 Stakeholder consultations

The details of the organisations consulted during the course of this project are set out in Table 2.1. These organisations represent a diverse range of industries, with many having extensive freight tasks encompassing much of Australia. In the sections below, we summarise the breadth of these organisations, comprising:

- the range of industries;
- the diversity of the freight tasks; and

- extent of the freight networks.

Industries

The consultation process was designed to capture the breadth of perspectives from freight customers. As such sixteen individual organisations from eleven industries were consulted, including:

- building and construction;
- communications;
- agriculture;
- diversified retail; and
- food and beverage.

Given its sizeable freight task, the motor vehicle manufacturing sector was also approached. However, a consultation was unable to be arranged due to the lack of availability within the project timeframes.

Freight tasks

The consultation process identified that users of the freight network have a vast array of different freight tasks. The diversity of freight tasks is largely driven by:

- the different activities of freight network users, comprising -
  - their position along the supply chain; and
  - location/dispersion of primary inputs.
- the nature of the products they produce and/or transport (e.g. whether the goods are durable, perishable or time-sensitive); and
- customer characteristics, including -
  - location; and
  - expectations and demands.

For example, the freight requirements of a business transporting bulk grain will differ significantly from that of a business transporting perishable chilled goods. In this case, timeliness and reliability are paramount for the movement of perishable chilled goods as delays or reliability problems (e.g. refrigeration failure) may result in substantial wastage. These factors, although important, are not as critical for the movement of bulk grain.

Role of customer expectations

In our consultations it was apparent that the different demands and expectations of end-consumers has a clear impact upon an organisations' freight task. This is particularly the case when an organisation is delivering goods to an 'external' customer, as opposed to an internal customer (e.g. supermarket chain delivering from company distribution centre to company stores). For example, organisations servicing external customers indicated that frequent and fast deliveries that allow for reduced on-site inventories is often a customer priority. This has significant implications for the way they conduct their freight operations.

Indeed, some stakeholders suggested that customer expectations of frequency and timeliness are increasing. Conversely, other organisations indicated that reliability was the major priority, influencing the nature of their freight task and thus modal choice.

Position in supply chain

The consultation process also identified that the position of an organisation along the supply chain strongly influences the freight task. Some organisations have vertically integrated supply chains and therefore are responsible for transporting products from raw produce through to the ultimate end user. Therefore their freight task involves many aspects of the freight network. Other organisations are only involved in exportation or importation and therefore movement of produce through the ports dominates their freight task. Further, some organisations only transport goods between other businesses, such that their freight task is constantly evolving to meet the needs of a relatively small number of key clients.

Extent of organisational freight networks

The Australian businesses we consulted with, have developed a complex range of freight networks specifically tailored to meet their individual freight task. These organisations use the available freight modes, nodes and edges in combination to establish freight networks that most efficiently and cost effectively achieve their specific freight needs. Further, the consultations indicated that organisations have been flexible and creative in establishing specific freight networks to service their freight demands.

A number of the organisations consulted have freight networks that practically cover the whole of Australia, spanning — but not limited to — the major population centres. Others were only responsible for moving goods along a specific set of routes, such as from grain producing regions to port and subsequent export (see Table 2.1 below).

There is also significant variation in the distribution strategies or arrangements being implemented. For example, some organisations operate with large distribution centres located on the metropolitan fringe, while others transport produce directly from manufacturing plant to final consumer. Many firms adopt different strategies for different product lines.

There is also diversity between freight networks in terms of ownership of freight assets — with some organisations owning a large proportion of their freight fleets, while others largely engage in contractual arrangements with specialist freight and logistics companies.

The consultation process also identified a number of similarities across freight networks. Many businesses indicated a preference to use local distribution contractors in Western Australia, due to the limited scale of their operations in that State. Further, most organisations indicated that the lack of reliability of Australia's rail networks a prohibiting factor, particularly for those businesses distributing perishable goods or those requiring express, time-sensitive and/or highly reliable freight services. Separately, timeliness was raised as an issue counting against the use of rail.

Table 2.1

STAKEHOLDER CONSULTATIONS: SUMMARY CHARACTERISTICS OF FREIGHT CUSTOMERS[a]

Organisation	Industry	Freight task	Freight network	Freight modes[b]			
				Road	Rail	Sea	Air
Woolworths	Diversified retail	Two facets to freight task: • inbound — transfer of goods from producers to DCs; and • outbound — transfer of goods from DCs to nearly 3,000 stores. Most (70%) of domestically sourced goods are from Sydney and Melbourne. Majority of fresh produce (60%) is moved directly from growers to DCs (bypassing produce markets).	Majority of movements are in metropolitan areas from DCs to stores. Most are located in eastern and south-eastern Australia. Vast majority of movements are by road. Major rail legs include: • Brisbane to Mackay; and • Adelaide to Darwin. Shipping is used for imported goods, and for movement of goods into and out of Tasmania.	✓	✓	✓	
Coles	Diversified retail	Very similar freight task to Woolworths above. Transport hubs and consolidation processes are becoming increasingly important in major production locations.	Similar freight network to Woolworths. Vast majority of movements are by road. Major rail legs include: • north of Brisbane; • Melbourne – Perth; and • Adelaide – Darwin. Uses shipping for imported goods. Has considered coastal shipping for Melbourne to Perth, but not frequent or reliable enough. Coles is also establishing consolidation centres for fresh produce in regional locations.	✓	✓	✓	
Australia Post	Communications – post and parcel	Very large freight task spanning all metropolitan and regional areas of Australia. Freight task comprises pick up and delivery of mail from numerous points including, 10 million delivery points, 16,000 post boxes, 2,500 retail points and 8 processing centres. Items for delivery are frequently non-uniform	Have major processing plants in all capital cities. Local delivery vehicles operate out of major distribution points. Major interstate movement by truck and air (for express post) Major rail links include: • Adelaide – Perth	✓	✓	✓	✓

Organisation	Industry	Freight task	Freight network	Freight modes[b]			
				Road	Rail	Sea	Air
		in weight, shape and size.	• Adelaide – Darwin				
TNT Express	Communications – parcels and freight	Express distribution of goods either within the supply chain or from producer to end consumer. Operates in all regions of Australia and also internationally.	Freight network caters for express point to point movements. Uses both rail and road for transcontinental freight movements. Road used for majority of movements (rail either not fast or frequent enough) Local delivery vehicles operate out of major distribution points.	✓	✓	✓	✓
AWB Limited	Diversified agribusiness	Transport grain from the farm-gate to domestic processing plants or to ports for export. Land transport grain long distances (200-500km) Export mainly through Port of Melbourne	Transport mostly using rail, with increasing use of road. Grain export may be via shipping containers, or in bulk. Network comprises approximately 700 upcountry storage sites.	✓	✓	✓	
GrainCorp	Diversified grains and logistics	Move grain from major farming areas in NSW, Queensland and Victoria to processing plants or to port for export. Move on average 10 million tonnes of grain, with half each for export and import respectively.	Use rail for the base load but also use road when rail lines are at capacity. Operate small parts of the east coast rail network. Have invested heavily at some large upstream rail nodes to increase loading capacity.	✓	✓		
National Foods	Food and beverage	Transport milk, juice, processed dairy products and cheese from production facilities to major supermarkets (50% freight task) as well as individual delivery routes (50% freight task). Milk distribution is largely State based. Other produce is distributed nationally.	Operate with large DCs in each of the major capital cities. Use predominantly truck freight.	✓			
Unilever Streets	Ice cream and confections	Distribute frozen goods from manufacturing plant to retail consumers including major supermarkets (60 % market share) and individual delivery routes (corner store, service station, vending machines, etc)	Major production site is in Sydney with major distribution centres in Melbourne, Adelaide, Brisbane, and Perth Movement is by road along the eastern sea board. Major rail legs include: • Melbourne to Perth; and • Adelaide to Darwin.	✓	✓	✓	

Organisation	Industry	Freight task	Freight network	Freight modes[b]			
				Road	Rail	Sea	Air
			Have used coastal shipping from Melbourne to Western Australia in past. Use local, small scale distribution services for movements within Western Australia				
Fosters Group	Alcoholic beverages	Freight movement is outsourced, comprising. movements from key production facilities to customers. Production facilities located in: • Melbourne; • Brisbane; • Hobart; and • Wine growing regions. Distribute to over 25,000 retail customers across Australia.	Move freight using road (75%), rail (10%) and coastal shipping (15%) Applies a hub and spoke model to distribution. Distribution is concentrated in New South Wales and Queensland Also transport produce from production facility straight to end user	✓	✓	✓	
McDonalds	Restaurant chain	Distribute mix of frozen, chilled and ambient temperature produce from distribution centres to restaurants across Australia. Concentrated along the east coast. Also import a small proportion of inputs (e.g. toys) and export produce to NZ.	Freight network determined by restaurant location (covers most of populated Australia). Use road (mostly), rail and sea. Road train between Adelaide and Darwin stopping in Alice Springs. Use rail freight from Sydney to Perth (concerned with reliability).	✓	✓	✓	
Amcor	Paper and cardboard	Distribute from six core business units to end use customers	Freight movement can be categorised as: metro, intrastate, interstate and line haul capital to capital Majority of movement is by road (70%). Also use some rail and sea freight Have shifted from rail to sea freight for transcontinental freight movement.	✓	✓	✓	
Department of Defence, Joint Logistics Command	National defence	Freight task is dominated by movement of equipment and supplies from procurement hubs in south east Australia to major bases (e.g. Darwin and Townsville) and overseas deployments.	Currently operate at 24 sites, with 201 warehouses Major nodes include: • Moorebank (Sydney) for middle east; • Wallangarra (Brisbane) for Solomon Islands; and	✓	✓	✓	✓

Organisation	Industry	Freight task	Freight network	Freight modes[b]			
				Road	Rail	Sea	Air
			• Darwin for East Timor. Significant upgrades are planned for the network including: • $30 m for Townsville port facility; and • $20 m for Darwin port facility.				
Boral	Building materials	Transport bulk commodities from factory to consumers located mostly in metro and outer metro regions.	Freight movements dominated by truck. Use rail freight for long haul. Little to no interaction with ports.	✓	✓		
Incitec Pivot Limited	Fertiliser and explosives	Key task is moving fertiliser from near Mt Isa to regional centres. Operate with a number of service centers across Australia Move over 1 million tonnes per annum.	Network is based around manufacturing facilities, supplying east and south east Australia. No substantive movements go through major cities. Operate using rail, road and coastal shipping (for large tonnage).	✓	✓	✓	
Caltex	Oil and petroleum products	Movement of petroleum from refineries and as imports through ports to petrol retailers.	Mostly transported by truck. Also use pipeline for some transportation, for example Sydney to Newcastle. Would use more pipelines if they were available.	✓	✓	✓	
Pacific Brands	Clothing	Distribute clothing to retail customers across Australia. Mainly distributing imported products (90%) from port to DCs then onto retail consumers.	Import goods mainly through Brisbane and Melbourne. Domestically, goods distributed mainly via truck. Also utilise a little coastal shipping and rail.	✓	✓	✓	

Note: [a] The descriptions of the freight tasks and network detailed in Table 2.1 are summaries based largely upon verbal advice provided by stakeholders, and have not been validated by stakeholders.
[b] Only freight modes used by the organisation itself are detailed. Modes that may be used in the upstream supply chain are not detailed.

Source: Allen Consulting Group

Chapter 3

Stakeholder perspectives

This chapter provides an overview of stakeholder perspectives identified during the course of consultations. In most cases, these discussions were based on a set of key questions and issues raised in a discussion paper circulated to stakeholders prior to meetings (Appendix A). In particular, we summarise in this chapter stakeholder views on:

- the quality of the existing freight network;
- concepts and definitions that underpin the idea of a *national freight network*;
- accountability for the development and implementation of the strategy;
- the content of the *National Freight Network Strategy*; and
- the evolving operating environment.

3.1 Quality of the existing freight network

The organisations consulted had a range of views regarding the quality of current freight networks. While a few organisations could not fault the current network and believed it catered well to their freight needs, most organisations raised a number of concerns regarding the quality of the existing network. In particular, concerns were raised regarding the impact that impediments and inefficiencies within the freight network were having on the cost of freight transport.

Major freight network quality concerns or impediments identified throughout the consultations can be categorised as:

- poor reliability of the existing rail network;
- lack of consistency in regulation across the network; and
- congestion in metropolitan areas.

These key concerns and impediments are discussed in more detail below.

Poor reliability of the existing rail network

Throughout the consultations, there was a general consensus that the limited reliability of the existing rail network, along with its inferior timeliness relative to road, was an impediment to its use. In particular, the inability to guarantee delivery times and the unpredictable effects of infrastructure quality (such as frequent de-railing and imposed speed restrictions) rendered the network unappealing to those organisations demanding reliability in their use of the freight network. In addition, inefficiencies in inter-modal transfers that further increased the cost of long haul rail freight, compared to road, were also identified as a disincentive for its use.

Capacity constraints were raised as a concern by those organisations that rely heavily on the rail network. Further, it was perceived that better management of the existing network could improve the overall efficiency of the system.

Most organisations considered that if these key impediments could be removed, rail freight could play a much larger role in their freight network.

Lack of consistency in regulation across the network

Many organisations that were consulted had national freight operations. As such some were acutely aware of the fragmentation and inconsistencies in the rules and regulations governing the use of freight infrastructure. This was raised as a key impediment to the efficiency and quality of the freight network.

Lack of consistency between Australian and international standards, between the various State and Territory governments and between State and local governments were all discussed. Key regulatory inconsistencies that were raised during the course of consultations include:

- freight pallet sizes, particularly between international and Australian practice;
- axle loads;
- railway gauges;
- occupational health and safety regulations;
- regulations that govern the transportation of dangerous goods;
- access for B-double and B-triple vehicles; and
- urban planning.

In general, organisations considered that a *National Freight Network Strategy* must aim for consistency of the rules that govern the use of the freight network (see Section 3.5 below).

Congestion in metropolitan regions

Many organisations raised congestion in metropolitan areas, particularly Melbourne and Sydney, as a key impediment to the efficient operation of the national freight network. Peak hour commuter traffic and poor network management were raised as the most common causes of congestion. Further, some organisations noted that the lack of a functional public transport system with sufficient capacity to be the key cause of road congestion.

Some organisations also identified that the way the freight system is currently managed is further contributing to metropolitan congestion. For example, restrictions and curfews that reduce the period in which freight can be delivered increases freight traffic during peak periods. Similarly, some organisations were finding that their customers and general business demands required more peak hour deliveries. Finally, a small number of organisations raised concerns regarding the availability and cost of supplying skilled freight labour, 24 hours a day.

Almost all those consulted identified the range of potential non-infrastructure related solutions to metropolitan congestion. For example, some organisations discussed the potential for demand-side solutions such as access and congestion pricing. Other organisations discussed the potential to allocate specific corridors of the network to freight at particular times of the day.

Other quality concerns or impediments

Throughout the consultations a range of other quality concerns were also identified, largely relating to sea-based aspects of a lack of storage space at major ports (such as for grain), and the reliability and in frequency of coastal shipping.

3.2 Concepts and definitions

How to define 'the freight network'

During the course of consultations, stakeholder views were sought on the proposed definition of a freight network as a 'cohesive set of infrastructure links connecting concentrations of people or economic activity centres'. The three main characteristics of a freight network — interoperability, interconnectivity and intermodality — were also discussed.[1]

There was broad agreement with this definition and no stakeholders disputed the three definitions that we put forward. A small number of stakeholders did however elaborate on particular elements that were of interest to them.

First, some stakeholders pointed out that the notion of inter-connectivity needs to extend beyond physical linkages to also include a coherent (if not seamless) system of administration, competition, regulation, pricing, access and other arrangements that affect how infrastructure is used. One other stakeholder provided the example of information flows that would allow the freight task to be tracked, monitored and even forecasted as it moves across the network.

Second, some held the view that of the three characteristics put forward, intermodality was of primary importance and that a freight network strategy has to provide flexibility in the method of freight movement. A small minority extended this argument one step further, emphasising the value of having options when it comes to decisions on modal choice. These parties also appear to support the concept of 'multi-modality' whereby modes were not only connected but also substitutable within the network, such that the choice of mode would be based purely on time and economic factors.

Some organisations raised the higher order issues of whether a national freight network could be considered in isolation from the other transport elements that overlap and interact with freight movements including passenger transport, infrastructure congestions, land-use planning and environmental policies.

As a final point, a number of organisations felt that it was important that the strategy not limit itself to thinking of the freight network as solely physical infrastructure. Rather, the freight network should also be conceived as including 'soft' infrastructure influencing network operations, such as pricing, access and regulatory regimes, and even data sharing and monitoring of the network.

[1] To assist the ongoing development of the National Freight Network Strategy, these concepts are elaborated upon in Appendix B.

How to define 'national'

The four potential foci of the elements of the freight network that might fall within the scope of a *national* strategy were also discussed – constitutional, nodal, impact and functional. Most organisations preferred to define the scope of the national network based on impact. Many reacted adversely to the suggestion of a constitutional focus, fearing that this would simply perpetuate fragmentation within and across the network. The function focus was not widely supported, as it would leave out key facets of the freight task of individual organisations.

Firstly as discussed in the section above, a large number of stakeholders were emphatic that regardless of the approach taken to the overall strategy, the national network must capture the 'first and last mile'. This concern meant that the impact focus was preferred, as the first and last mile is typically the most challenging, inefficient and most costly. Several organisations pointed to the high costs of urban congestion and the high levels of waste and lost productivity associated with moving goods in and out of metropolitan areas. For example, one firm indicated that 40 per cent of the cost of their Melbourne-Sydney route was expended within metropolitan area boundaries (representing approximately 10 per cent of the distance).

A large number of firms appeared to hold the view that a strategy omitting the first and last mile would fail to resolve the most critical issues across the whole national network.

Secondly, some firms did not object to a nodal focus per se. Rather, they felt there was a need to establish more links between the established network running between Melbourne, Sydney and Brisbane, and the more isolated areas and population centres spread across the rest of the country. Furthermore, a number of organisations also saw the need to have better nodal connections along the eastern seaboard, including regional centres.

Lastly some organisations pointed out that although the functional focus applied to most sectors, it was likely to omit important connections within the agriculture sector, in particular the first mile starting at the farm gate. In this regard, they considered an impact focus more appropriate and less likely to leave growers out of the supply chain.

3.3 Accountability for the National Freight Network Strategy

Governance

Stakeholders overwhelmingly supported a Commonwealth body such as Infrastructure Australia leading the development of the *National Freight Network Strategy*. In part, stakeholders felt that in the absence of federal leadership, the States would be too distracted by local issues, diluting the focus upon achieving nationwide improvements.

Most stakeholders expressed concern that the multi-layered governance arrangements proposed would undermine the potential effectiveness of the *National Freight Network Strategy*. One stakeholder even pointed out that the Standing Committee on Transport was missing from the proposed structure and that this and every other layer would lead to 'watered-down' policy and provide opportunities for the States to avoid ceding powers to the Commonwealth.

Most organisations expressed a strong preference for the body charged with the development of a national strategy to have:

- *independence* – to conduct a "warts and all" examination of the network and its gaps and impediments;
- *power and authority* – to make strong recommendations, to make decisions, to follow-through and generally "to get things done" in a timely manner; and
- *funding responsibility* – to support these decisions by making real investments.

Most stakeholders recognised the need for the Strategy's governing body to be independent, but many also emphasised the need for obtaining industry input throughout the development of the strategy. At the very minimum, it was considered that this input be sought through the industry peak bodies. One organisation suggested that Infrastructure Australia, with industry representation at the board level, could be the interface for stakeholder consultations. That being said, one or two organisations wanted an even higher level on industry inclusion, with peak bodies having a seat at the table.

One key area of contention among some stakeholders was whether or not the National Transport Commission was best placed to develop and implement the strategy. One or two organisations were very sceptical of whether the proposed governance arrangements would work and be able to deliver outcomes within the set timeframes. One organisation saw this as being "too big" a role for the NTC, and another noted that there is no Commonwealth minister responsible for taking proposals recommended by the NTC through the COAG (or other) process or to advocate more broadly on its behalf.

As such one or two organisations considered that Infrastructure Australia itself would be in a better position to lead the development of the *National Freight Network Strategy*.

Performance measurement

The discussion of performance measurement indicators and issues with stakeholders yielded limited additional information. Most organisations agreed with the need for performance measures but did not venture any specific suggestions on what such indicators might comprise.

One organisation made the strong argument that the performance management regime "must be backed up by appropriate enforcement" in the form of penalties and incentives (citing the example of incentive payments as part of the last decade of National Competition Reforms). This perspective raises two key questions associated with the development and implementation of the strategy — 'How will governments be held accountable?' and 'who will measure and report on the progress of reforms?'

A small number of organisations made earnest suggestions based on their internal management experience, with some noting that these may not be appropriate for tracking national reform. Performance indicators that were raised in discussions included:

- level of use of specific components of the network;
- system capacity;

- average speed of movements;
- timeliness and reliability;
- transit/turn-around times;
- freight costs per litre/cubic volume/tonne of product;
- improved safety records; and
- environmental targets.

3.4 Suggested content of National Freight Network Strategy

Vision for the strategy

Many stakeholders did not see any issue with the vision that we put forward, which was drawn from the Victorian *Freight Futures* strategy.

> The overarching purpose of Freight Futures is to drive the development of an efficient, sustainable freight network for the future that balances the needs of the growing Victorian economy and population with the quality of life aspirations of the Victorian community.

There were however also a range of other diverse views. Stakeholder comments on the vision included that:

- *it's not aspirational enough* – the *National Freight Network Strategy* should be forward-looking and seek to drive national competitiveness in the global economy,
- *it needs to emphasise innovation* – the vision should be informed by all the new innovations in the international transport sector and consider options beyond what we've got today to stay ahead of the game.
- *it's not broad enough* – the vision needs to consider the broader transport system, economic drivers of manufacturing and industry, population dynamics, energy prices, consumer preferences, climate change and a host of other drivers of freight supply and demand;
- *it's a bit too broad* – too may areas with too many players and little specificity will not lead to real outcomes; and
- *there should not be a trade-off between the efficiency of the network and other benefits* – achieving an efficient freight network should naturally lead to economic growth and improvements in wellbeing.

These are important and valuable perspectives that should inform the development of the vision for the *National Freight Network Strategy*.

Principles, objectives and priorities of the strategy

Most stakeholders broadly agreed with the high-level principles, objectives and priorities summarised in Box 3.1.

In particular, many stakeholders agreed that the interaction between freight and other areas of regulation could not be ignored. These areas include passenger transport, urban planning and to a lesser extent, industry policy (in the way that it affects the location and concentration of industry).

One or two felt that the strategy should go so far as to effect change in these other policy areas (rather that just 'influence'). However, it was acknowledged that progress would only happen with 'bite sized chunks' and that tackling the whole transport system for example, would be too big a task.

Box 3.1

PRINCIPLES, OBJECTIVES AND PRIORITIES TO GUIDE THE DEVELOPMENT OF THE NATIONAL FREIGHT NETWORK STRATEGY

Principles

- The *role of Government* should be limited to policy and regulation to support customers and operators in moving freight optimally across the network, leading freight infrastructure planning and development, and providing funding for such developments where appropriate;
- the strategy should be *mode-neutral*, and not seek to favour one mode over the other;
- there should also be *neutrality between new and existing infrastructure* such that there is no prima facie bias towards expenditure on new infrastructure projects versus expenditure on infrastructure maintenance;
- the strategy should be a *high-level* document to guide decision-making and should not pre-empt investment decisions;
- *freight's interaction with other regulatory areas* should form part of the strategy;
- Government should ensure that the process of developing the strategy is as *transparent* as possible, and that the strategy itself is published and widely accessible;
- the strategy should provide a sense of the evolution of Australia's freight system, and apply to Australia's *long-term future* (e.g. 30 to 50 years); and
- the strategy should have sufficient *in-built flexibility* to allow for changes in the technical, economic and policy environments.

Objectives

- improve the efficiency of freight movement across the national freight network (considering all costs in the efficiency equation);
- minimise externalities associated with freight movement (including environmental and safety externalities); and
- influence policy making in other areas (e.g. urban planning and passenger transport).

Priorities

Priorities could be identified through:

- the application of rigorous cost-benefit analysis (to ensure government maximises net public benefits attributable to the freight network);
- investment in an independent, holistic and robust analysis of the national freight network — so as to identify gaps in the network, and their relative importance; and
- ensuring that proposed actions are affordable, support the interoperability of the broader freight network, and are scalable to meet future demand.

Many stakeholders also strongly agreed with the principle of modal neutrality, (although some stakeholders didn't understand this concept). This principle considers that all infrastructure investment decisions should be approached without bias or prejudice and be made on the basis of a holistic cost-benefit analysis. However, at least one stakeholder strongly disagreed, arguing that significant focus upon rail was required to stem the flow of modal choice towards road.

Some stakeholders proposed some other principles, objectives and/or priorities, which fell into four broad thematic categories:

- clear and active governance;
- orientation towards demand growth;
- a focus on key areas of priority; and
- consideration of peripheral but critical issues.

Many of the issues raised reflect broader concerns about the quality of the network (discussed above in section 3.1), accountability (section 3.3) and the challenges of the evolving operating environment (section 3.5).

Clear and active governance

Many stakeholders considered that the *National Freight Network Strategy* should be action-oriented with a governance framework that holds government accountable to a timetable for nation-wide implementation and a process of ongoing review. One stakeholder took the view that:

> Government cannot just play a passive supporting role as this reinforces the lack of focus on concrete action, and will allow government to 'sit on the fence' and is unlikely to lead to substantial investment.

Key issues related to ability of the governance body to "follow through on the actual policy" include:

- the need for the strategy to be based on the achievement of outcomes, not output targets (and certainly not issues relating to day-to-day functionality);
- the need for a government body to be the enabler with the authority to make key decisions and actually follow through with them;
- the need for a governance arrangement that will examine all relevant issues independently and based on merits (i.e.) a "warts and all examination shielded from special interest groups";
- the preference for *greater Federal Government responsibility* – with some organisations taking the view that only the Federal Government has the capacity to develop a national network and in some instances this may mean that certain responsibilities (particularly in the area of infrastructure development) may need to be pulled away from State Governments;
- the need for a range of timeframes and milestones that include short and medium-term actions and priorities in addition to the long-term perspective – these milestones could be at the 5, 10, 15, 25, 35 and 50 year marks; and
- the need for transparency and clarity over how funds are raised and where money is spent.

Orientation towards demand growth

Several stakeholders articulated the need for the *National Freight Network Strategy* to be *growth-oriented* and *demand sensitive* – i.e. government needs to actively identify where infrastructure commitments are needed based on economic, demographic and geographic shifts in demand. In this regard, good forecasting of the future freight task was identified as a priority.

This demand focus is echoed through some stakeholder comments on the need for a principle of cost reflectivity/cost recovery. Most stakeholders supported a system of user charges to recover capital and maintenance costs (assuming such a system would have low administration costs).

However, this also implies that the strategy needs to balance making decisions on a commercial basis with a more anticipatory, "big picture" forward-planning role, with the ability to take on nation-building infrastructure projects in areas where demand may not yet be realised.

A focus on key areas of priority

Many stakeholders identified at least one area of immediate priority, with the most common areas comprising:

- *improving regulatory consistency to improve accessibility* – several organisations cited vehicle standards and regulations, safety restrictions and different rail gauges as examples of inter-jurisdictional inconsistencies that could be quickly and easily addressed with greater national leadership;
- *restoring current assets* – both rail and non-rail users raised the need to fix, maintain and upgrade rail infrastructure. Some stakeholders were facing adverse impacts from the closure of rail links in regional areas, particularly in New South Wales; and
- *examining impediments* – some stakeholders noted that the key areas of priority related to the issue of *impediments* rather than *gaps* per se in the network.

Peripheral but critical issues

Stakeholders also raised a number of other secondary issues for consideration.

The first of these was for development of the strategy to be cognisant of the issue of *national security*. The freight network plays a vital role both in transporting materials of significance to national security, but also in ensuring that dangerous goods are detected and stopped.

Second, one or two stakeholders saw the need to ensure that there is a level playing field i.e. *competitive neutrality* between public and private businesses as well as fair and adequate rights of access between infrastructure owners and third-party users.

Lastly, a large number of stakeholders were acutely aware of the environmental impacts of freight movements and related sustainability issues. A number of firms gave examples of putting a larger portion of freight movements onto more expensive modes to uphold their commitments to reduce environmental impacts and suggested that this also be considered in the development of the *National Freight Network Strategy*.

3.5 Evolving operating environment

A number of organisations identified the importance that the *National Freight Network Strategy* be forward looking, and thus explicitly consider the evolving freight operating environment. From the perspective of many organisations, infrastructure is a long-term investment and as such, the evolving operating environment must be considered to ensure the network operates efficiently into the future.

Specifically, organisations discussed the need to consider the future direction of:

- evolving consumer demands and preferences;
- international freight routes;
- domestic and international government policies; and
- technological change.

These are discussed in more detail below.

Evolving consumer demands and preferences

The need to consider the impact of changing consumer demands and preferences on the future freight task was identified by a number of organisations. Many freight network customers are consumer orientated and therefore design their freight network to match consumer preferences. For example, consumer preferences have shifted to demand more 'just in time' deliveries. Organisations have started to respond by reducing retail store inventories and increasing the number of small freight movers in the system. Further, a number of organisations indicated that consumers are increasingly purchasing products and expecting rapid home delivery.

It was also apparent that many businesses are aware of the increasing importance of their Corporate Social Responsibility commitments. In particular as incomes rise, consumers are exercising their preferences for environmentally friendly and sustainable goods and services. As more scrutiny is being placed on business to reduce the impact of production and transportation on the environment, this will have implications for how organisations decide to move goods and their individual freight networks. Stakeholders recognised that such consumer preferences are evolving and will continue to evolve into the future and must therefore be considered by a national freight strategy.

International freight routes

Some organisations raised concerns that the background paper failed to discuss the potential effect of international freight routes on Australia's freight network. A significant proportion of some organisations' freight task is import orientated. From the perspective of these organisations, a national freight strategy must consider which ports freight will be imported through in the future. One organisation gave the example that Darwin could become a major import port as international ports in Southeast Asia continue to grow.

International policy setting

A number of organisations indicated that a *National Freight Network Strategy* must consider future domestic and international policy setting in areas beyond transport and freight. Different international agreements could have implications for the way freight is moved within Australia. Of most interest to stakeholders was the direction that international climate change policy may take and the potential implications for how freight is moved within Australia. For example, different modes have varying carbon intensities. Accordingly, if reducing carbon emissions becomes an international priority this must be accounted for in a *National Freight Network Strategy*.

Technological change

Technological change was also considered to be an important consideration for a forward-looking *National Freight Network Strategy*. Changes in technology have the potential to dramatically change the way in which freight operates. As an example, operations of SMART vehicles are improving the safety and efficiency of road freight.

Chapter 4

Implications for development of the strategy

This chapter considers the implications of the consultation findings detailed in Chapter 3 for the development of a *National Freight Network Strategy*. The consultations identified a wide range of perspectives on a range of issues. These issues have implications for the development of the strategy in five areas:

- analytical foundations;
- strategy scope;
- strategy content;
- development process; and
- governance.

4.1 Analytical foundations

Quality of the existing national freight network

The consultations revealed a wide range of perspectives on the quality of the freight network (however defined), and thus where opportunities exist for improvement. It would be beneficial, if time permits, for the strategy to be informed by a holistic assessment of the existing freight network. Some assessment was featured in the background paper previously prepared by the Allen Consulting Group. However, it is felt that this assessment could be developed further. In particular, further analysis of the network would highlight key areas for investment, and bolster the case for the strategy itself.

This assessment would be informed by past research, and may require some additional primary research. This assessment would identify key gaps, impediments and other quality shortcomings in the national freight network.

Long range planning and forecasting

A number of stakeholders considered that the strategy should be focussed upon the freight network of the future, and not the network of 2010. To achieve this, it will be necessary for development of the strategy to be informed by reliable analysis regarding the likely future of freight environment. This would include not just total movements, but also where likely major nodes and major movements are likely to be. This future is likely to be influenced by factors such as technological change, demography, and international trends.

There is undoubtedly a wide range of potential scenarios that could eventuate. Nevertheless, it is important for the strategy to consider what the future may look like, and not be grounded in the freight network of 2010.

4.2 Strategy scope

Identifying the national freight network

There was broad agreement among stakeholders that the national freight network included linkages between capital cities, along with major routes within cities. However, stakeholder consultations indicated a need for greater clarity, potentially in the form of mapping, on the scope of the national freight network. Indeed, as many stakeholders preferred the 'impact' approach to defining the national network, as opposed to the 'functional' approach, it is appropriate that the different options be mapped.

Limiting strategy to the national freight network

A concern raised repeatedly in consultations was that the preferred definition of the national freight network, particularly the focus upon 'functionality', omits many facets of individual organisation freight networks. Those facets of the network that would be omitted are frequently described as the 'first and last mile'. The key concern of stakeholders was that potential gains from improvements to the national freight network could be greatly limited if like improvements were not also made to other components of the freight network. Accordingly, it is important that development of the strategy be cognisant of this issue.

Considering national freight network in isolation

A related concern also raised in consultations, was that the *National Freight Network Strategy*, may not adequately consider the broader transport system. Indeed, some organisations felt that effort should initially be put into developing a *National Transport Strategy*, considering both private and public transport movements. Accordingly, some effort may be required to explain and justify the approach of focusing upon the national freight network, instead of a broader focus. At the same time, the strategy will need to demonstrate that it is cognisant of issues in the broader transport system.

4.3 Strategy content

Proposed vision

Stakeholders were broadly supportive of the proposed content of the strategy with respect to objectives and principles. The one aspect of the proposed content that should possibly be altered on the basis of consultation findings is the proposed vision. It was considered that the proposed vision was not aspirational enough, and implied that there were tradeoffs between having an efficient freight network, and economic growth and quality of life.

As the vision will be integral in determining the objectives and other key elements of the strategy, careful attention should be given to perfecting this.

Language and tenor

A number of the concepts contained in the discussion paper distributed to stakeholders were not easily understood. These included concepts such as 'modal neutrality' and 'intermodality'. Accordingly, care should be taken to use simple language in the *National Freight Network Strategy*, and supporting papers, to ensure that the strategy is easily understood.

4.4 Development process

Future consultation

Many of the consulted organisations indicated a desire to be involved in future consultations to inform the development of the *National Freight Network Strategy*. Indeed, a number of organisations expressed their frustration from past experiences of being consulted on various issues, and never hearing about the project until a report was publicly released.

Accordingly, it is considered that subject to available time, broad consultation should be undertaken with stakeholders. In the first instance it is suggested that this consultation be focussed upon peak bodies such as the Australian Logistics Council, and subsequently some focus upon specific industries. The range of perspectives from freight customers is likely to be very broad — consultations as part of this project highlighted both the challenge and value of coming to terms with the diverse issues and needs associated with the freight network.

Moderating high expectations

The need for additional consultation discussed above also has an important role to play in moderating potentially high expectations among stakeholders on both the content of a *National Freight Network Strategy*, and what the strategy can realistically achieve. For example, expectations are high that the strategy may lead to the investment of significant funds, and lead to large-scale improvements in the freight network, such as reduced congestion and improved travel times.

4.5 Governance

Governance issues featured prominently in the course of consultations, relating to both the development and implementation of the strategy. Freight network customers were concerned that the proposed governance arrangements for the strategy too closely resembled the 'traditional' model for Commonwealth-State relations. In particular, it was considered that the traditional model may lead to inertia, and hamper improvements to the freight network.

Accordingly, the governance of both the development and implementation of the strategy should be carefully considered. Issues requiring consideration include the role of the state and territory governments, and whether there should be a formal role for freight customers in the development of the strategy. For example, freight network customers could be represented by the Australian Logistics Council, or another peak body. Other issues requiring careful consideration include:

- the level of independence and autonomy of the governing body; and
- the extent to which proposed actions in the strategy will be supported by public funds.

Appendix A

Consultation discussion paper

A.1 Background and context

In December 2008, Infrastructure Australia provided the Council of Australian Governments (COAG) with a detailed overview of the infrastructure challenges facing Australia, and possible approaches to overcoming these challenges. Australia's freight infrastructure formed a major focus of that report, with significant attention paid to the country's airports, seaports and rail freight network, as well as relevant road networks.

The importance of Australia's freight infrastructure was further echoed in a recent speech by the Prime Minister, Kevin Rudd, indicating that freight transport is 'crucial to the productivity of Australian businesses, both large and small.'[2] Given this link, and the projected need for significant infrastructure investment, the Prime Minister declared that, 'in 2010, the transport priority for the Council of Australian Governments will be freight transport.' Accordingly, Infrastructure Australia is pursuing this priority through the development of two new strategies:

- a national ports strategy; and
- a National Freight Network Strategy.

A.2 Preliminary thinking

In November 2009, Infrastructure Australia commissioned the Allen Consulting Group to develop a background paper on the development of the *National Freight Network Strategy* highlighted above. That background paper focused on:

- the importance of freight to Australia's economy and society, and the nature of the current and future freight task;
- factors that constrain the efficient operation of Australia's freight network, and the potential for a national strategy to address these constraints;
- existing freight policies that have been produced by a number of jurisdictions and organisations, and the apparent lack of an extant freight network strategy that provides guidance for Australia as a whole, comprehending all freight modes; and
- the concepts, principles, structure and governance arrangements that should underpin the development of a National Freight Network Strategy.

This previous background paper is available from the Allen Consulting Group upon request.

[2] Rudd, K 2010, 'Building Australia's Future: Building 21st Century infrastructure for a more productive economy', 20 January, <http://www.pm.gov.au/node/6422>, Accessed 24 February 2010.

A.3 The purpose of this discussion paper

Infrastructure Australia has re-engaged the Allen Consulting Group to consult with major freight customers about core issues raised in their previous background paper — primarily those that relate to the last dot point above. Infrastructure Australia believe that the unique perspective of freight customers about the scope, gaps and needs of the national freight network will be invaluable as the strategy is developed.

Thus, the purpose of this discussion paper is twofold. First, to provide freight customers with a brief summary of the core issues raised in the previous Allen Consulting Group background paper to Infrastructure Australia. Second, to prompt feedback from freight customers about specific aspects of the background paper.

A.4 Defining the national freight network

Before government can develop a National Freight Network Strategy, it needs a valid, practical and widely agreed definition of what constitutes Australia's national freight network. Such a definition is important, as it will determine the boundaries of the strategy — that is, which elements of Australia's freight system will, and will not, be covered by the National Freight Network Strategy.

Question 1: Does a* national *freight network already exist from your organisation's perspective? If so, how would you conceptualise this network?

A map of Australia is provided at the end of this document (Figure A.2). If possible and relevant, please use this map to indicate where you consider that this national freight network exists.

At a high level, the Allen Consulting Group defines a *freight network* as a 'cohesive set of infrastructure links (edges) connecting concentrations of people or economic activity centres (so-called nodes)' — connections which are intended to be utilised by transport actors.[3] The three main characteristics of a freight network are:

- *interoperability* — 'which refers mainly to operational and technical uniformity which allows actors and operators to use a network for different simultaneous or sequential purposes';
- *interconnectivity* — 'which is in particular concerned with horizontal coordination and access to the network from different geographical areas'; and
- *intermodality* — 'which addresses the issue of a combined use of different transport modes in the chain of freight transport.'

Question 2: Do you agree with this high level definition of a freight network? Why/why not? Can you suggest any modifications, or an alternative?

The Allen Consulting Group canvassed four possible approaches to defining more specifically what constitutes a *national* freight network, as follows.

[3] This definition is derived from: Bithas, K and Nijkamp, N 1997, 'Critical factors for an effective and efficient multi-modal freight transport network in Europe', *Innovation*, vol.10, no.3, pp.243-58.

Constitutional focus

This approach is based on State and Territory borders and the existing division of constitutional responsibilities between the Australian and State and Territory Governments. From this perspective, a national freight network would comprise those elements of the broader freight system that primarily involve the movement of freight across State and Territory borders, as well as those elements that interface with the constitutional responsibilities of the Australian Government.

Nodal focus

This approach is concerned less with jurisdictional borders and constitutional responsibilities and more with the nation's key nodes — i.e. the cities, towns and other centres that have sufficient economic or societal importance (e.g. the capital cities and key regional centres) and/or play a key role in facilitating the transport of goods across the broader network (e.g. Port Augusta and Tennant Creek). From the perspective of the nodal focus, a national freight network would consist of those elements of the broader freight system that link Australia's prescribed key nodes.

Impact focus

This approach is derived from the 2008 *National Transport Policy Framework*, and its definition of a 'national transport issue' as one that is 'important to a significant proportion of Australians (be it directly, e.g. urban congestion or indirectly, e.g. productivity of economically important supply chains), irrespective of the level of government formally responsible.' From this perspective, a *national* freight network consists of those elements of the broader freight system that have a material impact on the national economy or society. Such a definition implies that all significant elements of the freight system across the country as a whole comprise the national freight network.

Functional focus

This approach is similar to the impact focus, in that it shares the view that a national freight network should be defined by those elements that have a material impact on the national economy or society. It differs, however, from the impact focus by providing functional criteria limiting the potential scope of what constitutes a national freight network. According to these three criteria, a particular element of the broader freight system can be considered part of a national freight network if it:

- facilitates freight movement of significant volume and/or value — in a sense, this criteria provides further definition to the concept of materiality that underpins the impact focus;
- is intended to be used to move more than one class of goods (e.g. a railway line that is used to transport coal, grain and cattle); and
- is intended to be accessed by more than one user.

Question 3: Which of these approaches offers the most appropriate means of defining the national freight network from your organisation's perspective, or would you suggest another?

Do any of these approaches alter your own conception of what constitutes the national freight network?

A.5 Principles to underpin a national strategy

The Allen Consulting Group suggests that the development of a National Freight Network Strategy should be underpinned by the following principles.

- *Role of Government*. Government should only develop a strategy if it has a clear and agreed view of what its role in the national freight network will be. It is suggested that this role be limited to:
  - using policy and regulation to support customers and operators in moving freight optimally across the network, while ensuring that this movement is in line with broader goals — such as sustainability; and
  - leading the planning of freight infrastructure development and, where appropriate, providing funding for such development — though only if there is clear net public benefit from doing so, if such funding is necessary, and if there are no higher priorities for public expenditure. Related to funding, a National Freight Network Strategy provides the opportunity to think expansively regarding infrastructure needs, without being constrained by views regarding funding sources.
- *Modal neutrality*. The strategy should not seek to favour one mode over the other. Rather, it should seek to create a situation where government policy and regulation are (where reasonable) applied equally across all modes in terms of network outcomes.
- *Neutrality between new and existing infrastructure*. The strategy should be framed in a manner to ensure neutrality between developing new and renewing existing infrastructure when considering solutions to identified problems in the network.
- *Level of detail*. The strategy should aim for a high-level document, guiding decision-making relevant to the national freight network. As such, the strategy should not attempt to pre-empt this decision-making by supporting specific proposals or seeking to provide a specific operational template for the future of the freight network.
- *Freight's interaction with other regulatory areas*. Government should seek to gain an understanding of how other regulatory areas (e.g. urban planning and passenger transport) impact the performance of the freight network, and provide a mechanism for a broad range of government agencies to inform the development of the strategy.
- *Importance of publication and transparency*. Government should ensure that the process of developing the strategy is as transparent as possible, and that the strategy itself is published and widely accessible.
- *Timeframe*. The strategy should provide a sense of the evolution of Australia's freight system, and apply to a lengthy future timeframe (e.g. 30 to 50 years). Government should also recognise that developing a freight network strategy may prove to be a lengthy process (it is noted, for example, that it took the Victorian Government 7 years to develop its *Freight Futures* strategy).
- *Strategic flexibility*. The strategy should have sufficient in-built flexibility to allow for changes in the technical, economic and policy environments.

Question 4: What principles should underpin the development of the national freight network?

Are there any particular aspects of the principles outlined above that you would retain, remove or alter?

A.6 What could a National Freight Network Strategy look like?

The Allen Consulting Group suggests that a National Freight Network Strategy should comprise: an overarching vision; objectives; priorities; and performance measurement.

Vision

Before developing the strategy, government should have a clear understanding of what the strategy should be aiming to achieve — in other words, what constitutes an ideal future network in the eyes of the government. The Allen Consulting Group suggests that a vision similar to that articulated by the Victorian Government's *Freight Futures* would be appropriate:

> The overarching purpose of Freight Futures is to drive the development of an efficient, sustainable freight network for the future that balances the needs of the growing Victorian economy and population with the quality of life aspirations of the Victorian community.

Question 5: What is an appropriate vision for the proposed National Freight Network Strategy?

What aspects of the* Freight Futures *vision would you retain, remove or alter?

Objectives

The Allen Consulting Group proposes that the strategy seek to achieve the following objectives:

- improve the efficiency of freight movement across the national freight network (considering all costs in the efficiency equation);
- minimise externalities associated with freight movement (including environmental and safety externalities); and
- influence policy making in other areas (e.g. urban planning and passenger transport).

Question 6: What are appropriate objectives for the proposed National Freight Network Strategy?

What aspects of the objectives listed above would you retain, remove or alter?

Priorities

These are the broad actions that government believes will best achieve the objectives of the strategy. The Allen Consulting Group suggests that these priorities could be identified through:

- the application of rigorous cost-benefit analysis (to ensure government maximises net public benefits attributable to the freight network);

- investment in an independent, holistic and robust analysis of the national freight network — so as to identify gaps in the network, and their relative importance; and
- ensuring that proposed actions are affordable, support the interoperability of the broader freight network, and are scalable to meet future demand.

Question 7: How should the strategy identify priorities for action?

What aspects of the criteria listed would you retain, remove or alter?

Has your organisation undertaken its own network analysis to identify gaps and other constraints? What were the key findings?

Performance measurement

Ideally, the strategy would include some mechanism to allow third parties to objectively track government's progress in pursuing the strategy. Most existing freight policies lack any such mechanisms — an exception being the New South Wales Government's target of a 40 per cent rail share of freight throughput to Port Botany by 2011.

Question 8: What mechanisms should the strategy include to measure the government's performance in progressing the strategy?

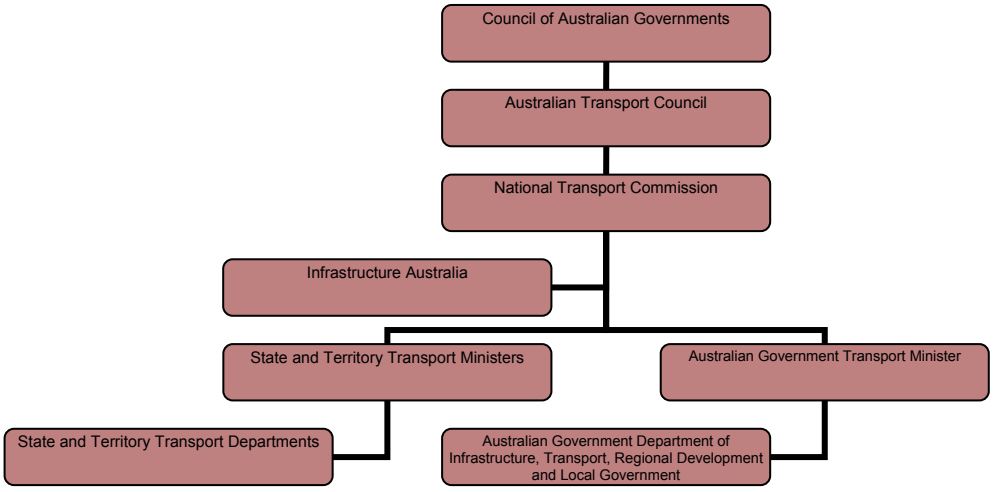
What quantitative aspects of the freight network could be measured to provide a sense (either by itself or in conjunction with other aspects) of the performance of the freight network?

A.7 Governance

The previous Allen Consulting Group background paper suggests that the National Transport Commission (NTC) (overseen by the Australian Transport Council and, ultimately, the Council of Australian Governments) would be a suitable body to govern the development of the strategy. Indicative representation of governance arrangements is provided in Figure A.1.

Figure A.1

GOVERNANCE ARRANGEMENTS FOR A NATIONAL FREIGHT NETWORK STRATEGY



Source: Allen Consulting Group

Question 9: Does Figure A.1 detail an appropriate governance arrangement?

Are there adequate provisions for industry consultation?

Figure A.2

AUSTRALIAN FREIGHT NETWORK

Source: Department of Transport and Regional Services 2004, *AusLink White Paper: Building Our National Transport Future*, Canberra.

Appendix B

Defining a freight network

To assist the development of the National Freight Network Strategy, the concepts of interoperability, interconnectivity and intermodality are explored in detail below. This section draws upon earlier work by the same authors who were cited in the background paper (Bithas & Nijkamp 1997).

B.1 Interoperability

Interoperability refers to the technical compatibility of a network, which is largely reliant on the level of standardisation of network infrastructure (e.g. for gauges, electric current, axle loads, or dimensions of rolling stock). High levels of interoperability between different modes allows for efficient use of transport capacity. When considering interoperability two factors of strategic importance must be considered:

- the degree of complementarity between different modes has the potential to add benefit in terms of added value networks for synergy (e.g. rail and waterways, roads and airports etc.); and
- Competition between different modes in order to operate under the most cost-efficient conditions (e.g. Common carriage) (Nijkamp et al 1994).

B.2 Interconnectivity

Interconnectivity refers to the level of integration between different layers of a network (e.g. coordination of high speed/long distance networks and lower speed local networks, for example light rail). This includes spatial-geographical coordination of infrastructure by competent territorial authorities at national-state and state-local levels (Nijkamp et al 1994).

B.3 Intermodality

Intermodality refers to the use of freight network infrastructure by competing or complementary network modalities. It involves the organisational cooperation and integration of various actors, including operators, and regulations and logistic suppliers (Nijkamp et al 1994).

The concept of intermodality is central to the Trans-European networks in terms of promoting economic cohesiveness, providing access to all regions, and improving connections with all other means of transport within the dynamic, multimodal transport framework (Nijkamp et al 1994).

The quality of nodal centres such as terminals, stations and urban centres plays an important role in the degree of intermodality, as do the frequencies of different types of transport used by operators. The quality of intermodality will also depend on the degree of organisational cooperation and the level of integration of various actors in the network, such as operators, regulations and logistic suppliers (Nijkamp et al 1994).

If some modal parts of the network are weaker than others (or absent) it will negatively influence the performance of the entire network for a certain type of transport. The reason for this is that freight rarely travels from supplier to consumer by just by one mode of transport (Nijkamp et al. 1994).

Appendix C

Stakeholder consultations

Table C.1

STAKEHOLDER CONSULTATIONS

Organisation	Industry sector	Stakeholder	Date
Woolworths	Diversified retail	Ben Newton, Transport Strategy Manager Chris Brooks, Transport Development Manager Paul Hill, Logistics Program Officer and Optimisation Manager	16 March 2010
Coles	Diversified retail	Jim Redfern, GM Logistics	23 March 2010
Australia Post	Communications – post and parcel	Steve Ousley, A/G GM Mail & Network Division	29 March 2010
TNT Express	Communications – parcels and freight	Curtis Berry, Director Operations and Workplace Risk	9 April 2010
AWB Limited	Diversified agribusiness	Robin Cassar, Business Operations Manager Nick Papadopoulos, Freight Manager	1 April 2010
GrainCorp	Diversified grains and logistics	Peter Marshal, Supply Chain Manager David Ginns, Corporate Affairs and Investor Relations Manager Jock Benham, Rail Freight manager	8 April 2010
National Foods	Food and beverage	Misha Shliapnikoff, GM Logistics Operations	1 April 2010
Unilever Streets	Ice cream and confections	Dan Harris, National Distribution and Customer Service Manager	7 April 2010
Fosters Group	Alcoholic beverages	John Daymon, National Manager – Transport Capability and Improvement, Customer Supply Chain Clint der Bogt, Linehaul Optimisation Manager Kathryn Hodges, Corporate Affairs Adviser	7 April 2010
McDonalds	Restaurant chain	Kim Fitzhenry, National Purchasing Manager Jackie McArthur SVP/Director of Supply chain	8 April 2010
Amcor	Paper and cardboard	Ray Purcell, Chief Procurement Officer	23 March 2010
Department of Defence, Joint Logistics Command	National defence	Brigadier David Saul, Director-General, Strategic Logistics	29 March 2010
Boral	Building materials	Andrew Rosengren, GM Transport	24 March 2010
Incitec Pivot Limited	Fertiliser and explosives	Terry Hargreaves, National Land Transport Manager	30 March 2010
Caltex	Oil and petroleum products	Peter Klok, National Lubricants Supply Chain Manager	26 March 2010
Pacific Brands	Clothing	David Miller, Group Logistics Manager	23 March 2010

Source: Allen Consulting Group

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Bithas, K & Nijkamp, P 1997, 'Critical factors for an effective and efficient multi-modal freight transport network in Europe', *Innovation*, vol.10, no.3, pp.243-58.

Nijkamp P, Vleugel J M, Maggi R & Masser I (eds.) 1994, *Missing Transport Networks in Europe*, Ashgate Publishing Company, Aldershot, United Kingdom.