

Inquiry into National Freight and Supply Chain Priorities:

A response from the National Transport Commission

1. Introduction

Key Points

NTC believes that if we are to improve freight and supply chain productivity across Australia we need to ensure that the data collected will allow:

- identification of inefficiencies in supply chains;
- assessment the likely impact of possible solutions; and
- measurement the effect of future actions.

We propose that the *Inquiry into National Freight and Supply Chain Priorities* should recommend:

- Funding the establishment and maintenance of a transport sector satellite account that the Australian Bureau of Statistics (ABS) can use to produce more comprehensive data/information on freight and passenger movements.
- Implementing the use of a national productivity framework as proposed by NTC.

These initiatives would result in:

- improved government/industry planning processes;
- improved investment decision making;
- improved use of targeted government policy levers and regulation where appropriate; and
- eventual access to productivity-outcome trend data along supply chains/key transport routes with the ability to examine this data by jurisdiction/region, transport mode and transport sub sector.

The National Transport Commission (NTC) is an independent statutory body advising the Transport and Infrastructure Council on national reforms to improve land transport productivity, efficiency, safety, environmental performance and regulatory efficiency. In doing so we develop, monitor and maintain uniform or nationally consistent regulatory and operational arrangements for road, rail and intermodal transport. We support the *Inquiry into National Freight and Supply Chain Priorities* (the *Inquiry*) and recognise that this is an opportunity to identify ways we can maximise the productivity of freight and supply chains to build a better future for Australia. Thank you for the opportunity to provide our comments.

Productivity and competitiveness are key goals for Australia as we continue to grow our economy and improve living standards. The transport and logistics sector is one of the key drivers of the Australian economy. The Australian land transport industry delivers significant value by moving people and freight from where they are, to where they are needed, at the time they are needed. On an average day in Australia, the sector moves:

- passengers more than 1.15 billion kilometres – equivalent to an average daily distance of 49 kilometres per person; and
- nearly five million tonnes of freight – equivalent to approximately 200 kilograms moved for every person.

Overall, it has been estimated that the land transport sector contributes approximately nine per cent of Australia's gross domestic product.

We live in an age of constant change and disruption and the transport sector is no exception. Many things are contributing to this change, including big data, near real time analytics, increased levels of automation and use of drones (both land based and air based) for some last mile deliveries. We are moving away from siloed mode based transport, to more integrated 'three dimensional' mobility corridors with vertically integrated market structures. Consequently, the way we plan and invest and the way we create policies and regulations needs to evolve as well. We have highlighted the regulatory settings we think are appropriate to a constantly changing environment in Section 3 of our response. We have also highlighted opportunities to leverage new technologies to improve supply chains, for example the use of blockchain is discussed within Section 3.4.

The NTC has provided comments against each of the relevant subject areas set out in the discussion paper. At the centre of our feedback, are four main points which we think need to be considered by the Inquiry:

1. We need to define a common understanding of what supply chain/s we are aiming to improve through the *National freight and supply chain strategy*, as well as recognise the shared role that government and industry have in achieving this.
2. The movement of freight needs to be given equal importance as the movement of people in the eyes of governments, industry and the wider community.
3. Planning and administration by both government and industry needs to be integrated across modes and locations.
4. We need data and a methodology to detect where, along supply chains, inefficiencies stem from, measure how productively the Australian transport sector is operating and identify opportunities to improve productivity.

The NTC has been moving a long way towards addressing the final point. We recognise that on a national scale, better productivity results in higher incomes, higher government and industry revenue and better standards of living. We have been undertaking two projects which recognise that if we're going to measure productivity, we need to do two things. Collect the right data and then analyse that data in a meaningful way. The *Who moves what where* and the *National land transport productivity* projects have aimed to make it easier for both industry and government to identify blockages to productivity along the supply chain and highlight opportunities for improvement.

If we are to improve freight and supply chain productivity across Australia we need to ensure that we collect the data we need to:

- Identify inefficiencies in supply chains;
- Assess the likely impact of possible solutions; and
- Measure the effect of future actions.

Later this year NTC will provide the Transport & Infrastructure Council ministers with our findings/proposed way ahead following completion of our work on the *Who moves what where* and *National land transport productivity framework* projects.

We believe the Inquiry should consider the following initiatives as part of the national strategy:

- Fund the establishment and maintenance of a transport sector satellite account that the Australian Bureau of Statistics (ABS) can use to produce more comprehensive data/information on freight and passenger movements
- Implement the use of a national productivity framework as proposed by NTC

These initiatives would result in:

- improved government/industry planning processes;
- improved investment decision making;
- improved use of targeted government policy levers and regulation where appropriate; and

- eventual access to productivity-outcome trend data along supply chains/key transport routes with the ability to examine this data by jurisdiction/region, transport mode and transport sub sector

We designed the [Who Moves What Where](#) project to collect available data, identify information gaps and propose/identify opportunities to improve data collection. Our aim was to update and improve the quality of available land transport data by filling gaps in information on passenger and freight movement in Australia. We drew on 150 different sources of information, related to the movement of freight and passengers on Australia's road and rail networks, including a high-level analysis of the networks, operators and transport task. The Who Moves What Where [information paper](#) was published in August 2016. The project has also identified ways to improve our data collection efforts which we will report to transport ministers in November 2017.

We then developed a National Land Transport Productivity Framework to measure land transport productivity with a supply chain focus. We noted that almost half of Australia's transport movements are conducted by industries that are not technically part of Australia's transport sector. Consequently, we have designed productivity measures to capture all parts of the economy that use substantive amounts of transport including mining, agriculture and retail.

We believe this new analytical tool, together with improved transport data, will allow Australia to make better planning and investment decisions, and inform changes to transport policy settings. Over time we expect to be able to identify trend data that will indicate whether policy changes, investment decisions or major technology initiatives have improved the overall performance of our transport systems. We see this as a critical component of any National freight and supply chain strategy. That is, we need to be able to measure the impact of new initiatives, investments or changes in policy as we implement the strategy.

We encourage the Inquiry use our framework as a starting point to develop a wider freight and supply chain productivity framework, which can be used to measure the appropriateness of the measures included within the National freight and supply chain strategy.

Our detailed comments and further information about the National Land Transport Productivity Framework are contained within the responses to relevant discussion paper questions within Section 3.

2. What roles can governments and industry play in improving supply chains?

In an age of disruption and constant change, we need to design a regulatory framework that is technology neutral and principles-based in order that it remains flexible and fit for purpose.

This includes the removal of regulatory barriers that are excessive, unnecessary, duplicative or exclusionary. According the Australian Law Reform Commission (2008), a principle-based model makes it possible to respond to new issues as they arise without having to create new rules. They take a pragmatic approach in drafting regulatory tools, adopting a 'hybrid' model, supplementing these principles with more specific rules in regulations or other legislative instruments, to accommodate different industries or different policy considerations. In this model, primary legislation, legislative instruments, codes and guidelines can all work together in a complementary way to efficiently and effectively regulate the movement of people and goods.

Industry innovation, co-operation and self-regulation can also improve supply chains without the need for government intervention. Highlighting the opportunities available in this space, a Deloitte Access report (2014) estimated that self-imposed processes or requirements by business cost \$21 billion to develop and administer and \$134 billion a year to comply with. In comparison, government regulations cost about \$27 billion a year to administer and cost businesses \$67 billion a year to comply with. This highlights that responsibility for identifying issues and developing solutions in transport must be shared between government and industry.

What opportunities have we identified?

From our recent work, we have identified opportunities for the Inquiry to consider. These are summarised below:

- There are a range of measures being trialled around Australian cities to **manage congestion levels** and change the way freight moves around our cities. We encourage the Inquiry to explore whether any could be applied within a National freight and supply chain strategy.
- The Inquiry should consider whether there is a need to adopt a position about the most desired **future market structure** for automated (and semi-automated) vehicles for both passengers and freight, in order to support efficient land freight movements.
- It is important that the **community understand the impact of import demand** on the freight task and the resultant need to ensure there are adequate freight links to service that demand. Not just now, but into the future, meaning we also need to protect appropriate freight corridors.
- We believe advice provided to the Victorian government by Infrastructure Victoria could be applied nationally. That is that **air quality and noise monitoring by the Environmental Protection Authority (EPA)** would provide evidence on potential port related health and amenity impacts. There may be an opportunity for the Inquiry to consider the most effective way of monitoring and how to utilise the results of the monitoring to inform policy and the community.
- The Inquiry should consider whether there is a need to provide **national guidance for local planning authorities** to establish appropriate governance arrangements. These could be aimed at considering the needs of passenger and freight movements strategically, ensuring their local land use plans support these needs and that they coordinate with adjoining planning authorities along freight routes.
- The Inquiry should consider whether there is merit in **incentivising the adoption of new technologies** such as blockchain to improve supply chain efficiency.
- **Scenario planning** can be a valuable strategic planning tool when examining complex systems with high levels of uncertainty. An NTC exploration of container supply chains has identified many opportunities for improved productivity, but none of these were regulatory barriers, and would often have been implemented with industry leadership and cooperation.
- If we are to improve freight and supply chain productivity across Australia we need to ensure that we collect the data we need to:
 - Identify inefficiencies in supply chains;
 - Assess the likely impact of possible solutions; and
 - Measure the effect of future actions.
- The NTC has developed a **National land transport productivity framework**. This is attached as [Attachment A](#) to our submission and we encourage the Inquiry use it as a starting point to develop a wider freight and supply chain productivity framework, which can be used to measure the appropriateness of the measures included within the National freight and supply chain strategy.
- We also strongly encourage the Inquiry to consider our finding that the introduction of a **Transport Satellite Account** as part of Australia's System of National Accounts would improve investment decisions. It would start to build important trend data which would assist both government and industry to target their decision making to improve transport productivity. It would bring together data on both the hire and reward sector and the in-house or own account transport of the rest of Australia's industry sectors. This would provide comprehensive detail that can be used within a National land transport productivity framework and could be reliably disaggregated to give a jurisdictional or regional picture of transport productivity.

3. Responses to the discussion paper questions

3.1 Competitiveness in the Australian freight sector

Key Points

1. The World Bank's Logistics Performance Index ranked Australia 19th in the world in 2016, down from 16th two years beforehand. The full set of data is available from the World Bank's website (World Bank 2016b).
2. There could be an opportunity to investigate potential regulatory barriers in Australia to efficient and effective Customs procedures as part of the Inquiry.

The Logistics Performance Index (LPI) is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics. It uses six key dimensions to benchmark each country's performance.

The LPI is based on a worldwide survey of operators on the ground (global freight forwarders and express carriers), supplemented with quantitative data on the performance of key components of the logistics chain.

Australia is currently ranked 19th in the world in 2016, down from 16th two years earlier. Furthermore, while Australia's overall performance is declining, the performance of both Germany (number one in the world) and Singapore (number one in our region) are increasing.

With the exception of 2014, our lowest scoring area is consistently 'Customs', that is the speed, simplicity and predictability of the clearance process by border control agencies in Australia.

There could be an opportunity for improving this through the work already done in Australia to develop what is termed a 'Port Community System (PCS).

One of the most useful functions of a PCS is to automatically derive, from information exchanges between the private port operators, the information needed by Customs, such as the Customs manifest. This information can then go to Customs without further manual intervention. Other typical services of a PCS are:

- information exchange between transport operators in the port, port users, Customs, port and other authorities
- electronic handling of all information regarding import and export of containerised, general and bulk cargo for the port community
- status information and control, tracking and tracing goods over the whole logistics chain
- processing declarations of dangerous goods with the responsible authorities

The ALC notes that Australia currently has several well-developed systems that could be aligned.

3.2 Urban Growth Pressures

Key Points

1. Most freight arriving at Australian ports is moved by truck to a destination within 50kms of the port.
2. eCommerce and on-demand deliveries are changing the nature of freight. Australia imports far more than we export.

Land use patterns

The land use patterns of our cities are changing and we are accommodating an increasing population density in urban areas, particularly in inner city areas and activity centres. These changes require urban and land use planning responses to deal with:

- Pressure on ports and intermodal freight terminals and distribution centres as a result of urban encroachment, as formerly industrial-zoned land is opened up for commercial and residential use.
- Preservation of freight corridors not only to ensure that existing freight movements from ports and distribution centres to consumers can continue, but also to provide for future growth of road and rail networks to distribute freight to a growing population. The Infrastructure Australia paper *Corridor Protection: Planning and investing for the long term* covers this issue in detail.
- Growing urban 'sprawl', with residential estates being developed further from central business districts. This drives demand for freight deliveries further from the city. It also leads to distribution centres placed at the urban fringe having much greater travel distances and times for inner and cross-city deliveries. One operator has told us that they are considering the feasibility of a 'reverse hub and spoke system' to manage this. This entails one movement by large vehicle from the port to a distribution centre close the city centre, where the load is divided between smaller vehicles and then delivered across the metropolitan area. This will result in more light commercial and rigid vehicles on the road.

In addition, our cities operate over extended periods of the day and night, seven days a week. This has implications for retail and recreational venue hours of operation, public transport service provision and employment arrangements. These changes, are leading to increased traffic congestion, poor environmental and amenity outcomes and a limitation of the movement (and therefore productivity growth) in the freight and logistics sector.

There is a need to preserve network capacity and availability for the urban freight task, including the 'last kilometre', while also considering the needs of residents and visitors. The traditional patterns of urban freight operations have been changing throughout the world over the last two decades. We have seen the rise of eCommerce and 'just-in-time' inventory control practices to increase stock turns, reduction in working capital and an increase in the expected customer service levels. Consumers expectations have also changed. meeting these changed practices and expectations requires a constant movement of goods around our cities. Operators tell us they are more inclined to use smaller vehicles with less customers supplied by each vehicle, as this means any hold up affects a smaller number of their customers. Their future productivity gains may, they tell us, be more likely to come from making urban light commercial and small rigid truck movements more productive.

Cities are actively working to manage the resultant growing urban congestion. For example, Transport for NSW has undertaken a suite of trials to manage congestion levels with Sydney, largely prompted by closures required to build the light rail. These include a CBD courier hub, loading zone re-timing and freight deliveries outside peak hours.

Broader changes to the Australian economy, including reduced local manufacturing and increased importation and distribution of a wider variety of consumer goods has also changed urban freight patterns, reducing inward bound flows and increasing the Australian export task. Over 30% of the freight moved on Australian roads, moves within capital cities and urban areas, while only 18-19% of freight on roads moves between capital cities.

From a regulatory perspective, it should be noted that the provisions of the *Heavy Vehicle National Law* (HVNL), such as fatigue management or chain of responsibility requirements, do not cover many of these smaller vehicles and their drivers. In parallel, we see that adjusting for VKT, light commercial vehicle fatal crash rates are still 17 per cent higher per billion VKT than for light passenger vehicles (BITRE, 2017). We believe improving the efficiency and safety of the light commercial vehicle fleet, particularly within urban areas is an important consideration.

2.3 Port Corridor Pressures - Protecting Land, Sea and Air Connections

Key Points

1. The productivity of the land network has a direct impact on the productivity of waterside port activities and vice versa.
2. Increases in TEU numbers need to be handled through Australia's road and rail networks, regardless of the size of the ships transporting them into the port.
3. It is important that the community understand the impact of import demand on the freight task and the need to provide adequate freight links to service that demand.

The NTC is charged with improving the productivity, safety and environmental performance of Australia's road, rail and intermodal transport systems. The productivity of the land network has a direct impact on the productivity of waterside port activities and vice versa. With economic growth and a growing population, comes an increased volume of containerised cargo. While we acknowledge the issues with waterside activities, we will limit our comments to the pressures facing our landside transport networks as a result of the growing freight task.

As noted above, failure to preserve access corridors and to prevent changes to land use that constrain 24-hour freight operation around ports pose a threat to future viability of efficient port operations.

Industry stakeholders have told us that they face a growing list of constraints when operating in and around Australian ports. In particular, heavy vehicle access conditions around ports compete with urban infill, and high density development projects are being built in close proximity to major freight routes. There is a need to connect planning, approvals and policy decision-making under a more strategic approach. For example, noise and amenity related complaints from residents around the port precinct and the resultant supply chain inefficiencies, such as trucks having to travel further to redistribute their loads.

In addition, much of the focus around the sale of urban developments is understandably on the public transport links and roads for light vehicle passengers travelling to business centres. While these are very important considerations, there is a significant gap where it comes to the freight links available to new developments.

The Inquiry should consider whether there is a need to provide national guidance for local planning authorities to establish appropriate governance arrangements for integrated land use and transport planning decision making. These could cover the needs of passenger and freight movements strategically, ensuring their local land use plans support these needs and that they coordinate with adjoining planning authorities along freight routes. It should also be aligned with agreed national principles about integrated land use and transport policy.

3.4 Changing Technology

Key Points

1. *National Policy Framework for Land Transport Technology: Action Plan: 2016-2019* outlines the role that government intends to play in the technology space. It includes promoting awareness and acceptance of beneficial new technologies.
2. The Inquiry should consider whether there is merit in incentivising the adoption of new technologies such as blockchain to improve supply chain efficiency.
3. The Inquiry should also consider the recommendations of the recent Austroads report *Investigating the Potential Benefits of Enhanced End to End Supply Chain Visibility*.

National Policy Framework for Land Transport Technology: Action Plan: 2016-2019 (the Plan) outlines the role that government intends to play in the technology space. It says that Australian governments are strongly committed to encouraging the deployment of new transport technologies. In many cases the private sector will bring new technologies to market on a commercial basis, in order to meet demand from consumers. This may require little, if any, government intervention. However, it notes that in situations which require coordinated action, there may be a case for government intervention. For example, some emerging technologies may require government (and industry) to support enablers such as security systems or communications infrastructure. This should be a 'principles-based' approach that supports safety, security and privacy.

Using data to create knowledge with technology

Many transport operators and government agencies have a wealth of data. In an era where we have more data than we know what to do with, turning that data into knowledge is challenging. The CSIRO have developed a tool called a Transport Network Strategic Investment Tool ([TraNSIT](#)), which analyses transport and logistics options for agriculture to identify potential cost savings. They have also started to develop a data visualisation tool, which they are working to make available within the next one to two years. The tool is likely to have a web interface that would allow transport agencies to model cost effective transport options. It would also allow them to input their own datasets and undertake more localised/targeted assessments as required.

TraNSIT would be a valuable tool for the Inquiry to consider applying within the National Freight and Supply Chain Strategy.

One of the roles identified within the Plan, is for government to promote awareness and acceptance of beneficial new technologies. The recent October 2016 NTC Foundation paper *Land Transport Regulation 2040: Technology, trends and other factors of change* suggests blockchain technology could assist in achieving a secure and interoperable information-sharing system in transport and logistics.

Improved information flow along supply chains

The information exchange in a supply chain is as important as the physical exchange of goods. If the information required for customs clearances, identification of consignment content and destination, or funds transfer (as examples) is not available when required, delays in the movement of goods will occur.

Blockchain is a form of digital verification that reduces cost and complexity of cross-business information exchange, by using a digital distributed ledger based on the 'blockchain code'.

Blockchains can reduce the number of stakeholders involved in a transaction therefore reducing cost and saving time. Technologies such as blockchain would allow the whole supply chain to benefit from improved data by having a secure way of sharing information with each other, to identify and implement efficiency gains.

Maersk found that in 2014, just a simple shipment of refrigerated goods from East Africa to Europe can go through nearly 30 people and organisations, including more than 200 different communications among them (Tapscott, D. & Tapscott, A., 2016). According to the article 'Here's why blockchains will change the world':

The global savings in the shipping industry generated by the product have been estimated in the billions, whilst delivering improved accuracy and eliminating fraud at the same time. The new platform enables a reconciliation of digital records concerning just about anything in real time. (as cited in Ferrier Hodgson, 2017).

In May 2017, Data61 released a report *Risks and opportunities for systems using blockchain and smart contracts* (Staples et al., 2017). One of the key case studies provided in the report related to the agricultural supply chain. The report suggests that tracking physical assets through changes in ownership and handling can be recorded and communicated through data stored on a blockchain. This can provide improved logistics visibility and supply chain quality. Key events within the supply chain could also be linked to automatic payments with the use of smart contracts.

However, the report also notes that the path to adoption of a technology is not always clear, especially where many of the benefits are significant only with large-scale adoption because of

network effects, and where it is not clear whether the parties who benefit also bear the costs of deployment and operation. One of the key challenges will be to encourage adoption amongst the small and medium enterprises that make up a large majority of the road transport industry.

One of the findings of the NTC's *Who moves what where* project also relates to supply chain visibility. That is, that there would be value in promoting the benefits of sharing information across the supply chain. We would be happy to work on this with you, to ensure our work complements the Inquiry's findings about changing technology and the *National Policy Framework for Land Transport Technology: Action Plan: 2016-2019*.

The Inquiry should consider whether there is merit in incentivising the adoption of new technologies such as blockchain to improve supply chain efficiency. The Inquiry should also consider the recommendations of the recent Austroads report *Investigating the Potential Benefits of enhanced End to End Supply Chain Visibility*. This encourages use of one common label format to identify freight and one common file format to exchange data throughout the freight transportation process via an industry led adoption program. It also recommends the development of a National freight visibility strategy.

In terms of broader technological changes, the NTC has summarised some of the potential factors which may impact on the transport system in the October 2016 Foundation paper *Land transport regulation 2040: Technology, trends and other factors*. This paper identifies that, in addition to the specific impact of individual technologies and trends, we should also consider the cumulative impact of certain trends.

3.5 Key Drivers of Change for Use in Scenario Planning

Key Points

1. Consumer demand for convenience and new services, and data availability and sharing will clearly be two key drivers of change in the future. There may be many others which will influence certain supply chains to different degrees.
2. An NTC exploration of container supply chains identified many opportunities for improved productivity, but none of these were regulatory barriers, and would often have been best solved with industry leadership and cooperation.

The NTC has used scenario planning to stimulate strategic discussion about the future of the transport system and explore plausible futures which may require regulatory responses by government.

Further information on the NTC's scenario planning (including the scenarios, and foundation papers exploring trends and technology that might influence the future) can be found here: www.ntc.gov.au/topics/technology/land-transport-regulation-2040/

In 2016, the NTC, in collaboration with Container Transport Alliance Australia (CTAA) developed a series of case studies examining the container support chains, particularly focusing on ports. A summary of these case studies is attached.

The case studies found that, in all cases examined, the opportunity for efficiency improvement appears to be best seized by private operators – either current market participants, or potentially new entrants such as technology companies able to improve the integration of systems and services to customers.

3.6 A National Freight Performance Network

Key Points

1. The NTC has developed a National land transport productivity framework this has been included at [Attachment A](#) to our submission.
2. We encourage the Inquiry use our framework as a starting point to develop a wider freight and supply chain productivity framework, which can be used to measure the appropriateness of the initiatives included within the National freight and supply chain strategy.
3. The introduction of a Transport Satellite Account as part of Australia's System of National Accounts would improve investment decisions and start to build important trend data which would assist both government and industry to target their decision making to improve transport productivity.

It can be difficult to find up-to-date and comparable passenger and freight data for road and rail that can help us to identify where the opportunities are to improve productivity, safety and environmental outcomes. The NTC has been progressing two projects *Who moves what where* and the *National land transport productivity* project which have aimed to make it easier for both industry and government to identify blockages to productivity along the supply chain and highlight opportunities for improvement. We believe that these projects will go a long way to informing the development of a National Freight and Supply Chain Strategy and measuring whether the initiatives proposed within the Strategy have resulted in achievement of its objectives.

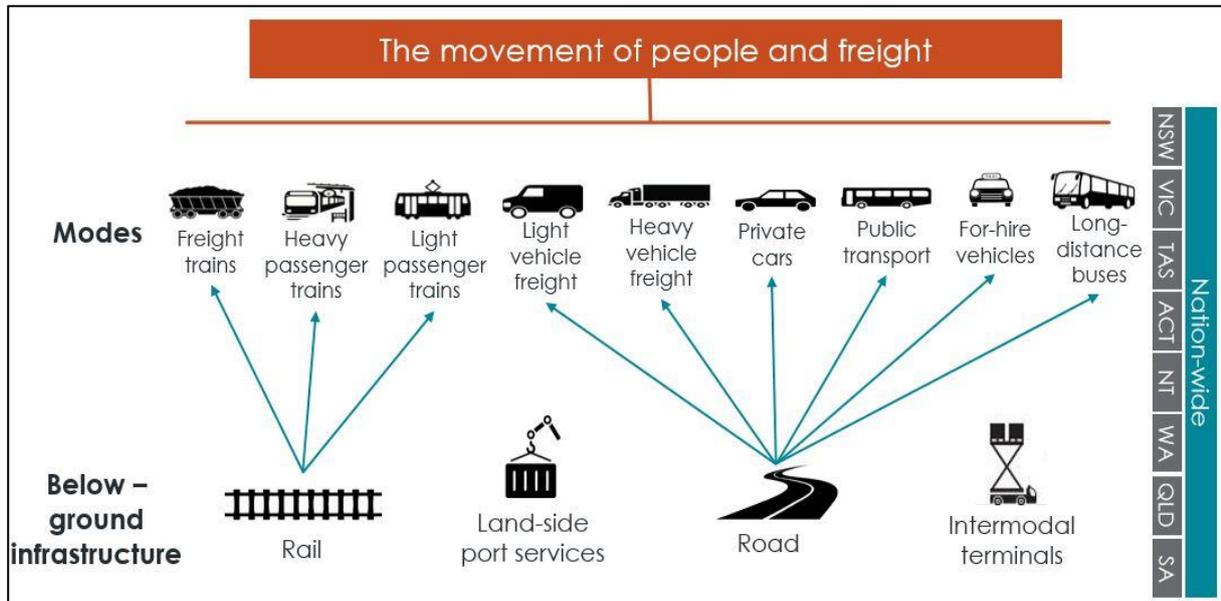
In late 2016 we commissioned HoustonKemp Economists to develop a methodology to estimate land transport productivity in Australia while considering data and information gaps. They produced a report for us in April this year. The report notes that many industry sectors (and some branches within the transport sector) use data to measure performance at an infrastructure level but that the embedded nature of transport modes in non-transport sectors means that we need a productivity framework that extended the measurements used in other sectors and which will provide significantly more granular results than produced in other productivity reports.

We believe that the land transport elements in Figure 2 could be used to measure productivity using a total factor productivity methodology – this is an index based approach that requires consideration of both outputs and inputs. Specific input and output data for each proposed dimension of land transport are set out in their report at Attachment A. The framework has been built in a 'modular' fashion, with measurements based around modes and networks, this means it is able to be expanded upon in future beyond land transport.

We will be proposing to Ministers in November this year, that there is sufficient data already collected to produce a *Land transport productivity network report* with a relatively narrow focus on freight and passenger movements across the road and rail networks (i.e. excluding inputs and outputs by modes). We will also propose a second expanded *Land transport productivity integrated system report* be produced. This report would use additional data to fill in information gaps and extend measurement of productivity to include data about the land-side port services and intermodal terminals to give us all a broader, more complete picture.

The *National land transport productivity framework* therefore proposes a methodology to estimate land transport productivity in Australia using both existing data and identifying areas where further data would refine the measurement. These measures would ideally be estimated at both State and Territory levels as well as at the national level, providing a comprehensive assessment of land transport productivity across Australia.

Figure 2 - Measuring the movement of people and freight



The proposed breakdown will provide greater insights as to the sources of improvements (or a worsening) in land transport productivity over time by allowing aggregate land transport productivity to be decomposed into its constituent components. It will also allow for a more detailed assessment of the impact on land transport productivity of policies or programs that typically target specific segments of the land transport system. In addition, given data complexities, this approach will also allow the measures to be incrementally developed as data becomes available over time.

The other related proposal we will put to Ministers in November this year, is that we consider introducing a Transport Satellite Account (TrSA). A TrSA would use the framework, concepts and definitions from Australia’s System of National Accounts, supplemented with additional transport related data, to produce a credible and comprehensive measure of the contribution of transport activity to the economy at the national level. This would not only cover the traditional ‘transport’ sector (covered by the ‘Transport, Postal and Warehousing’ data), but would also cover those other industries such as agriculture, mining and construction where transport takes place as part of a supply chain. It would also provide a framework for the development of state and territory transport satellite accounts in the future. The ABS is currently working to develop costings and an implementation plan for a TrSA.

Both of the NTC’s current projects have identified a commonly held view that a TrSA would be a crucial source of data which would significantly enhance the informational capabilities of the land transport sector. The development of a TrSA would also significantly add to the metrics available to feed into the National land transport productivity framework. We are suggesting that the Commonwealth Minister for Infrastructure and Transport investigate whether the arrangement in place for Austrade to provide funding to the ABS to produce a Tourism Satellite account (Austrade, 2016) is something that could be applied to a TrSA.

Investing in a TrSA would improve investment decisions and start to build important trend data which would assist both government and industry to target their decision making to improve transport productivity.

As a starting point however, we recommend the Inquiry use our framework to develop a wider freight and supply chain productivity framework, which can be used to measure the appropriateness of the measures included within the National freight and supply chain strategy.

Attachments

Attachment A: The National Land Transport Productivity Framework report

Attachment B: Container supply chain case study summary

References

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