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INTRODUCTION

Transport is the 'engine room' of the nation's economy. It gives working families better access to jobs, leisure, healthcare and education. It ensures products are delivered to supermarket shelves when we need them at the lowest cost.

Reforms to date have served transport users well, but the system is at risk of choking under a massive forecast increase in passenger and freight movement. Challenges include capacity constraints, urban congestion, emissions growth, slow progress on improving safety and labour/skills shortages.

A New beginning for transport sets out significant and decisive actions to address those challenges and keep the nation moving.

On February 29, 2008, Australia’s Transport Ministers supported the need for a coordinated national policy framework and plan. Individual Ministers took responsibility for developing aspects of a national transport policy:

- Economic Framework for Efficient Transportation Marketplace (NSW)
- Infrastructure Planning and Investment (VIC)
- Capacity Constraints and Supply Chain Performance (SA)
- Urban Congestion (VIC)
- Climate Change, Environment and Energy (WA)
- Safety and Security (QLD)
- Strategic Research and Technology (TAS)
- Workforce Planning and Skills (NT)
- Social Inclusion (ACT)
- Governance (Commonwealth)

The National Transport Commission (NTC) consulted closely with governments, peak bodies, business and individuals to develop the National Transport Policy Framework. This document summarises the key issues raised, with supporting analysis and firm recommendations.

Some stakeholders provided formal submissions, which are included as attachments. Other groups and individuals shared their thoughts and views as part of a targeted consultation process.

Road/transport agency Chief Executives participated in a national planning workshop in Melbourne on 11th February 2008. Business leaders, including major transport customers, also helped finalise the recommendations at a meeting in Sydney on the 18th February, 2008.

The NTC thanks all those who contributed their valuable time and energy to the development of the national transport policy and plan. Other stakeholders will have the opportunity to participate as this significant national reform agenda progresses.
While not all stakeholders share the same perspectives, it is apparent that the national transport challenges we face are common and the desire for decisive action is widely supported.

The message is loud and clear: The time for talking has to end. It’s time to deliver the integrated passenger and freight transport system Australia deserves.

1. ECONOMIC FRAMEWORK FOR AN EFFICIENT TRANSPORTATION MARKETPLACE

The creation of a market and the provision of pricing signals are crucial in achieving economic objectives. In simple terms this is about ensuring that the right transport mode is on the right infrastructure at the right time. The market framework consists of the creation of a pricing and regulatory framework as well as an institutional framework that is able to respond to pricing signals. Failures in the market (externalities) as well as government-determined social outcomes should also be addressed.

1.1 THE PROBLEM

An economic framework is the key method by which markets are able to generate efficient outcomes. Currently each mode of transport has a different economic framework which is able to deliver efficiency to varying degrees.

The roads sector does not have a complete market. Heavy and light vehicles are charged on a different basis although both share the same infrastructure and have cost implications on each other. The charging framework for the different types of users has different objectives – none of which revolve around efficient utilisation and sustainable provision of the road infrastructure. Light vehicle charges are generally viewed as a form of taxation whilst heavy vehicle charges are calculated to recover historical costs. As a result, both frameworks effectively consist of a number of cross subsidies. In addition, the revenues which flow from charges tend not to flow back to road expenditure. As a result, there is considerable uncertainty around funding (particularly in relation to maintenance) and a protectionist approach to asset utilisation is taken by road agencies. This has a significant impact on productivity. The Productivity Commission’s Inquiry into Road and Rail Infrastructure Pricing stated:

“Road user pricing differentiated by location, coupled with more commercially-oriented provision of road infrastructure … offer[s] the prospect of significant efficiency gains”

Leadership is key in this reform. Whilst COAG picked up much of the Productivity Recommendations, to date there has been little progress of heavy vehicle price reform. This is primarily due to a lack of understanding of the ultimate objective of the reform, the scope of the task and insufficient co-ordination.

The rail sector has a stronger market framework. However, stakeholder views would suggest the incentive framework around asset utilisation is insufficient. For example, the ARTC charging formula is geared towards long interstate trains and a commercial return, which disadvantages regional and port shuttle operations using the defined interstate rail network (including the future Southern Sydney Freight Line to Port Botany).
As scarce assets, rail terminals and train paths can be used by transport companies as a strategic lever to exert control of the supply chain and close the market to competition. Sd+D’s report Market Power and Logistics Chains said:

“the acquisition of a number of scarce industry assets, such as train paths and intermodal terminals, and the vertical integration of scarce assets … has the potential to undermine the medium to long-term competitive dynamic of the industry and limit Australia’s overall economic performance.”

Open access common-user rail terminals are, therefore, important to a competitive above-rail sector; however, significant impediments exist.

### 1.2 POSSIBLE SOLUTIONS

#### Short term:

**Develop national incremental pricing scheme for heavy vehicles**

Incremental pricing enables heavy vehicle operators to safely access parts of the road network at a level above the prescribed mass limits for that part of the network. Operators pay road asset owners an amount over and above the base charging framework (the “determination” charges) which reflects the additional cost to asset owners for allowing the enhanced access. This reform should be ready for implementation by the end of 2009.

**Next Steps**

The program for delivering the scheme should include:

- Research on road wear relationships above prescribed limits
- Research on bridge load capacity
- Review of the cost allocation methodology and its ability to be applied to direct pricing
- Development of a costing and pricing framework options
- Advancement of the PBS reform program
- Development of technological solutions to support the scheme
- Trial of a pilot scheme
- Cost benefit analysis of the preferred option
- Institutional arrangements which allow asset owners to charge incremental prices and to respond to demand on future investment (including maintenance)

#### Short term:

**Preferred model for direct pricing of heavy and light vehicles to replace the current charges methodology**
A direct pricing framework should reflect the financial and social cost of using infrastructure. It is intended to provide better pricing signals in relation to usage of the existing network as well as development and maintenance of the network for future use. The pricing signals will better ensure that users of the network take into account the true cost of their use when making trip decisions.

This may lead to alternate modes being used or better purchasing decisions on more appropriate vehicles (e.g., vehicles which produce fewer emissions or vehicles with better carrying capacity). In developing the framework it will be important to consider externalities. As many externalities are driven by light vehicles, it may be appropriate to consider a direct pricing framework for all vehicles (light and heavy).

The consideration of light vehicles is also important for asset optimisation and investment planning. Light vehicles are the predominant user and driver of investment. Failure to consider this group may lead to a suboptimal pricing framework which cannot deliver on its objectives of efficiency and productivity both of use and investment.

The outcome of this reform item is the identification of a preferred model for direct pricing by the end of 2010 with implementation being phased in from 2011. Implementation should be complete by 2014.

**Next Steps**

The program for delivering this reform should include:

- A clear statement of objectives and policies for road pricing
- Explicit consideration of pricing models to address externalities (e.g., congestion)
- Defining costs and developing a methodology for calculating the cost base
- Developing the road classification scheme
- Determining vehicle parameters and tariff structure of charges
- Road usage data to support the calculation of charges
- Assessment of risk
- Pilot commences 2009/2010
- Cost benefit analysis on the preferred option

**Short term:**

*Design and implement a research and data collection program to support direct pricing for vehicles*

Pricing for infrastructure is data intensive. The data currently collected is often inconsistent or incomplete and does not offer flexibility to be applied to a different pricing framework. Therefore, it will be important to identify the new data requirements to support a direct pricing framework sufficiently in advance to allow implementation.
In addition, a broader research program needs to be articulated to inform the development of direct pricing regimes and investment. The work of this stream should be aligned with that of strategic research.

**Short term:**

*Develop technology and fee collection systems for direct pricing*

Direct pricing is likely to require a technology solution to monitor vehicles and collate and calculate charges.

**Next Steps**
The program to develop the system should:

- Consider the technology used for pricing purposes internationally and domestically
- Establish principles for the development of a technological solution and fee collection system.
- Develop business requirements
- Develop conceptual solutions

**Short term:**

*Develop institutional framework options to support efficient transport markets*

A key finding of the Productivity Commission Inquiry was

“Current road funding arrangements potentially lead to inefficiencies and distortions in road management and investment decision-making.”

The inquiry was clear that institutional reform was essential to allow for efficiencies in road service provision and to ensure that the network was fully utilised. The current COAG Road Reform Agenda touches on this element of the Inquiry by requiring jurisdiction to consider examining alternative institutional arrangements to better link road freight revenues to investment and enhance decision making by 2010. However, given the role of all three levels of government and the national interest of ensuring appropriate frameworks are in place, it is appropriate to commence work immediately with a national framework.

The new framework will directly link into the work of Infrastructure Australia. It will be important that there is close coordination with the COAG Infrastructure working group to ensure consistency with the new institutional framework and commonwealth financing requirements and mechanisms.

The outcome for this reform is the specification of a regulatory, legislative and organisational framework to support a market based approach to infrastructure provision. It should include primary legislation to give effect to the preferred model. The framework will
be delivered in parallel to the pricing framework i.e. delivery of the model in 2010 with implementation commencing in 2011.

**Next Steps**

The program for delivering this reform should include:

- Appropriate service provider framework. Options include:
  - Creation of regional road service providers which incorporate the responsibility of road asset provision of both state and local governments. These should be statutory bodies which are subject to license conditions stipulated by government.
  - Corporatisation of existing transport agencies to allow debt funding, create financial incentives and minimise political decisions.
  - Greater access to vehicles to enable private sector participation in road service provision.

- Reform of financing arrangements: to ensure that revenues from users flow back to the assets.

- Government articulation of social requirements of infrastructure and a Community Service Obligation framework for both road and rail (specifying who can deem a CSO and who will pay for it). CSOs should be assessed across modes of transport to ensure the service is achieved in the least cost manner.

- Appropriate economic regulatory frameworks. Options include:
  - Creation of a single Transport Economic Regulator for road and rail and possibly ports (airports?).
  - State regulator oversight of road pricing.
  - ACCC oversight of road pricing.

**Short term:**

*Review a pricing and access framework for national rail and port infrastructure taking into account interaction with local rail services*

Optimal rail pricing should ensure an efficient allocation of resources. Consider a single approach to access regulation and pricing across all modes.

Current government policies for full cost recovery could deliver sub-optimal overall results. For example, lower access charges which drive higher network utilisation may deliver a lower overall ‘transport system’ cost (see Regional Rail case study).

Some stakeholders suggest the ARTC’s organisational policies and objectives need to be reviewed to ensure alignment with national transport policy; in particular:

- the current criteria for a return on investment; and
- the “one price fits all” formula for access.
For example, the ARTC charging formula is geared towards long interstate trains and a commercial return, which disadvantages regional and port shuttle operations using the defined interstate rail network (including the future Southern Sydney Freight Line to Port Botany).

**Access regulation**

As scarce assets, rail terminals and train paths can be used by transport companies as a strategic lever to exert control of the supply chain and close the market to competition. Sd+D’s report Market Power and Logistics Chains said:

“the acquisition of a number of scarce industry assets, such as train paths and intermodal terminals, and the vertical integration of scarce assets … has the potential to undermine the medium to long-term competitive dynamic of the industry and limit Australia’s overall economic performance.”

Open access common-user rail terminals are, therefore, important to a competitive above-rail sector; however, significant impediments exist.

The business model for common-user rail terminals is to capture volume within a geographic area which, in conjunction with investments in automation, drives down unit handling costs. Rail terminals are, however, unable to secure train paths (for hook and pull services) because ARTC will only issue train paths to train operators (who own competing terminals).

Freight customers also fear over-reliance on rail operators who control the train paths.

Customers and rail terminal operators should be able to secure train paths (using a model access agreement).

Government planning and infrastructure investment should also consider terminal access arrangements, which promote competition and maximise throughput.

**CURRENT MEASURES**

A considerable body of work has already been completed or is underway in support of, and following from the Productivity Commission Inquiry in to Road and Rail Infrastructure Pricing and the release of the COAG Road Reform Agenda in April 2007. This work includes

- The development of the Intelligent Access Program. This is a compliance based system which may be able to be utilised for pricing purposes.

- The Performance Based Standards reform which enables access to the network outside of prescribed limits.

- The commencement of a technical research program to better understand the road wear relationships between vehicles and road assets. This program is supported by Austroads and the NTC.

- The development of incremental pricing trials in five jurisdictions which test various features of incremental pricing including pricing frameworks, technology and institutional arrangements.
The commencement of consulting work to support direct pricing for heavy vehicles including:

⇒ Objectives and principles for direct pricing for heavy vehicles
⇒ A new cost base for heavy vehicle direct pricing
⇒ Pricing solutions for externalities
⇒ Community Service Obligations
Consistent with its election commitments, the Commonwealth Government has moved quickly to establish Infrastructure Australia (IA). The enabling legislation has been introduced into the Commonwealth parliament, Sir Rod Eddington has been appointed as Chair of IA, and the COAG Infrastructure Working Group (IWG) is progressing work to meet COAG’s March 2008 deadline.

Transport is one of four infrastructure areas included in IA’s mandate. Importantly, transport is the only one of these infrastructure areas over which the Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government (the Minister) exercises primary policy responsibility at a Commonwealth level. Policy responsibility for the three infrastructure areas resides with other Commonwealth Ministers. This provides the Minister with considerable scope to expedite work to reform national transport infrastructure policy and planning processes, ahead of the other policy areas.

2.1 THE PROBLEM

The problems in infrastructure planning and investment have been well documented in a plethora of reports. In summary:

Quantums:
There has been insufficient investment in infrastructure over a sustained period. Since the 1980s infrastructure investment has been declining as a share of public expenditure by all Australian governments. As a share of GDP government capital expenditure has dropped from around 7.2 per cent in the 1970s and early 1980s to 3.6 per cent in 2003/04. CEDA estimated that the backlog across all essential infrastructure was valued at $25 billion.

No clear long term plan:
Governments have demonstrated an absence of strategic foresight in terms of planning for infrastructure. Despite forecasts of significant growth in freight and personal traffic there is no national plan which sets out how demand will be met and the steps required to ensure that action is taken today to address the long term challenges – including how projects will be funded. In some jurisdictions strategic plans have been published but Treasuries have been shy about addressing the question of funding.

The growing problem of urban congestion is indicative of this – there is no cohesive national strategy to respond to this challenge. At the same time, public transport systems
in the major capitals are struggling to cope with rising passenger demand. This all points to a failure of public policy across all levels of governments.

As noted by a stakeholder:

A key issue in developing long term infrastructure to support freight and public transport task is effective integration with the various state and local government planning instruments. The reason why the Western Sydney Orbital was buildable is because most of the corridor was set aside by road planning authorities in the 1950s. Poor integration of infrastructure and planning has led to incompatible residential development infringing on transport corridors making further development either expensive (land acquisition, tunnelling) or politically unpalatable.

Policy and infrastructure investment are not aligned:

There is considerable scope to unlock major productivity and safety gains through the alignment of policy and investment. Relatively minor investment targeted at specific initiatives can complement regulatory reforms such as higher productivity vehicles (last mile investment etc). Further, as identified in the AusRAP Report (published by the Australian Automobile Association and state motoring clubs) there can be significant safety gains from minor investments such as wire ropes along roads.

Poor coordination across governments:

Institutional problems related to federal arrangements affect every element of the planning and investment. Issues such as poor alignment of planning laws across the three tiers of governments through to financing issues related to federal/state financial relations. There needs to be a fundamental review of how infrastructure, in particular, urban infrastructure is funded.

2.2 POSSIBLE SOLUTIONS

In proposing solutions to address the raft of problems identified, it is recognised that IA has a key role to play in addressing national infrastructure issues. That said, transport Ministers have a significant opportunity to demonstrate policy and intellectual leadership and to facilitate real reform in the area of infrastructure investment and planning.
**Infrastructure Priorities**

High priority infrastructure projects identified by previous studies and consultation to be considered by Infrastructure Australia include (but are not restricted to):

- Intermodal facility at Moorebank and Enfield (NSW)
- East-West Growth Corridor Integration (Victoria)
- Sydney-Melbourne-Brisbane rail upgrade
- Triplication of Dandenong rail line (Victoria)
- Southern Sydney freight line (NSW)
- Gladstone rail link (Qld)
- Second Sydney airport (NSW)
- Melbourne/Adelaide/Perth rail passing loops (SA)
- Oakejee port development (WA)

These projects were identified by stakeholders as national priorities. In presenting this list, it is acknowledged that IA will undertake a comprehensive audit and priority assessment process before making its recommendations to the Minister.

The commonality of views held by industry regarding these priorities is indicative of the urgent need to address capacity constraints in both passenger and freight networks. For example, construction of the Southern Sydney Freight Line will separate passenger and freight traffic, freeing up capacity on both networks.

**Short term:**

**Audit of nationally significant freight and passenger transport infrastructure to determine priorities taking into account work on supply chain mapping**

The Commonwealth Government is committed to completing an audit of nationally significant infrastructure within 12 months of the establishment of IA. The purpose of the audit is:

- to determine the adequacy, capacity and condition of nationally significant infrastructure, taking account of forecast growth; and
- to identify gaps, deficiencies and bottlenecks in the identified sectors as measured against expected future demand.

Consistent with COAG’s directions, the IWG is developing the scope of this audit, which will be undertaken of nationally significant infrastructure across transport, water, energy and communications.
In undertaking the audit of transport infrastructure, jurisdictions should be asked to provide:

- current and future forecasts and transport trends;
- current operating conditions, asset management plans (including past investment) and investment proposals; and
- strategy for meeting future demand.

The audit should apply to passenger transport (urban rail networks) as well as nationally significant freight infrastructure.

**Next Steps**

The Infrastructure Planning and Investment Working Group (IPIWG) should work closely with IA to facilitate the infrastructure audit.

**Short term:**

*Review airport planning, airport land use planning and approvals processes with emphasis on the interface with State and local government planning and environmental policies and requirements*

The Airports Act 1996 (the Act) establishes the framework for the regulation of the 22 leased federal airports. The areas of regulatory control cover leasing and management, ownership and control of airport companies, land use planning and building controls, environmental management, protection of airspace, control of on-port activities, pricing and quality of services, and access and demand management. Under the Act the Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government is the approval authority for developments on airport land.

Increasingly, airports are expanding into non-aviation uses such as large retail developments and commercial offices, or in the case of Perth Airport, brickworks. These developments are often contentious and attract considerable criticism from state and local government as well as the community and local businesses.

This criticism largely stems from the provisions in the Act that exempts these developments from state and local planning and environmental laws and policies. Further, there is no requirement for the owners of the airport to contribute to the upgrade of local infrastructure to support these developments (i.e. road enhancements, etc).

In recent years this issue has been raised at COAG and ATC without resolution. The key outcome of the ATC process was development of non-binding consultation guidelines for airport owners.

There continues to be considerable controversy surrounding these developments (for example, the proposal by Sydney Airport Corporation to build a ‘DFO’ at Mascot – for which approval was ultimately denied). Further, stakeholders have raised concerns both about the risk of non-aeronautical development impinging on aeronautical infrastructure and increased traffic congestion. With respect to the latter issue this affects passengers wanting to access the relevant airport as well as local businesses and residents, and has broader network effects.
**Airport Planning – Qantas’ Views**

**Non-aeronautical activity**

Consistent with the overarching objective of the Airports Act 1996, aeronautical activities must remain the primary focus of airports with adequate scope for expansion to cater for this in the future.

Although an aeronautical development may sit under within the parameters of an airport’s Master Plan and the Act, it may have the potential to impinge upon aeronautical infrastructure development. This could hinder aviation and tourism activity over the longer term.

A recent case was Sydney Airport’s proposal to develop a DFO and bulky goods despot, notwithstanding the inability projected under its Master Plan to provide enough parking spaces for aircraft due to the limited development footprint.

The primary purpose of airports must be maintained, where aeronautical infrastructure is available to accommodate increasing traffic volumes, new large aircraft types and the supporting aviation services such as engineering, catering and freight.

**Ground Access**

Road access at Australia’s major airports, particularly in Sydney, Brisbane and Perth has become increasingly constrained. As traffic increases, the road network suffers from severe bottlenecks and the ability to access the airport becomes increasingly constrained.

The development of airport land for non-aeronautical purposes can also result in difficulties with respect to road access. Canberra Airport is a case in point, where the establishment of the Brindabella Business Park has created significant traffic.

While some of these shortcomings are the responsibility of airport operators, governments have an important role to play in areas such as cooperative planning of road infrastructure around airports.

While the current legislative provisions remain, the Commonwealth, State and local governments fail to deliver integrated planning outcomes. These issues could be reviewed in the context of the IA work program as agreed by COAG which included “scope for streamlining of planning and approval processes”.

**Next Steps**

This issue should be referred to the OCAG Infrastructure Working Group for consideration. Given that the Commonwealth Government retains all sovereign power with respect to airport planning, this would be the most appropriate forum in which to deal with this matter.

**Short term:**

*Review of the interface between Commonwealth and State/Territory environmental approval processes*
Under current arrangements the State/Territory Governments are primarily responsible for undertaking the environmental assessment process for major projects. However, in certain circumstances the Commonwealth Government may also have a role.

The Commonwealth’s approval powers are under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act), projects require EPBC approvals when the project raises a matter of national environmental significance.

Matters of national environmental significance identified in the Act as triggers for the Commonwealth assessment and approval regime are:

- World Heritage properties;
- National heritage places;
- Wetlands of National Importance (Ramsar wetlands);
- Nationally threatened species and ecological communities;
- Migratory species;
- Commonwealth marine areas;
- Nuclear actions (including uranium mining).

To streamline approval processes the Commonwealth has entered into bilateral agreements with most States. Bilateral agreements allow the Commonwealth to rely on specified environmental impact assessment processes in the relevant States when it assesses actions (projects) under the EPBC Act.

Bilateral agreements are in place between the Commonwealth and Queensland, Western Australia, Tasmania, New South Wales and the Northern Territory. Bilateral agreements are being progressed with Victoria, South Australia and the Australian Capital Territory.

While these agreements are in place, stakeholders have continued to raise concerns regarding the time required for planning approval to be provided. It is important to note this issue is not about the outcome of the approvals process (in terms of conditions attached to approvals etc) but rather the time taken to obtain a Commonwealth decision – usually after a project has already been subject to a lengthy state government review process.
For example:

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<th>Southern Sydney Freight Line (SSFL) – ARTC proposal:</th>
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<tr>
<td>May/June 2006</td>
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<td>January 2008</td>
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It is recognised that environmental assessment processes are complex, however, the concerns raised by stakeholders warrant review, particularly in light of IA’s commitment to streamline planning processes.

**Next Steps**

This matter should be referred to the COAG Infrastructure Working Group for consideration and resolution. Given that a final decision regarding reform in this area will be the responsibility of the Commonwealth Minister for Environment, Heritage and the Arts, there needs to be early and active engagement with this portfolio.

**Medium term:**

*National framework for development of strategic terminals (intermodal, inland ports, shipping ports and airports) including land use planning and access arrangements*

Current approaches to infrastructure planning are mostly piecemeal and reactive. An over-reliance on the free market risks a network of poorly planned and uncoordinated rail infrastructure and terminals. For example, competing projects in Wodonga (LOGIC and Ettamogah) and in Sydney’s south-west (Minto and Ingleburn).

Long-term planning should support a sustainable network of ‘nationally significant’ rail infrastructure and terminals, with adequate capacity and infrastructure links. This includes freight-only rail corridors (untangling freight and passenger networks), high productivity vehicle road networks and adjacent logistics parks.

Ports operate as intermodal facilities and must also be fully integrated with land transport networks. Planning to meet forecast trade growth is not simply a matter of accommodating more ships, but a complex task incorporating national and local transport networks.
The Meyrick Report notes that: “this situation is further complicated by the commercial competition for land use in the coastal city areas and the lack of integrated long-term land use planning between the various federal and state government agencies particularly regarding land adjacent or close to existing port facilities.”

The Australian Shipowners’ Association\(^2\) argue that national coordination of infrastructure planning is currently deficient. A number of national priorities were recommended in the Neville Report, including an Australia-wide set of standards for the approval of dredging projects, and establishment of a Critical Port Infrastructure Fund.

A transparent commitment to long-term forward planning by governments should be supported by regulation to prevent the attrition of transport corridors due to urban encroachment or alternative land use (driven by re-assessment of land values). Protected corridors are essential to ensure the urban amenity problem is not relocated elsewhere.

**A National Ports Strategy?**

Ports’ policy is complex.

There are strategic issues related to Commonwealth and State/Territory ports policy, ports planning, access both from land and sea, duplication of resources, port ownership and administration, the domination of the wharves by two stevedores, terminal ownership and access to terminal space for third parties, as well as infrastructure investment and who should pay.

Competition between ports exists to a limited extent in Australia, owing to the twin tyrannies of distance and land transport cost. Australian ports compete with each other to attract cargo and shipping calls (inter-port competition), and competition exists within ports (intra-port competition) to handle, store and load cargo.

A cohesive, efficient and productive framework for the ports industry could consider the following:

- national priorities for ports planning (eg: a top 10 - 15 bulk and top 5 container ports list, where strategic infrastructure planning and investment is given the highest focus);
- trade forecasts and what role ports will play in the future;
- ports role to enable a viable coastal shipping service; and
- long term planning towards the creation of super hub ports on the east and west coasts of Australia.

Other countries are actively pursuing their own National Ports Strategies (e.g. US, Canada, Sweden), while others (e.g. UK) appear to have abandoned that as an option.

The US national ports strategy will apply a national-level urgency to infrastructure and cargo flow at ports now managed at municipal or local port authority level. Sweden has taken a similar approach with its National Ports Strategy. It has decided to focus its future investment and plans for a national freight transport system on the “Top 10” or “A List” of its

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50 or so ports. Smaller ports, such as Uddevalla and Varberg, have formed a pact with Gothenburg to market what collectively is a 17-terminal entity.

In contrast, the UK Government appears to have abandoned plans for a National Ports Strategy, instead committing to a market-oriented approach to ports policy.

New Zealand is just starting to address how to rationalise 13 ports, where the local regional council has majority ownership and no desire to see its local facility play a subordinate role to a neighbouring port.

These issues could be considered in the context of developing a national framework for strategic terminals.

Next Steps

- Identify priorities based on forecast growth;
- Develop options for locations of terminals and opportunities to replace truck movements with rail;
- Develop a proposal for consideration by ATC.

This work should be informed by the outcomes of IA’s infrastructure audit the supply chain mapping process (discussed next chapter).

Medium term:

*Competing infrastructure investment options should be modelled and assessed transparently using agreed forecasts and scenarios, and incorporating social policy objectives*

New approaches to investment decision making are essential if Australia is to meet current and future infrastructure challenges. In addition to addressing concerns about ensuring that competing projects are fairly assessed – that is using the same criteria, it is important that the decision making process takes a holistic approach in terms of looking at how infrastructure, regulation and other policy levers interact to deliver outcomes.

The National Guidelines on Project Appraisal set out good practice in cost benefit analysis. However going forward, more innovative models of project assessment need to be developed.

The Australian Livestock Transporters Association provided a submission (Appendix A) which sets out new model for investment and reform. The proposed model assesses projects based on five key outcomes:

- A cost effective productivity figure for the project;
- Quantified project benefits for road safety;
- Demonstrable emissions reduction for the project;
- Skilled labour efficiency dividend; and
- A rate of return for the project.
All of these outcomes are quantitative and preclude subjective qualitative judgements. ALTA’s model should be considered in the context of an overall review of infrastructure investment criteria.
A NEW APPROACH TO INVESTMENT – AN INDUSTRY PERSPECTIVE
‘Better freight outcomes for productivity, safety, skills and the environment’

A new investment and reform model with examples from Australia’s meat and livestock industry
Introduction

The new investment and reform model and supporting case studies in this chapter have been developed by representatives from the Australian meat and livestock sector, in the hope that a productive new model will be adopted to deliver maximum cost-effective productivity benefits – as well as road safety, skills and emissions dividends - to all of the major industries that rely on efficient freight to grow the Australian economy. The approach outlined here could be utilized by any sector of the Australian economy that sees opportunities for efficiency and growth in freight and logistics reforms. Case studies are offered to illustrate the new model’s potential. Finally, some of the structural and cultural change implications – for both industry and public sector infrastructure agencies – are also discussed.

This study shows just how much the meat and livestock sector relies on efficient freight to underpin its success. Rational infrastructure investment in this sector - in a way that always aims for maximum productivity, safety, skills and emissions reductions benefits - is the way to secure the future. The approach is realistic. However, these objectives will only be reached if there exists a genuine commitment from Government and industry to work together efficiently and cooperatively to deliver results. Notably, the way forward involves structural reforms to the way road agencies at all levels approach their task. The study offers recommendations on practical ways forward in this respect.

In the 21ST century, the various arms of the Australian meat and livestock sector are working and planning in alliances, to make our industry more prosperous, safer and environmentally-aware. We look forward to Infrastructure Australia taking a fresh approach to delivering a more productive, cooperative approach to infrastructure investment and complementary regulatory reforms to achieve these same aims.

The meat and livestock sector commits itself to working with Governments at all levels to make Infrastructure Australia a true success for the Australian community and it hopes Government will commit themselves to involving industries like ours through a fresh new approach to infrastructure investment.

The meat and livestock industry – vital to the Australian economy

The meat industry remains Australia's largest rural employer and our biggest agricultural export. Without even including the hundreds of thousands of farmers involved in livestock production, the meat industry beyond the farm gate is estimated to employ around 110,000 Australians directly each year³.

The industry has a wholesale value of around $18 billion dollars a year⁴. Although recent drought years have challenged the industry, initiatives like the advent of large scale feedlots for cattle and sheep (a development reliant on efficient transport) have stabilized production through dry times – in fact, the red meat industry produced 3.24 million tonnes of meat and meat products in 2006 - a record achievement for Australia⁵. The future is bright - but never guaranteed.

Looking forward: a quality product unrivalled in world markets

The prospects for Australia as a quality provider to world consumer markets are excellent. As major countries in our region such as China and India become more prosperous, their demand for quality red meat products increases. Australia is well poised to take advantage of these key markets in the future. The Australian meat product leads the world in eating quality and health status. Australia’s isolation and its strict quarantine system have meant that Australian meat products are free of many diseases common elsewhere – this affords premium status and market advantage. Combined with this advantage, world-leading Australian livestock production and processing research and development has allowed great advances in product quality and reliability, while the whole of chain traceability and biosecurity of Australian livestock is unparalleled.

³ Australian Meat Industry Council estimate: The abattoirs sector in Australia employs approximately 55,000 people directly. It is estimated that this number again are employed in associated industries, including livestock transport, shipping, equipment manufacture, insurance, banking, laboratories and other ancillary industries.

⁴ ABS Australia at a Glance report 2007. Figures quoted are FY2004-05

⁵ ABARE Summary of Australian Statistics for Meat 2006 figures.
An export industry has been built on efficient infrastructure and logistics

Australia has to date been a world leader in the efficiency of its production and distribution of meat products. The level of this efficiency relative to world standards is staggering: while Australia has just under 3% of the world’s cattle herd, it is only just behind Brazil as the world’s second largest exporter of beef products, while Argentina, a major world producer with a cattle herd size almost twice the size of Australia’s, exports less than half the amount of beef product that Australia does. Such achievements are due in no small part due to the logistics efficiency afforded by transport and infrastructure reforms such as higher mass limits for loaded livestock trucks, larger combination vehicles such as triple road trains and the relatively more efficient turnarounds provided by all steps in the production and transport process.

Relative efficiency over our rivals is never guaranteed

Infrastructure efficiency is always relative to developments elsewhere in the world. Notwithstanding the health and traceability advantages of Australian product, it is always very sensitive to global price shifts, and productivity improvements in infrastructure and road reform, particularly in rival export countries like Brazil and Argentina, can erode Australia’s world competitiveness very quickly.

In relative (global) terms, Australia already moves its meat products efficiently. But given the much larger livestock numbers held by our major export rivals, even minor infrastructure efficiency dividends in such countries could well have a very challenging effect on the price-based market position of Australian meat exports. The lesson is clear – continuous infrastructure improvement and innovation must be viewed as mandatory, if Australia is to retain and build its position in major meat export markets.

3 reasons why efficient freight is so important for the sector

As noted by the Productivity Commission’s Chairman in 2006, “efficient freight transport is vital for Australia’s relatively small, trade-dependent economy, especially given our geography and widely-dispersed population and industry”. Meat and livestock transport is a highly-attenuated example of this statement, for the following reasons:

1. Meat and livestock has the highest transport cost of any rural commodity

Of all the rural commodities in Australia, meat and meat products are the costliest in transport terms, largely because meat is a heavy commodity. It is possible to calculate the total amount of transport that industries use when producing outputs. These calculations reveal that road transport services account for just under $9 of the cost of every $100 of ex works meat and meat products produced (Figure 1). This is the highest transport cost of any agricultural commodity.

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6 Analysis developed from Meat and Livestock Australia export and herd size statistics 2006-07


8 This total requirement is calculated by adding together the direct use of transport by an industry and the transport services that are embedded in the inputs themselves (so called indirect requirements). Source figures are found in Australian Bureau of Statistics 2004, Australian National Accounts: Input-Output Tables—Electronic Publication, 1998–99, publication number 5209.0.55.001.
2. Meat and livestock is a relatively more trade-exposed sector

Transport inefficiencies are magnified in the meat and livestock sector operating environment, due to the relatively higher trade exposure of rural Australia. ALTA extrapolation of Federal Department of Agriculture and Fisheries and Forestry statistics suggests that the meat and livestock sector is up to 40% more trade exposed than urban Australian economies. 9

3. Meat and livestock’s rural production base increases freight sensitivity

The journey from ‘paddock to plate’ typically involves far longer distances than for other industry sector products. Multiple long-haul journeys are involved from paddock production on farm, to large feedlots or saleyards, to processing (and onward transport as chilled meat product, post-processing) or to live export from a sea port. The major ‘infrastructure’ of the meat and livestock sector – farms, feedlots, saleyards, processing facilities - are highly dispersed across great distances. The map below reveals that these major infrastructure sites are generally not in line with the major urban freight hubs considered ‘strategic corridors’. This is a challenge for infrastructure efficiencies when the bulk of end-consumers lie in major Australian cities or in export markets overseas:

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9 The online publication at [http://www.daff.gov.au/market-access-trade/trade_facts](http://www.daff.gov.au/market-access-trade/trade_facts) asserts that Australian agriculture is strongly export-oriented, with ‘around two thirds of the commodities produced on farms exported each year’. This research also asserts that in the overall Australian economy, ‘20% of all jobs rely on exports, whereas 25% of regional jobs (ie 25% more than the urban equivalent) rely upon exports’. By attributing a representative value to the ‘unknown’ percentage in this analysis (ie what percentage of jobs in non-regional sectors rely on exports) the ALTA considers that regional jobs are in the order of 40% more trade-exposed than urban jobs.
Figure 2: A dispersed freight task: key meat and livestock-related infrastructure in Australia

Source: Developed from Meat and Livestock Australia 2005 fact sheets listing the most significant abattoirs, saleyards and feedlots in the industry, according to records of annual throughput and direct employment levels.

Case studies: the road ahead for a better investment and reform model

Four case studies follow. They are all actual cases. They offer a range of infrastructure and regulatory reform barriers, from simple infrastructure bottlenecks, to investments not being complemented with progressive regulatory reforms. In all cases, the bottom line opportunity costs to the community have been calculated.

Why is the ‘bottom line’ emphasised in these case studies?

Bottom line, quantifiable benefits are the only way to enable rational investment and regulatory reform decisions. In the past, Government assessments of infrastructure and regulatory reforms have been largely qualitative. They have dwelt on the cost of the investment, but not on any systematic, thorough, market-based examination of the profits and dividends that the project would return. This lack of rigour has been a recipe for bureaucratic inertia - a lack of timely decision-making and sub-optimal investments and reforms have not delivered the community what they promised.

The case studies below abandon the old approach. The approach taken for each case study has been identical: each study assesses 5 key outcomes. All of these outcomes are quantitative, to promote accuracy and confidence in the investment process and preclude subjective, qualitative judgments. The 5 assessment criteria for each case study are:

1. **A cost effective productivity figure for the project** increases flowing from this reform – where relevant, this includes accurate cost assessments of the infrastructure upgrades required for these reforms to take place
2. **Quantified project benefits for road safety.** Freight efficiencies often bring safety benefits as positive externalities. By taking a quantifiable approach to the investment/reform opportunity, these benefits can likewise be quantified.

3. **Demonstrable emissions reductions for the project**—similarly for greenhouse emissions, a commitment to a quantitative approach to infrastructure investment and reform can yield reliable information about the size of associated greenhouse reductions. Emissions can nowadays be reliably calculated based on the agreed National Greenhouse Accounts factors and fuel efficiency per kilometre.

4. **Skilled labour efficiency dividend.** Completing freight tasks more efficiently can often mean lessening the numbers of skilled workers required for the task. Where this benefit exists it is measured and offered as a positive investment/reform dividend.

5. **A rate of return for the project.** To guide investment priorities, it is essential that quantifiable investment opportunities are expressed in terms of an internal rate of return. This is entirely practical. It also avoids time consuming and unreliable qualitative judgments being pursued about the merits of individual investment and reform opportunities. Rates of return take into account Government-generated and authorised cost estimates of infrastructure upgrades required for the investment/reform, reconciled against the predicted productivity benefits.

**NB:** All inputs to these case studies have been examined in detail and can be considered reliable. Further more detailed costing and data assumptions are available for scrutiny in this respect.
CASE STUDY #1 – SMALL BRIDGE, BIG PROBLEM
The ‘hidden costs’ of an old rail bridge across a country road

Summary: A low (4.4-metre) bridge that can’t accommodate modern (4.6m-high) livestock transport vehicles passing underneath it. Nothing is done about it, but the resultant 220 km detour to complete the livestock freight task costs the meat and livestock industry $1,055,000 every year in higher transport costs to service 2 of the largest feedlots in Australia and a major stock saleyards. The bridge costs just $500,000 to fix. Apart from productivity loss, the community suffers the safety risks from 550,000 extra truck kilometers per year on its roads because of the detour required by the freight task. This translates to an extra 1.139 million tonnes per year in greenhouse emissions. Collectively, drivers work thousands of extra fatiguing extra hours to get the job done.

<table>
<thead>
<tr>
<th>Cost of problem to the community</th>
<th>$1,055,000 p.a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of detour in additional truck mov'ts</td>
<td>550,000 kms’ worth p.a</td>
</tr>
<tr>
<td>Extra (avoidable) emissions generated (tonnes)*</td>
<td>1.139 million p.a</td>
</tr>
<tr>
<td>Total cost to fix the problem**</td>
<td>$500,000</td>
</tr>
<tr>
<td>Skilled labour efficiency dividend***</td>
<td>3 fewer full-time drivers p.a</td>
</tr>
<tr>
<td>Rate of return for this investment****</td>
<td>211.1%</td>
</tr>
</tbody>
</table>

*Using National Greenhouse Accounts factor of 2.9 kg of emissions per litre of fuel burnt; assumes average fuel efficiency of 1.4 kms per litre
**Official local council engineering estimate of total project cost.
***Reflects the saving in full time drivers per year by taking away the extra driving caused by the problem – assumes 50 driving hour working week
****Derived from net present value of project, assumes 30 year life of upgrade, applies a social discount interest rate (ie loan rate) of 7%, consistent with mid-range rate recommended by NSW Treasury project economic appraisal best practice; for further information on this approach see:

CASE STUDY #2 – INTEGRATING THE ‘LAST MILE’

What happens when freight vehicles and their ‘supporting’ freight infrastructure aren’t integrated efficiently across jurisdictions

1,898 kms into a 1,900 km freight task – then a 3-hour delay and detour because the final 2km of road hadn’t been integrated to support the vehicle that does the job!

Summary: The final 2 km stretch of a 1,900 km triple road train journey from Broome to the Geraldton cattle yards has never been upgraded to accommodate the vehicle doing the job. This forces these vehicles to incur lengthy delays: triple road trains inbound from Broome – 20 hours into their journey and literally within sight of their destination – have to ‘break’ up’ their trailers into a smaller double road train configuration (ie they dispense with one of their 3 trailers) for the final 2 km journey into the Coolina cattle holding yards. Cattle transported out of the yards to the live export port of Geraldton face the same obstacle. The extra transport costs alone cost the local industry $750,000 a year, but the road will cost just $150,000 to upgrade for triple road train access. An extra 2,250 working hours per year (driving, trailer coupling and stock handling – equivalent to one full-time driver paid for a whole year) are created by this infrastructure bottleneck – on top of an already long and fatiguing journey for drivers and animals alike.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of problem to the community</td>
<td>$750,000 p.a</td>
</tr>
<tr>
<td>Cost of detour in additional truck mov’ts</td>
<td>3,312 kms p.a</td>
</tr>
<tr>
<td>Extra (avoidable) emissions generated (tonnes)*</td>
<td>6,859 million p.a</td>
</tr>
<tr>
<td>Total cost to fix the problem**</td>
<td>$150,000</td>
</tr>
<tr>
<td>Skilled labour efficiency dividend***</td>
<td>1 fewer full-time driver p.a</td>
</tr>
<tr>
<td>Rate of return for this investment****</td>
<td>500%</td>
</tr>
</tbody>
</table>

*Using National Greenhouse Accounts factor of 2.9 kg of emissions per litre of fuel burnt; assumes average fuel efficiency of 1.4 kms per litre

**Official local council engineering estimate of total project cost.

***Reflects the saving in full-time drivers per year by taking away the extra driving caused by the problem – assumes 50 driving hour working week, 48-week working year.

****Derived from net present value of project, assumes 30-year life of upgrade, applies a social discount interest rate (ie loan rate) of 7%, consistent with mid-range rate recommended by NSW Treasury project economic appraisal best practice; for further information on this approach see:

CASE STUDY #3 PART 1 – HOW PRACTICAL ROAD FREIGHT REFORMS BENEFIT THE MEAT AND LIVESTOCK INDUSTRY DIRECTLY

Simple, ‘whole of task’ infrastructure upgrades and complementary regulatory reforms support a meat processor’s ‘bottom line’ and in turn, deliver safer roads and ‘greener’ freight solutions

Summary: A meat processor runs feedlots and a processing plant operation in southern QLD. This operation is a major regional employer and creator of export wealth.

The Newell Highway: A Vital freight network for this operation

The plant draws its livestock via stock transport vehicles from several feedlots located from southern NSW to southern QLD. All these feedlots are served by the Newell Highway. In economic terms, at the margins, the company’s overall efficiency relies heavily on the relative freight efficiency of the Newell Highway and its ‘feeder’ networks. (See earlier in this submission to understand just how heavily meat processing relies on efficient freight).

Higher Mass Limits – A road reform with direct benefits for processors

‘Higher Mass Limits’ is a term that describes trucks that carry slightly more mass, in return for fulfilling certain higher operator compliance standards to ensure road wear and road safety outcomes are not compromised. The Higher Mass Limits network is already available on some freight routes across the country. Higher Mass Limits on a B-double truck provide an extra 6 tonnes of freight (livestock) to be loaded – an efficiency dividend of more than 10% over ‘standard weight’s vehicles. At present, the HML network doesn’t extend to the freight task that the company in question uses to support its operations (ie the whole freight task – from the feedlots, through the Newell Hwy and to the processing plant). By allowing the current B-double livestock vehicles that it contracts access to Higher Mass Limits, the company generates remarkable freight savings. Happily, this also equates to far less truck movements on this network per year, millions fewer tonnes of greenhouse emissions and fewer skilled drivers for the task.
On the meat processor’s freight network, allowing B-double livestock transport vehicles like this access to Higher Mass Limits generates $54m in gross productivity benefits, 1.23 million kilometres less truck movements on the network annually and 2.5 million tonne annual saving in emissions.

FAST FACTS: CASE STUDY # 3 PART 1

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of problem to the local meat and livestock sector*</td>
<td>$3.638m p.a</td>
</tr>
<tr>
<td>Extra truck movements (kms) on road because of barrier</td>
<td>1,113 extra mvmts p.a</td>
</tr>
<tr>
<td>Extra (avoidable) greenhouse emissions generated**</td>
<td>1,244m tonnes p.a</td>
</tr>
<tr>
<td>Skilled labour efficiency dividend***</td>
<td>3 fewer f.t drivers p.a.</td>
</tr>
<tr>
<td>The benefits ****</td>
<td>$51.97m</td>
</tr>
</tbody>
</table>

NB: Accurate expenditure estimates to create an HML network are not available for this case study, the rate of return for the project cannot be forecast with accuracy. However, as a guide, initial advice from NSW Road Traffic Authority suggests that total costs are unlikely to exceed a one-off capital investment of $15 million. This order of costs would suggest the HML upgrade would deliver very substantial net benefits.

NB: This study uses general analysis only that has not included any input data that could be considered of a commercially sensitive nature to the processor in question. It is the opinion of the ALTA that a more detailed, fully-confidential commercial study using such inputs is likely to yield greater efficiencies still. However, the above figures can be considered reliable, if modest, estimates.

*That is, the annual freight saving gained by allowing HML access for this processor’s freight task.

**Using National Greenhouse Accounts factor of 2.9 kg of emissions per litre of fuel burnt; assumes average fuel efficiency of 1.4 kms per litre

***Reflects the saving in full-time drivers per year by taking away the extra driving caused by the problem – assumes 50 driving-hour working week, 48-week working year.

****Expresses the annual freight saving as a perpetuity (i.e. the amount that the community could afford to spend and still be better off than accepting the current inefficiency), applying a social discount interest rate (i.e loan rate) of 7%, consistent with mid-range rate recommended by NSW Treasury project economic appraisal best practice; for further information on this approach see:


NB: The ALTA provides this as an illustration of the benefits that would flow from the project but acknowledges that a more accurate benefit figure would be expressed as an annuity over the working life on any enabling infrastructure investment (i.e rather than forever). However, the lack of detailed infrastructure upgrade estimates (as noted above) has prevented the ALTA providing such an annuity representation.
CASE STUDY #3 PART 2 – GETTING THE BEST FROM FREIGHT INFRASTRUCTURE: THE ‘MULTIPLIER’ EFFECT OF SMART REGULATORY REFORMS

The efficiency, safety, skills and emissions benefits for our community and our economy if complementary vehicle access reforms are matched to progressive infrastructure investment decisions

Summary
Granting Higher Mass Limits to Case Study #3 Pt 1 (see above) delivers huge benefits. But even more benefits remain available: matching a more efficient road network with the most efficient livestock transport vehicle sees the Higher Mass Limit efficiencies multiplied greatly. The Australian B-triple vehicle (photo above) represents world-leading safe and efficient road freight technology. The introduction of B-triples to the company freight task at Higher Mass Limits would deliver around 23% more efficient freight – more freight moved by less vehicles - a safer, less labour-intensive, greener and more profitable outcome for everyone.

On top of efficiencies in case study 3 part 1, B-triples at HML would mean:

- Extra freight savings of $3.282 million per annum for same freight task
- Further greenhouse reductions of 0.9 million tonnes per annum
- 1,644 less truck movements per annum for same freight task
- A further 4 fewer full-time drivers per annum required for same freight task
- The benefits - $98.826m (that is, the amount the community could afford to spend to still be better off than living with the current situation –the freight saving as a perpetuity (see the notes to case study 3 part 1 for a discussion of this approach)

Is there an endorsed, whole-of-Government view on this sort of problem?

‘Prescriptive regulations that restrict particular types or configuration of heavy vehicles from using certain roads should be replaced, where possible, with performance-based regulations to promote flexibility, innovation and greater productivity in the road freight sector’.

COAG Nat. Reform Agenda: Competition Reform April 2007, Agreed recommendation 12.9, p.19
The case studies prove the merits of the approach. But how does it happen at the institutional level? A proposed model is as follows:

<table>
<thead>
<tr>
<th>PRIVATE SECTOR ROLES</th>
<th>PUBLIC SECTOR ROLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Syndicate</strong> Form industry alliances to pursue better infrastructure investments and reforms (ie freight providers and freight innovators working with freight users)</td>
<td><strong>Set parameters for (industry’s) project proposals</strong> Agree the deliverables and format that industry will be expected to identify and conform to when presenting infrastructure investment and reform proposals to Governments.</td>
</tr>
<tr>
<td><strong>Build project proposals</strong> Identify priority infrastructure investments and linked regulatory reform targets, based on customer (industry) growth requirements, leading edge logistics innovations and freight operator advice.</td>
<td><strong>Build shopfront for project proposals</strong> Develop a vehicle for industry to present proposals to Government.</td>
</tr>
<tr>
<td><strong>Project Revenue and Dividends</strong> Develop quantified costings of the likely opportunities that the investments and reforms would bring in terms of productivity savings, freight safety, skilled labour and emissions dividends.</td>
<td><strong>Project Rate of Return Analysis</strong> Direct road agencies to deliver accurate costing and compliance implications to allow a net rate of return and dividends to be calculated for each industry project.</td>
</tr>
<tr>
<td><strong>Project Rate of Return Analysis</strong> Receive accurate costing and compliance implications from road agencies for nominated projects –develop a net rate of return and dividends for the project, in consultation with road agencies.</td>
<td><strong>Prioritise Investments and Reforms</strong> Agree a process for receiving completed rate of return business cases, then for ranking projects based on the rate and/or <em>quantum</em> of returns.</td>
</tr>
<tr>
<td><strong>‘Fast-track’ the best for delivery</strong> Establish a clear hurdle rate and <em>quantum</em> of return, above which level all eligible projects (ie the best of the best) must be priority-funded.</td>
<td><strong>Fund</strong> Examine a range of funding opportunities, where rates of return can be established over the life of the investment.</td>
</tr>
<tr>
<td><strong>Fund</strong> Examine a range of funding opportunities, where rates of return can be established over the life of the investment.</td>
<td><strong>Reflect Project Growth in Revenue</strong></td>
</tr>
</tbody>
</table>
Projections
Where robust rates of return exist, funds are released and project begins, reflect such projects’ productivity growth and values in Treasury forward revenue estimates. Amongst other things, this step will allow a more accurate Treasury revenue base to be generated for future infrastructure investments.

From here to there: making the new model work
Cultural change
Apart from the obvious institutional changes required, the new model described in the previous table places significant cultural challenges to those involved in freight infrastructure investment and regulatory reform. And these challenges are not just for public sector agencies.

Industry must become an active part of the solution
For the new approach to work and for valuable project proposals to be forthcoming from the private sector, alliances between freight operators, the industries that rely on freight and those in the business of freight innovations is essential. Historically, industry has not worked in this fashion – for the wider industry reliant on freight, involvement on freight and logistics reform is only a matter of trying to establish the most cost-effective and reliable logistics arrangements for one’s company. Similarly for freight operators, the focus has often been less than strategic – few concerted efforts have been made to engage customers in the strategic reform process. Finally, industry innovators and researchers occupy a different field – they are not involved in any concerted alliance with their potential customers and operators to drive reforms.
A new approach based on alliances will be at the centre of generating effective business cases for investment and reform. Industries need their future intentions reflected in the planning. Freight operators need to have their expect advice heard on what is and is not possible. Innovators need to be present to ensure that multi million dollar investments and reforms are not based on obsolete technology and therefore sub-optimal productivity outcomes).

Government agencies must look to foster and enable industry efforts
Significant cultural change is required for the public sector to deliver the new model. Agencies involved in infrastructure investment and regulation must be restructured and resources redeployed to respond promptly and effectively to industry requests for costings and compliance information that would underpin industry project proposals. A process for receiving, processing and refining and ultimately prioritizing investment cases for funding will require much effort and change.
The strongly commercial focus of the new model may be a difficult hurdle for some public sector personnel to overcome. Self-evidently, it is only with both the revenue and the expenditure present that genuine business cases for investment and reform will be established. But at present, road agencies are not culturally or structurally disposed to this approach – the meat and livestock sector is one of the only industry groups to be adopting the first steps of this new approach in some jurisdictions. Its experience to date is that there is a high degree of distrust within agencies for industry groups that want access to information on the costs of particular investments to inform bottom line investment decisions.
In summary the new model offers an opportunity to place Australia’s infrastructure investment and regulatory reform on a much more robust, rational and transparent footing – one better adapted to respond quickly to leading edge innovation and market trends. It will afford Governments a far more reliable view on what investment choices will deliver the greatest benefits to the community. It will unlock the latent knowledge and innovation of the market. However, the cultural and structural reforms that will be required to bring about such a system will require significant resolve over a considerable period of time.
3. CAPACITY CONSTRAINTS AND SUPPLY CHAIN PERFORMANCE

3.1 THE PROBLEM

Globally, freight operations have shifted from a modal approach to ‘whole of supply’ chain (mine to port, paddock to plate etc). This is increasingly reflected in corporate structures. Major operators, domestically and internationally, are acquiring assets or entering into strategic alliances to develop vertically integrated businesses which closely reflect the supply chain.

Despite these developments, major impediments to improved supply chain collaboration continue to exist. This can be attributed to a range of factors including:

- poor logistics chain visibility – most companies are only working one step up and one step down the supply chain;
- competitive tension – tight margins (around 2 per cent) in the freight transport industry have created a culture where companies don’t share information;
- differing regulatory models applying to parts of the supply chain; and
- multiple supply chain participants – for example, there are over 11 different ‘types’ of participants involved in the Port Botany supply chain. Within each of these categories there are multiple operators (eg: 20 shipping lines and consortia regularly service Port Botany).\(^\text{10}\)

While industry has called for governments to take a supply chain approach to policy and infrastructure development, there is only limited knowledge of how various supply chains operate.

3.2 POSSIBLE SOLUTIONS

**Short term:**

Better understanding of supply chains and shared infrastructure bottlenecks across different supply chains through mapping ‘nationally significant’ supply chains and networks (including passenger, minerals and export grain)

- including a review of co-ordination of planning and operations in complex national and international supply chains, regulation, pricing in access regimes, customer behaviour, and performance against best practice

**Medium term:**

Recommendations (regulatory, operational and frameworks) to optimise supply chains

Policy and investment decisions in respect of these chains need to be informed by rigorous and objective information. This currently does not exist.

COAG previously requested that a stocktake of logistics chains of national importance be undertaken (June 2005 and February 2006). A report was submitted to COAG but it is not consistent with the comprehensive approach recommended in this plan.

Queensland and NSW have undertaken reviews of specific supply chains (land transport issues at Port Botany and Goonyella Coal Chain Capacity Review). However, a more systematic approach is required to enable governments to better understand how supply chains work in practice, the variations between them and what if any role there is for government to intervene to improve productivity.

In undertaking this mapping exercise, the focus should be on supply chains of national significance. With the exception of the Port Botany review, export supply chains (in particular, Dalrymple and Newcastle) have attracted most attention; as evidenced by the establishment by the former Prime Minister of the Export Infrastructure Taskforce. This ignores the critical role of Australia’s major container ports such as Sydney and Melbourne in contributing to overall national productivity, as well as the broader role of these supply chains in urban congestion. Passenger supply chains have received at best limited attention from policy makers.

In terms of freight supply chains, the Productivity Commission identified that the freight task is dominated by the transportation of:

- Bulk commodities – i.e. coal, iron ore and agricultural commodities including broadacre crops, sugar and livestock. These traffics dominate in terms of tonnes;
- Import containers/urban distribution - i.e. consumer goods, cars etc that are imported or produced domestically. These products dominate in terms of kilometres, not tonnes, and therefore use more of the network. This traffic, which is primarily road
Based, includes both heavy and light commercial vehicles and needs to be considered in the context of urban congestion.

- Interstate trade - i.e. intermediate inputs and final consumer goods. These tasks involve traffic between the capital cities (i.e. Melbourne – Sydney) and between major industrial centres (Gladstone – Newcastle).

Mapping of supply chains involves:
- A spatial element (i.e. origin – destination of the traffic);
- An organisational element (i.e. who are the participants in the supply chain);
- Government/regulatory elements – this maybe an economic regulator (ACCC or state based regulator), infrastructure owner (road, port or rail) and government policies that impact on the supply chain.

The import/urban distribution freight tasks are likely to be the most complex to map in that there are multiple destinations. An additional consideration in mapping this traffic is the need to take account of changing distribution patterns and role of government in this. For example, in Sydney, final distribution centres are now largely located in the south-western, western and northern areas of Sydney, rather than around Port Botany. This can be attributed to the availability of relatively cheap land in these areas, as well as higher value uses for land around the Port. The critical issue is what planning and financing processes are in place to ensure that there is adequate infrastructure to connect these areas to the Port and to ensure that urban congestion is effectively managed.

Various jurisdictions have already undertaken studies which could be used to inform the mapping process.

**Next Steps**

This four stage process sets out the key tasks that would need to be undertaken. The detail of each of these stages will need to be developed by the Ministerial working group.

**Stage one: Identify nationally significant supply chains and prioritise work program**

For each of the market segments identified above, the key supply chains should be identified. Each jurisdiction should be in a position to inform this process. Cross border supply chains must be identified.

Nationally significant supply chains are those that materially impact on the national economy or society. It is not defined by state borders or Constitutional responsibilities.

In terms of priorities, it is proposed that the mapping exercise be undertaken in the following order:
- Import containers/urban distribution and passenger supply chains
- Bulk commodities; and
- Interstate freight.

Urban supply chains are the most complex and given the urban congestion issues, impact on the majority of the population. Further, many of the bulk supply chains are vertically integrated (BHP Billiton and Rio Tinto), with the key policy issues for government being competition policy rather than efficiency/productivity.
Stage two: Mapping

For each identified supply chain, the following information needs to be collated:

- Physical movement of traffic (spatial) i.e. origin – destination of the traffic (internationally and domestically), current tonnages, forecast growth etc;
- Participants in the supply chain (organisational) i.e. who and ownership – the latter is to ascertain level of concentration by single owners;
- Government and regulatory processes i.e. role of the economic regulators (i.e. access arrangements, port charges etc), infrastructure owners (road, port or rail), proposed government strategies, freight plans, any policies (including those outside the transport portfolio) that impact on the efficient operation of the supply chain.

This process will initially be a desktop exercise. All jurisdictions will need to provide any studies that will inform this work (ie: the major ports corporations have undertaken studies regarding tonnage forecasts, movement of traffic out of the port etc). Reports by the various freight councils, as well as key industry groups could also inform this work. Freight policies/strategies will also need to be reviewed to determine what proposals there are for future infrastructure or other investments in these chains.

In undertaking this work, there needs to be close liaison with Infrastructure Australia. The data arising from the national infrastructure audit will be an important input into the mapping process (i.e. freight forecasts, adequacy of infrastructure etc).

Stage three: Public Consultation

A public consultation process should be undertaken to seek views on:

- the accuracy of the outputs of stage one and two;
- identification of key issues; and
- options to resolve these issues;

Stage four: Recommendations

The working group will develop a submission for consideration by ATC on possible reforms as well as clarifying governments’ role in the supply chain in terms of policy levers and opportunities to improve efficiency. In developing this submission, there should be close liaison with the Infrastructure Planning and Investment Working Group and the Economic Framework for an Efficient Transportation Marketplace Working Group.

Short term:

Commonwealth Government to work with relevant state/territory governments and the private sector to facilitate improvements in supply chains. Three supply chains have been identified for possible immediate action:

- Port Botany;
- National grain transport review;
- Livestock.
As noted there have already been a number of reviews undertaken into various supply chains across Australia, with work progressing to turn recommendations into action.

Given the implications for national productivity, there is a significant opportunity for the Commonwealth Government to work with relevant state governments and private sector operators to facilitate improvements. This is not about the Commonwealth subsuming the role of state governments; rather it is about taking a leadership role and working collaboratively with other Commonwealth agencies, the relevant state agencies and the private sector to facilitate the desired outcomes.

Such an approach could be formalised into a program; for example, Supply Chain Improvement Partnerships. As a first step, two opportunities have been identified Port Botany and the grain industry which would benefit from Commonwealth Government involvement. These two opportunities could serve as pilots – to trial various approaches to supply chain improvements. The outcomes of these could be used to inform the development of a longer term program, as well as an opportunity to disseminate the learnings across the transport and logistics sector.

**Short term:**

*Commonwealth government to facilitate a new partnership between itself, the NSW government and the private sector to improve the efficiency of the logistics chain servicing Port Botany*

Port Botany is a major infrastructure asset of national significance, for both the imports of finished products and the export of regional produce. Port Botany currently processes over 1.5 million TEU per annum and this will rise to 2.5 million TEU by 2013, without any additional land footprint at the Port.

Continuous investment and improvement in Port operations will be critical to keeping capacity ahead of demand. Port operations on the ocean terminal are strategically important in their own right, but their interface with both the road and rail transport infrastructure, and operators, is central to the efficiency of the Port.

The Australian Government is directly involved at Port Botany (through Customs and Quarantine services) as well as involved in the transport interface, particularly through ARTC and the Metropolitan Freight Network (MFN) and the South Sydney Freight Line (SSFL).

In the context of supply chains, the distribution patterns flowing from Port Botany area demonstrative of the complexity of urban supply chains – with multiple destinations from a single point. The efficiency and effectiveness of the whole logistic chain through the Port – involving ships, stevedores, road and rail operators, forwarders, customs agents, exporters, importers, etc – has a direct impact on the national economy.

It is therefore appropriate for the Australian Government to take a more formal role in ensuring the overall efficiency of the Port Botany logistics chain. The Australian Government is ideally placed to facilitate a new partnership between itself, the NSW
Government and the private sector to improve the efficiency of the logistics chain centered on Port Botany.

Next Steps

- NSW Government, through the Office of the Coordinator General of Infrastructure, to provide advice to the Ministerial Working Group on its proposed approach.
- The Working Group will then assess its level of involvement in this project and how best to disseminate the key findings.

**Short term:**

*Commonwealth Government to establish a national review of grain transport arrangements*

The grain transport task is highly variable due to the current drought. Instability related to climate change is exacerbating this variability. This is expected to continue and has significant implications for the long term viability and capacity of transport and grain handling facilities.

Rail is an important participant in the grain supply chain due to its ability to transport large tonnages over long distances – largely used to transport wheat for export to the port. Road transport tends to be used for shorter hauls.

The dominant task on the rural rail network in NSW and Victoria is grain. However, the lack of consistency in the ‘baseline’ grain task reduces the commercial appeal to rail freight operators. PN has recently announced that it will sell/close or downsize its grain operations in Victoria and NSW. This has been attributed to the drought and the volatility of the grain task.

The use of rail for the transport of grain is seen by state governments as desirable. This is for a number of public policy reasons, including the desire to preserve regional road networks. To attempt to secure these outcomes, various state governments have undertaken policy initiatives – often at considerable public expense - with varying success.

A key issue is the complexity of the supply chain, relating to ownership. The industry is in a transitional phase from largely public ownership to predominantly private ownership, giving rise to competing commercial tensions and fragmented investment priorities amongst participants. It is expected that the industry will eventually rationalise, resulting in greater levels of integration within the supply chain.

During this transition, government has maintained some involvement, largely through financial or regulatory support of rail lines and roads. However, there are claims that public infrastructure has degraded or is at serious risk of degradation and this would jeopardise. This is creating commercial uncertainty.

There have been numerous studies of grain and regional rail transport more generally. These include:

- Grain Industry Advisory Council (NSW Government) 2004 – review of the grain supply chain in NSW
• Single Vision (Funded by Grains Australia Development Corporation) – 2008 – National Grains Transport Infrastructure Study
• Eyre Peninsula Grain Transport (South Australian Government) - 2003
• WA Grain Freight Network Review (Western Australian Government) - 2007
• WA Grain Freight Network Infrastructure Investment Road Rail Rescue Package (Western Australian Local Government Association) - 2007

In addition, the Productivity Commission has reviewed and made recommendations in respect of rural grain networks in two inquiries. These recommendations have been largely ignored by governments.

Critically, the grain transport issues must be considered in the context of the broader challenges confronting the grain industry. At its meeting on 29 February 2008, the Primary Industries Ministerial Forum identified four challenges facing the sector. Infrastructure was specifically identified as being a key influence on agricultural productivity growth. Ministers agreed that they will settle priority actions to address these challenges.

Further it was agreed that data would be collated on “the full value chain of agricultural production in the economy, from paddock to plate, and assess the productivity opportunities through the value chain.”

The Commonwealth Government is committed to establishing grain taskforces in WA and NSW ($6 million has been allocated for these two taskforces) However, each of the major grain-growing jurisdictions (WA, SA, NSW and Victoria) are facing common issues and are likely to require a common solution. Further the major participants in the grain industry generally operate national businesses.

Despite this, there has never been a national review of grain transport issues.

Given the collation of interests in national grain productivity issues, transport Ministers from the relevant states and the Commonwealth should seize the opportunity to take a leadership role in respect of grain transport policy. A national review could be part of a broader structural reform package for the grain industry.

A national grain review would provide an opportunity to comprehensively assess these issues and develop a long term approach. The emphasis is on long term – this review would not focus on the short term (12 months – two years) grain haulage issues that may arise in individual jurisdictions. Rather the focus is on long term industry reform.

Next Steps
The Chair of the Capacity Constraints and Supply Chain Performance should liaise with the Commonwealth Minister for Infrastructure, Transport, Regional Development and Local

11 Progress of Rail Reform (1999) and Road and Rail Freight Infrastructure Pricing (2006)
Government to establish a review – supported by experts from each state. An independent chair could be appointed to lead the review on behalf of the Commonwealth Government. Proposed terms of reference are provided below.

**Proposed Terms of Reference**

A strategic national review be undertaken into long term transport arrangements in the grain sector. The review will cover NSW, Victoria, Western Australia and South Australia.

In focusing on the long term it is not intended that the review resolve immediate (within the next 12 months – 2 years) grain haulage issues that may arise in individual states. These issues are matters for those jurisdictions.

The review assess and make recommendations regarding:

1. the land transport logistics chain for bulk grain in Australia, including:
   - current transport patterns and reasons for these;
   - condition and state of public sector controlled infrastructure;
   - expected future condition of such infrastructure (current policy).

2. arrangements for government involvement in this logistics chain:
   - pricing and regulation of roads and road transport;
   - procurement of rail services and rail infrastructure;
   - issues for jurisdictional attention and issues for ATC attention.

In undertaking this review, consideration will be given to the various reviews of grain industry transport issues previously undertaken, the recommendations of those reviews and implementation to date. These reports include, but not limited to:

- Grain Industry Advisory Council (NSW) 2004 – review of the grain supply chain in NSW
- Eyre Peninsula Grain Transport (SA) - 2003
- Recommendations regarding grain transport contained in the Productivity Commission’s inquiry reports Progress of Rail Reform (1999) and Road and Rail Freight Infrastructure.

The working group should write to the Commonwealth Minister for Agriculture, Fisheries and Forestry advising of the review and offer to regular update the Primary industries Ministerial Forum on progress. A full briefing will be provided once the review is completed.

**Short term:**

*Work with the Australian Livestock Transporters Association (ALTA) to review of livestock supply chains*
The National Transport Commission has already commenced work with ALTA to improve the efficiency of livestock supply chains in the Northern Territory. This work should continue and the key learnings disseminated.

**Next Steps**

- The working group to work with the NTC and ALTA to progress current supply chain improvements currently underway and consider opportunities for boarding the scope of this work

**Medium term:**

*Review of Commonwealth and State linkages and funding of groups such as ALC and freight councils*

The ongoing role of the ALC and freight councils needs to be reviewed in the context of this national transport plan. A review of the state-based freight councils is currently underway under the auspices of the Commonwealth Department of Infrastructure. The Working Group should consider the draft papers from the current review of freight councils and submit recommendations to May 2008 ATC.
4. URBAN CONGESTION

The continued growth of the economy is dependent on the free flow of goods and people around Australia’s transport network. Congestion is a consequence of and a barrier to economic growth.

Providing a supply side solution by constructing more roads and widening existing roads is neither practical nor sustainable in the long term. Efforts need to be focused on the more efficient use of available road space to maximise existing infrastructure use and extend the load (volume of traffic) over a longer period of time.

This plan will address the need to level out the peaks and troughs of demand for road space over any given 24 hour period. A range of measures need to be identified and implemented in the short term.

78.5% of vehicle travel in cities is by passenger cars; only 1% of travel is by articulated truck. Transferring discretionary private travel and peak hour commuting from single occupant cars to alternative mass transit options – bus, heavy or light rail, ferry – can potentially deliver the largest reduction in road congestion.

4.1 THE PROBLEM

The Bureau of Transport and Regional Economics (BTRE) has estimated that urban congestion will cost a total of $20.4 billion by 2020. Combined, Sydney and Melbourne carry the majority of those costs (over 65 percent).

With over 64 per cent of the population living in the nine capital cities, many Australians are forced to live with congestion for at least some part of the day. The challenge for governments is to find a level of congestion which ensures infrastructure such as roads and railways are well utilised, but also minimises the cost and inconvenience of unreasonable delays in travel time.

Forecasts show that the projected growth in the freight task will most adversely affect urban centres. The forecasts suggest that most of the growth will be on road, despite some shifts to rail for port shuttles. Urban freight tonnages are forecast to increase by 70 per cent by 2020. Key influences include commodity demand, substitution and growth of imports and trends to reductions in inventory.

13 Austroads (2008), Best Practice on Improving Level of Service for Freight Vehicles, On-Road Public Transport, HOV and Emergency Vehicles
Passenger travel in Australia’s cities will also continue to grow. Population growth and increases in per capita travel, linked with rising per capita incomes, are the main reasons for growth in passenger travel.

“Australia needs a more focused passenger transport agenda, or we will see urban congestion and mobility constraining the national economy and diminishing the quality of life in cities.”


As Australia’s growth prospects are strongly geared to competitive international exports, and given our highly urbanised population, the imperative of lifting our response to the economic pressures imposed by urban congestion on key transport corridors is at least as great as for other developed economies.

4.2 POSSIBLE SOLUTIONS

National leadership and a range of integrated and coordinated responses are required to ensure congestion does not become a barrier to international competitiveness.

Measures to provide better transport and travel outcomes will require the community and industry to fundamentally rethink their travel choices. Each of the proposals discussed below will result in recommendations for approval by the Australian Transport Council.

**Short term:**

*Identify and adopt Australian national service standards for public transport based on measurable performance indicators, co-ordinated with land-use planning and population forecasts, drawing on overseas experience.*

The attractiveness of a mass transit system compared with private transport is an important factor in addressing congestion. Service standards are a critical factor in making mass transit attractive and ensuring good value for money.

Service standards for public transport are in place in a number of countries. Identifying and adopting standards based on these proven benchmarks should be progressed as a priority.

Congestion is a national priority because of its capacity to undermine social, environmental and economic objectives. Therefore the Commonwealth government needs to support state and territory governments in addressing congestion. Actions must be undertaken in the full knowledge of congestion levels, and the ability of the mass transit systems to deliver acceptable (national) service levels in each city.

The Australian Transport Council has previously established arrangements to improve urban congestion data, modelling and performance information for decision-making and
reporting to COAG on progress by June 2008.\textsuperscript{14} Austroads has an urban congestion indicator that monitors the impact of the arterial road system on the level of service to road users.\textsuperscript{15}

These existing sources of information should allow rapid action to improve public transport.

**Next Steps**

The Urban Congestion Working Group (UCWG) should:

- Identify appropriate national service standards for public transport for approval by the Australian Transport Council.
- Identify the appropriate Commonwealth role in bolstering the use of public transport.

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"Public transport is a national issue and the Commonwealth has an important strategic role to play… Western countries, with the exception of Australia, typically obtain targeted financial support for public transport from their national government."


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**Short term:**

*Develop a national action plan which will collate the individual government responses to congestion, including pricing options, intelligent transport systems and funding priorities*

State and Territory governments already undertake a range of measures, using pricing, public transport and intelligent transport systems, to address congestion and are well placed to assess the success of those measures. A national action plan will identify the most effective means of coordinating investment to resolve the greatest bottlenecks in our transport network.

**Next Steps**

The UCWG should, with the assistance of relevant stakeholders and experts:

- Develop a national action plan to coordinate the implementation of best practice congestion management solutions by Governments and private road and transport operators. The plan will include proposals to:
  - Undertake demonstration projects of time-based variable pricing with toll road operators on a revenue neutral basis. The projects will illustrate the potential of pricing mechanisms to spread traffic demand more evenly through any given day,
  - Identify ways in which Commonwealth infrastructure funding arrangements can support state and territory actions to reduce congestion.

\textsuperscript{14} COAG communiqué

\textsuperscript{15} Austroads: [http://algin.net/austroads/site/index.asp?id=117](http://algin.net/austroads/site/index.asp?id=117)
o Identify applications of currently available intelligent transport systems (ITS) to assist transport network users make more effective choices.

**Short term:**

**Review existing taxes and subsidies that can adversely affect congestion**

- The current FBT concessions for car use that provide incentives to increase annual km driven should be completely phased out within 3 years

There are taxes and subsidies developed with other social or economic objectives in mind that directly impact upon congestion. These concessions require reconsideration in light of the growing harm congestion may do to Australian cities, the environment and the health and safety of Australians. A specific priority is the current Fringe Benefits Tax concession for car use that provides an incentive to increase annual km driven. Each of the taxes and subsidies should be reviewed in the context of their impact on the social, environmental and economic transport objectives.

Taxes and subsidies that require review include:

- Suspending reductions in the real level of fuel tax
- Bring forward changes to the fuel excise from the full implementation date of 1 July 2015
- Remove all tax incentives to drive (FBT and investments in business assets)
- Remove tax incentives to fly, including duty free allowances
- Remove tax incentives to over-invest in fossil fuel extraction.

As most of the taxes and subsidies were conceived for public policy purposes unrelated to transport, it is important that the final proposal be framed as a cabinet level document and that the ATC endorse the final proposal to be presented to the Commonwealth cabinet by the Commonwealth Minister.

**Next Steps**

The UCWG should, with input from Treasury and other relevant central agencies:

- Undertake the review and develop a proposal to be endorsed by ATC for consideration by the Commonwealth Government.

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"The [Parliamentary] Committee recommends the Australian Government review the current FBT concessions for car use with a view to removing incentives for greater car use and extending incentives to other modes of transport."


"The [Parliamentary] Committee recommends that the government review the statutory formula in relation to fringe benefits taxation of employer-provided cars to address perverse incentives for more car use."


**Medium term:**

**Funding for improved mobility**

- **Commonwealth government funding to be allocated to initiatives associated with improved mobility of people and freight, rather than funding solely for fixed infrastructure.**

Commonwealth government funding programs including AusLink and Roads to Recovery have focussed largely on infrastructure funding to support certain modal objectives. The new policy objectives in the National Transport Policy Framework are neither mode specific nor infrastructure specific. Funding arrangements should be made consistent with these objectives.

Funding decisions should consider the efficiency with which the infrastructure is used, rather than being limited to the construction and upgrading of the physical asset. This would include allocation of funding to support the establishment of projects which will allow more efficient use of transport infrastructure to achieve national economic, social and environment objectives.

This may include concurrent consideration of a number of small projects which collectively may have the ability to unlock synergies and opportunities for economic development in the national interest.

**Next Steps**

The UCWG should, with substantial assistance from the Commonwealth Government, develop new funding criteria for AusLink and Roads to Recovery based on the vision and objectives in the National Transport Policy Framework.

These criteria should be endorsed by ATC prior to consideration by the Commonwealth Government.
Medium term:

**Funding for improved public transport**

*Sustainable public transport initiatives should be eligible for funding under Commonwealth government funding programs. Performance indicators (consistent with government objectives) should be established to determine how to assess the eligibility of these proposals.*

The National Transport Policy Framework proposes a series of transport objectives applying equally to public and private transport. The focus is on mobility and ‘a safe, efficient, reliable and integrated national transport system’. Any transport proposal that is consistent with the stated objectives around safety, environment, efficiency, etc should be eligible to compete for funding.

There are currently National Guidelines on Project Appraisal that set out good practice in cost benefit analysis, project evaluation, etc. While the document remains relevant into the future, it needs to be enhanced with guidelines on how projects should demonstrate adherence to the national transport policy objectives. While good cost benefit analysis incorporates values for safety, greenhouse gases, etc, the final figure for any proposal will tend to hide the facts about how the proposal meets the policy objects regarding safety and other issues.

“Governments have to weigh up the relative merits of different projects to develop a programme of investments consistent with government priorities and funding constraints”


“We could also modify the formula to define it [value for money] as Patronage Service Effectiveness per dollar of government support outlaid.”

(Henscher)

**Next Steps**

A working group needs to ‘drill down’ into the objectives and clarify what performance indicators are needed to demonstrate whether and to what extent an objective is met. This will help the Commonwealth make truly transparent decisions about funding of proposals to improve mobility. In addition, the Commonwealth Minister will need to take the appropriate action (legislative or administrative) to re-cast the funding programs. This will help the
Commonwealth identify which projects will provide benefits to meet national economic, social and environment objectives.

**CURRENT MEASURES**

Historically, management of congestion has largely been characterised by a ‘supply side’ response; that is, building new roads, and more recently, building new train lines. While this has established a modern, world class system of road links, most jurisdictions already realise it is unsustainable. Major new links are already congested and population and economic growth will ensure demand continues to exceed supply.

The response has in many cases been quite innovative. The use of intelligent transport systems with real-time travel and service arrival times benefit road and rail users. Roadside route information is available in many jurisdictions and is continuing to improve. The widespread application of proven means to improve traffic flow on high volume roads, such as highway ramp monitoring, dedicated or time-based bus and freight lanes and intelligent transport systems, need to be more widely implemented.

Public transport has an important role as a niche provider of urban passenger transport. Most States have recognised the importance of public transport by setting targets for increased patronage. 14% of adult Australians choose public transport when travelling to work and study: this figure has remained constant for the 10 years between 1996 and 2006. Anecdotally public transport demand has increased recently due to rising fuel prices.

**Other Areas to Investigate**

There is a growing body of national and international research that demonstrates that alternative modes of transport, in combination with management strategies to encourage more efficient use of existing capacity (road pricing/parking policies) tends to provide greater economic benefit than expanding highways or adding rail lines.

Going forward, policy makers will need to consider levers such as:

- road pricing; in conjunction with
  - targeted investments in all forms of road and rail transport, including separation of key passenger and freight traffics;
  - better integration of land use and transport planning – including higher density developments around major transport hubs; and
  - technology – which enables better use of existing infrastructure capacity.

**Pricing**

In its congestion report, the Victorian Competition and Efficiency Commission observed that, “The absence of a mechanism for ensuring that road users take into account the

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social costs of their trip decisions (particularly in peak periods) is an important contributing factor to congestion in Melbourne.” It also noted that in the absence of pricing signals reflecting the actual costs (both private and external) of vehicle usage, provision of additional public transport services could not, on its own, significantly reduce congestion.

“The development of a more coherent user-pays approach to urban transportation is necessary.”


Charges specifically intended to reduce congestion are in use in cities around the world, including London and Stockholm. These charges are often controversial as they price an externality previously left un-quantified. Many European cities are introducing complementary ‘low emissions zones’ (and associated charges) to deal with the related externality of air emissions. The issue of externalities and pricing is addressed more comprehensively in the section on Economic Framework for Efficient Transportation Marketplace.

**Freight and passengers on rail**

Rail has an important role to play in reducing congestion by taking some freight and passengers off the roads. Around 10-15% of the freight task is contestable, meaning some more freight could travel by rail. Rail is currently most cost competitive on long-distance routes. There are opportunities for modal shift, particularly on longer corridors, with moves to rail for Melbourne – Brisbane and coastal shipping for eastern states to Perth. However, the forecasts conclude that road will carry the majority of increase on shorter inter- and intra-state corridors.¹⁹

**Buses**

Providing facilities and incentives to shift discretionary travel and peak hour commuting from single occupant passenger cars to public transport options (such as buses) can address one of the major contributors to congestion.

The use of enhanced bus systems, including features such as prioritised rights-of-way has been identified as a most cost effective means of attracting passengers²⁰. The flexibility of bus systems to adopt modified routes as travel demands change, either on a long term basis or during the course of any given day is also attractive.

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¹⁹ Twice the task consultants report

5. ENVIRONMENT AND ENERGY

5.1 THE PROBLEM

GREENHOUSE GAS EMISSIONS

Greenhouse gas (GHG) emissions have grown significantly in all developed nations. For example, transport emissions in the EU have grown 32% from 1990 to 2004. US and Canada’s transport emissions have grown 29% and 33% from 1990 to 2005. This failure has occurred despite significant programs, such as the EU member countries having pursued a raft of innovative technology and transport actions (i.e. global leadership) and implemented actions within the context of ‘compact’ cities.

The Australian transport sector accounted for 14.4% of Australia’s total GHG emissions in 2005. This constitutes the third largest sectoral contribution behind stationary energy (50%) and agriculture (15.7%).

Transport emissions are projected to reach 88 Mt CO₂-e per annum over the Kyoto period (1990 to 2012), an increase of 42% after the effects of current greenhouse emissions abatement measures are taken into account. The impact of these current abatement measures is estimated to be 2 Mt CO₂-e per annum over the Kyoto period (a 2% reduction in emissions over the business-as-usual scenario). Transport emissions are projected to increase to 104 Mt CO₂-e by 2020, an increase of 67% over the 1990 level.

ENERGY SECURITY OF SUPPLY

In addition to climate change issues, security of oil is another key issue which could profoundly impact on the transport sector in Australia. Examining Australia's future oil supply and alternative transport fuels, a Senate committee of the previous Australian Parliament set out a number of reasons for exploring options for increasing or diversifying Australia’s indigenous transport fuel supply. These reasons include balance of trade, security of supply; time lags in developing new supply sources are long, and climate change.

Australia’s transport industry is amongst the most vulnerable to increased oil prices. Australia’s reliance on imported oil will increase in the future. The share of imported liquid fuels in total liquid fuels consumption is projected to rise from 22 per cent (2003-04) to 51 per cent by 2029-30.

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5.2 POSSIBLE SOLUTIONS

An integrated portfolio of initiatives is required, underpinned by strong Commonwealth and national leadership, through COAG. It is envisaged that development of a nationally co-ordinated approach for GHG and energy security for transport would result in recommendations for approval by ATC. These measures will complement the Emissions Trading Scheme being developed by the Commonwealth for reducing GHG emissions nationally over time.

**Short term:**

*Develop transport sector policy levers for reducing emissions in the transport sector and evaluate the relative merit of each option with a view to developing a co-ordinated national approach to reducing emissions from transport. These will address these broad areas:*

- **Improving the fuel efficiency of the vehicle fleet;**
- **Lower carbon fuels and technologies; and**
- **More efficient freight vehicles.**

There are a range of measures could be developed now achieve the objectives of the National Transport Plan.

1. **Improving the fuel efficiency of the vehicle fleet.**

These measures reduce fuel consumption, contribute to lowering GHG emissions and help secure transport energy. These measures include:

- Mandatory CO2 standards for light vehicles, including SUVs and 4WD, consistent with international standards. This would result in a new Australian Design Rule.
- Nationally agreed government fleet purchasing policies for fuel-efficient vehicles. Government fleets purchase a high proportion of new cars, and this purchasing power can be used to create a demand for fuel-efficient vehicles.
- Incentives to increase take-up of fuel efficient vehicles for private buyers. Many incentives are used overseas and could be used in Australia to promote newer fuel-efficient technology.
- Additional information on the fuel efficiency labelling on vehicles to compare relative efficiency across light vehicle classes and annual running cost of fuel (eg star ratings on electrical appliances).

2. **Lower carbon fuels and technologies.**

These measures lower GHG emissions from the fuel and promote low emissions technology. These measures also help secure transport energy. These measures include:

- **Low carbon fuel standard.** This measure could be introduced under the Commonwealth’s Fuel Quality Standards Act.
• **Develop a national low carbon fuels and technologies fund.** This would contribute to the development of new low carbon fuel (including indigenous fuels) and technologies.

3. **More efficient freight vehicles.**

Freight vehicles are responsible for 33% of transport GHG emissions and increasing the capacity of freight vehicles leads to more efficient and lower GHG emissions. These measures include:

• **Inter-capital network for B-triples.** This would allow the use of more efficient long-distance freight vehicles.

• **Streamlined access for higher productivity vehicles through the PBS scheme.** This would result in innovative and more efficient vehicles.

**Next Steps**

The Environment and Energy Working Group to develop recommendations for these three areas for approval by ATC.

**CURRENT MEASURES**

Although there are many current actions to reduce emissions from transport, there is no nationally co-ordinated strategy.

Current and past Commonwealth measures include the green vehicle guide, fuel efficiency labels for vehicles, TravelSmart funding, alternative fuels conversion programme, fleet purchasing policies, and fiscal incentives for biofuels.

Current and past State and Territory measures include TravelSmart, fleet purchasing policies, investment programs to encourage modal shift of passenger transport, and cleaner buses fleets.

**OTHER AREAS TO EXAMINE**

The strategy will need to examine a range of measures. Additional measures for future discussion could include:

1. **Human settlement and transport infrastructure improvements** (to reduce the latent demand need for road travel in our cities)

• More effective freight hubbing resulting in better efficiency.

• National urban transport plan that meets the objectives of the national transport plan.

• Reducing total kilometres travelled for high volume freight by working with industry sectors or companies.

• Assess dedicated freight corridors.

• Placement and integration of inland ports and inter-modal transfer to improve supply chain efficiency.
2. *Vehicle and fuel technology improvements* (to reduce the pollution production potential of the vehicle fleet)
   - Development of a heavy vehicles rating methodology on the basis of duty application.

3. *Transport consumer behaviour improvements* (to encourage transport consumers (passenger and freight) to switch to cleaner modes of travel)
   - Implement cooperative action with major land transport generators in Australia’s capital cities.
   - Access limits for out-of-hours deliveries to reduce the need for freight travel in peak periods for low-noise vehicles.
   - Travel efficiency partnerships with major Australian employers.
   - Intelligent Transport Systems to enable freight transport to have knowledge to avoid congestion and additional GHG emissions.

4. *Security of Australia’s transport energy needs* (to reduce Australia’s reliance on imported fuels)
   - Reviewing Australia’s transport energy paths resulting in a policy decision of how to meet the energy security objectives.

The strategy will also need to recognise linkages with other areas in the national Transport Plan, for example, the potential for Commonwealth funding for public transport initiatives.
6. SAFETY AND SECURITY

6.1 THE PROBLEM

Over the past three years, the Australian road system has claimed the lives of more than 4800 people. This is on average more than 4 deaths per day – more than 30 deaths per week. In addition, for every death, more than 17 people are seriously injured.

Along with the human impact on families is the economic impact – not only for the families of the casualties, but also for the national economy. The cost to the community of road trauma is $17 billion per year. This includes delays and disruption to all users on the road network, loss of productivity and diversion of the resources of the health and welfare systems to these avoidable and unnecessary events. Even a minor road crash can disrupt traffic in our major cities for many hours.

COAG’s agenda has placed emphasis on improving vehicle productivity and pricing reforms, however, in order for further productivity gains to be realised, the community will need to be assured that potentially larger and heavier vehicles will deliver better road safety outcomes than the current fleet. This should involve a balanced evidence-based approach that aims to improve driver behaviour, improve the safety features of heavy vehicles and continue improvement of the road network and its operation.

This section covers some possible short and medium term actions to address the safety and security priorities. These are not intended to be exhaustive, and will require development of policy detail by the Safety and Security Working Group for consideration by ATC.

Some key measures to reduce road trauma have already well known, and their implementation should continue. In particular, the expansion of road-based safety treatments and improved speed management—including the implementation of best practice enforcement—have been identified as essential elements to improve road safety. In May 2007 ATC Ministers agreed to progress these high priority measures in the National Road Safety Action Plan 2007 and 2008. Ministers also agreed that such action should be implemented on a large scale and based on established best practice.
6.2 POSSIBLE SOLUTIONS

**Short/Medium term:**

*Adopt ‘Vision Zero’ which incorporates shared responsibilities to facilitate a fundamental shift in approaches to road safety*

Vision Zero, introduced in Sweden in 1995, represented a fundamental shift in approaches to road safety. Traditional road safety approaches place all responsibility on the user, with little regard for other factors such as infrastructure quality.

**VISION ZERO**

Vision Zero provides a vision of a safe road transport system which can be used to guide the selection of strategies and then the setting of goals and targets. Zero is not a target to be achieved by a certain date. It is a change from an emphasis on current problems and possible ways of reducing these to being guided by what the optimum state of the road transport system should be.

Vision Zero also changes the emphasis in responsibility for road traffic safety. In all current road transport systems, the road user has almost total responsibility for safety. In most countries, there are general rules that the road user should behave in such a way that accidents are avoided. If an accident occurs, at least one road user has, by definition, broken the general rule and the legal system can therefore act.

In contrast, Vision Zero explicitly states that the responsibility is shared by the system designers and the road user:

"1. The designers of the system are always ultimately responsible for the design, operation and use of the road transport system and thereby responsible for the level of safety within the entire system.
2. Road users are responsible for following the rules for using the road transport system set by the system designers.
3. If road users fail to obey these rules due to lack of knowledge, acceptance or ability, or if injuries occur, the system designers are required to take necessary further steps to counteract people being killed or seriously injured."

Monash University Accident Research Centre. Paper presented to the 6th ITE International Conference Road Safety & Traffic Enforcement: Beyond 2000, Melbourne, 6-7 September 1999

Many of the Vision Zero principles have been adopted in Australia as the ‘Safe System’
Since the adoption by ATC of the 2005-06 National Road Safety Action Plan, Australian
Road Safety has been driven by the ‘Safe System’ principles, which have been modelled on the original Swedish Vision Zero.

The Safe System, as expressed in Victoria’s Road Safety Strategy: Arrive Alive 2008-2017, “…recognises that even with a focus on prevention, road crashes will occur – therefore, the road system must be designed to be more forgiving of human error and attempt to manage crash forces to survivable levels, while reducing the contribution of unsafe road user behaviour to road crashes.

A Safe System is one where the likelihood of a road crash is reduced, and where any crash that does occur minimises death and serious injury. The Safe System approach identifies the shared responsibility of road system and vehicle designers, providers and users in achieving this outcome.”

Vision Zero takes a holistic approach to safety and seeks to identify opportunities to improve safety across the range of areas that influence safety outcomes ie: from road system design through to driver behaviour and compliance activity. In the Vision Zero context, system designers are not just road authorities, but all those persons and organisations which influence road environment, including the mix of vehicle types through which a vehicle must travel, and which influence the nature of the potential safety hazards which a driver must negotiate.

Design of a safe road system requires a matching of the speed and performance of vehicles to the characteristics of the road environment in which they operate, but also continual improvement of compliance with rules of the road network.

It is impracticable to design a road system which is safe under all circumstances – consequently rules exist to govern the permissible use of the road system. In order to deliver reduced road casualties, it is essential to maximise compliance with these rules for safe use of the road system – speed limits, vehicle roadworthiness, driver competence, alertness and sobriety for example. In particular, opportunities to use the influence of persons and organisations other than government should not be ignored.

In the Transport and Logistics industry the best off-road users of transport services are already beginning to require safe performance by the on-road operators who provide them with transport. The use of commercial relationships to influence specific safety standards for on-road operations, driven by corporate social obligation and extending off-road OH&S best practice principles can be a significant force for changing safety culture. It allows unsafe road use to be addressed directly, as an alternative to complement reliance on the ‘regulate/enforce/punish’ model that has been the principle avenue to address on-road behaviour up until now.

This need for shared responsibility and acceptance of effective measures to reduce road trauma will need to be extended in collaboration with media and industry partners to promote road safety, including identifying and recruiting high profile champions.

Overseas examples, such as the Swedish OLA approach to road safety, and the European Road Safety Charter, have demonstrated the potential for safety improvements to be realised by partnership with the private sector. The WA Office of Road Safety has developed a partnership model and program which allowed three types of corporate engagement for improving road safety, being Commercial space, workplace involvement and ultimately community engagement between the company and the community
The WA Partnership program is designed to deliver on three major areas within the private sector environment.

- Utilise commercial space for the delivery of road safety messages to both staff and the community.
- Provide educational materials for road safety training and awareness to staff and contractors.
- Assist with corporate policy and corporate policy change.

The Office of Road Safety also created a Corporate Social Responsibility Agreement which embraces Organisational and Corporate issues such as occupational safety and health as well as the environment in which the Organisation or Corporate body operates. Details of these Western Australian initiatives are at Attachment A.

The benefits of expanding this approach to developing partnership initiatives with the corporate sector, to work together with shared responsibility to reduce the number of fatalities and serious injuries on Australian roads warrants serious investigation as a national initiative.

**OLA – a systematic collaboration methodology from Sweden**

Many companies, authorities and organisations can contribute towards a safer road transport system. OLA is a working approach where system designers work together to try to provide solutions to a common problem. Using available facts, potential solutions to one or more problems are discussed. With this approach, all parties are offered an opportunity to present desired measures they are able to implement and as a result to contribute to improved road safety. This working approach is used at both national and regional/local level. OLA is a Swedish acronym for Objective data, List of solutions and Addressed action plans.

**System designers – a key group**

The road transport system is shaped and influenced by system designers.

**Who are system designers?**

The Swedish Road Administration (SRA) is a system designer along with local authorities and other road managers. Vehicle manufacturers are also system designers, as well as police that monitor traffic, and emergency services that take care of accident victims.

Transport companies are important system designers that through their routines can influence route planning and speeds. Purchasers of transport services are also system designers. Their demands on suppliers are very important for the level of transport safety. Politicians and civil servants that work with community planning are other system designers.

**O - Objective data**

In the first phase facts are presented and discussed. The facts can be for example:

- Accident statistics
- The SRA’s in-depth studies of fatal road accidents
- Facts and knowledge from other actors

By studying the chain of events point by point, system designers can together offer an idea of why the accident became fatal. Some issues include:

- Is the road environment suitably designed?
- Did the driver have a tight time schedule?
Was appropriate safety equipment used? 
What was the cause of death? 

L - List of solutions/actions 
In the second phase system designers present and discuss proposals and ideas for solutions - both in the short and long term. Measures can be both large and small. It is important that discussions are forward looking and focus on finding opportunities for improvement. It is not about finding scapegoats or attributing blame. The discussion should mainly concentrate on what each system designer can do, either individually or together with another actor. 

A - Addressed action plans 
The third phase concerns what concrete measures system designers can initiate to improve safety. These should be presented as signed action plans from participating system designers. A declaration of intent is a description of what and when measures will be implemented and also the scope and aim of each measure. System designers are responsible for implementing and following-up their own action plans. The OLA is documented and published on the SRA’s website, at www.vv.se/ola. This documentation is also sent to the Road Traffic Inspectorate, which follows-up and analyses decisions that influence the design and performance of the road transport system. 

From "It must not happen again! OLA – a systematic collaboration for safer road traffic" Vägverket, Sweden, (2007) www.vv.se 

Next Steps 
• Develop project plan to expand WA Partnership program and Corporate social responsibility agreement on a national basis 
• Identify safety issues with which OLA process can be trialled – beginning with rail level crossings 

Short/Medium term: 
• Funding linked to safety outcomes 
• Transport infrastructure funding programs should be tied to safety outcomes. Applicants should make the case for the safety benefits of the proposed initiative. Performance indicators (consistent with government objectives) should be established to determine how to assess the eligibility of these proposals 

The current National Road Safety Action Plan notes that the safety of the network is not only determined by the total dollars invested in road infrastructure, but also by the proportion of available funds spent on safety-focused measures. It is possible to increase safety returns, and achieve higher overall benefit-cost ratios, by directing a greater share of road funding to safety-targeted projects. 

While specifically safety targeted projects, such as blackspot programs, are an essential measure for improving the safety of the road network, every road infrastructure projects provides an opportunity to improve the safety of users of the road network. Ensuring that
the ‘Safe System’ principles are applied to all future infrastructure investment will drive a continual improvement of the overall safety of transport in Australia.

Ensuring the best possible safety outcome for a given project requires a means of effectively assessing the safety performance. The European Transport Safety Council has placed a major emphasis on the development of Performance Indicators for safety to drive improvements in European road safety performance. Programs such as the Australian Automobile Association’s AusRAP (based on the European EuroRAP) have demonstrated a methodology for comparative assessment and rating of road network safety. Development of criteria to ensure that safety benefits are maximised from all infrastructure expenditure will be an important task for the Safety and Security Working Group.

Improving infrastructure safety - AusRAP

The Australian Automobile Association (AAA) and the state motoring clubs established AusRAP (the Australian Road Assessment Program) to provide safety ratings for roads.

AusRAP’s objectives are:

- to reduce deaths and injuries on Australia’s roads by systematically assessing risk and identifying safety shortcomings that can be addressed with practical road-improvement measures; and
- to put risk assessment at the heart of strategic decisions on road improvements, crash protection and standards of road management.

As noted by the AAA:

*Research shows that the biggest gains in helping to achieve the [national road safety] target will come from investing in road infrastructure. It is often the road itself that either causes a crash or turns what could have been a minor crash into a killer. Roadside hazards are a factor in around 40 per cent of car occupants’ fatalities. Make road infrastructure safe is often one of the most cost effective means of saving lives.*

Next Steps

- Develop performance indicators for safety assessment of infrastructure funding proposals

**Short term:**

*Establish a National Road Safety Council (NRSC) to facilitate delivery of significant reductions in safety deaths and injuries*

Establishment of a National Road Safety Council is proposed as an important step in developing a national approach to road safety. There has been, since 2000, a National
Road Safety Strategy (NRSS) – agreed by ATC Each state/territory now also has its own strategy, and implements its own measures within the broad strategic framework. While the safety priorities may differ across the country due to the range of different road environments, opportunities to implement best practice solutions may be being lost.

It is proposed to establish a National Road Safety Council (NRSC) to drive a national approach to road safety. While the details of the NRSC need to be developed, in broad terms:

- Small (7 – 9 members) body, chaired by an eminent person;
- Members to have relevant expertise;
- It would report annually to COAG and the public (each Parliament will table this annual report) on all actions – good and bad - by relevant agencies, industry, insurers and non-government organisations; and
- Make recommendations for any or all of these groups to undertake to improve the safety of the road network – be it operational, legislative, economic or social.

As noted previously, safety responsibilities are not limited to transport or roads agencies. Consistent with the holistic approach of Vision Zero the road safety related activities of a range of agencies will be reported on including Health; Police; Treasury; Finance; and Occupational Health and Safety regulators.

In terms of administrative arrangements:

- an inter-governmental agreement (signed by First Ministers) would be required to ensure access to relevant data in timely fashion;
- a budget – to fund analysis and investigation;
- power to commission and promulgate research findings.

The key is for governments to draw on the ‘best of the best’ in terms of safety and to ensure that these lessons are implemented nationally.

Next Steps

- Develop role statement for Council to be approved by ATC
- Identify range of expertise required
- Scope funding requirements
- Draft inter-governmental agreement for initial consideration by ATC

**Short Term:**

*Provide for independent auditing within a nationally consistent, high standard accreditation scheme with financial incentives for truck operators to join. This accreditation scheme should come under the auspices of the National Road Safety Council.*
The NTC is developing a single national accreditation framework for heavy vehicles. Accreditation schemes use regular audits to assess safety compliance, which reduces governments’ reliance on traditional roadside enforcement. The objective of the framework is to encourage more operators to join audit-based compliance assurance schemes. The NRSC would oversee the accreditation scheme, including certification of non-government compliance schemes to agreed national standards.

Short term:

Review truck driver pay methods, working conditions and career structures, and develop recommendations to address safety issues and the impact of these factors on recruitment and retention of drivers

There is a growing body of evidence supporting the view that payment methods for truck drivers can produce adverse road safety outcomes – particularly in relation to fatigue.

There is now an large body of national and international evidence in the form of judicial and coronial determinations, academic studies, and government-commissioned inquiries identifying in the transport industry a link between, on the one hand, low rates of pay and other inappropriate industrial practices (such as penalty/reward and other performance/time related systems), and on the other hand, safety concerns such as pressure to work excessive hours; pressure to exceed legal speed limits; and pressure to drive through break and sleep times. For example, the Full Bench of the Industrial Relations Commission of NSW in the Mutual Responsibility for Road Safety Case22 made an express finding that there is a direct link between methods of payment and/or rates of pay and safety outcomes.

The basis for payment of truck drivers varies depending on the employment situation. Drivers may be paid in a variety of ways, including per kilometre driven; per journey; per delivery (or per set number of deliveries/pick-ups per day); or by an hourly, weekly or annual wage.

Studies have shown a direct correlation between payment method and incidence of being fatigued. For example in the May 2007, the NTC released “Reform Evaluation Survey on Driver Fatigue: A National Study of Heavy Vehicle Drivers”. That survey found:

“The relationship between payment method and incidence of being fatigued showed a greater association with being paid on a ‘per trip’ rate. This relationship was independent of the amount of short/long haul driving. While the difference was not large, it does raise concern over practices that might pressure drivers to complete a greater number of trips in order to make money.”23

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22 Transport Industry – Mutual Responsibility for Road Safety (State) Award and Contract Determination (No 2) Re: [2006] NSWIRComm 328

23 NTC (2007) Reform Evaluation Survey on Driver Fatigue: A National Study of Heavy Vehicle Drivers,
Recent research from the University of NSW\(^{24}\) also found that light truck and short haul transport drivers who were paid on a time-based rate were less likely than drivers receiving a piece or other rate to experience fatigue frequently. In addition, drivers with higher gross pay were more likely to experience fatigue frequently.

The Transport Workers' Union (TWU) provided the NTC with a detailed submission on these issues. This submission is included as Attachment B.

The question of payment rates is highly contentious. However, in light of the growing evidence linking payment rates to driver fatigue and overall safety outcomes, these issues must be subject to transparent review and discussion. This task should be undertaken as a priority by the Safety and Security taskforce, as it may provide a rapidly implementable means of improving safety in the road freight industry.

Next Steps

- Establish review group and scope of project.

**OTHER ACTIONS**

As was noted in the introduction to this section, the list of possible actions is not intended to be exhaustive and will supplement, not replace valuable initiatives already underway to improve transport safety and security.

Important activities already in train, and which need to continue to be pursued include:

- Development of a new National Road Safety Strategy to have effect beyond the end of the current National Road Safety Strategy 2001-2010.
- Actions to improve railway level crossing safety undertaken through the Railway Level Crossing Behavioural Coordination Group.
- State and National Blackspot and Blacklength programs.
- Roadside and road safety improvement programs, including barrier treatments.
- Implementation of national rail safety legislation and regulation.
- Implementation of Heavy Vehicle Compliance and Enforcement legislation and regulation.
- Implementation of Heavy Vehicle Fatigue Management legislation and regulation.
- Implementation of Chain of Responsibility provisions for Heavy Vehicle speed compliance.
- Promotion of vehicle safety features, including Electronic Stability Control, to consumers.
- Trialling of intelligent speed adaptation systems based on GPS mapping of speed zones.

Graduated licensing improvements for novice drivers.

Trialling and policy development for the introduction of electronic record-keeping by heavy vehicle drivers.

Safety programs targeting remote area communities.

Proposed new measures which need to be progressed include:

- National implementation of best practice speed compliance measures.
- Program of rest area construction along the road freight network.
Road Safety - Private Sector Partnerships

Workings Document

Corporate Social Responsibility – Shared Responsibility

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Content

Background

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Appendix 1 Corporate Social Responsibility Agreement
Background

Each year too many people are dying, or are being seriously injured, in vehicle crashes on Western Australian roads. The Road Safety Council’s vision is to significantly reduce this senseless carnage on our roads through the Western Australian Road Safety Strategy.

Historically the Road Safety Council of Western Australia has focussed in on community education efforts, including changing driver behaviour, particularly with regard to the main problem areas - Speed, Restraints, Drink Driving and Fatigue. This strategy has been supported by the WA Police Service through enforcement, vehicle safety features being developed and implemented by manufacturers, and a further development of design and maintenance of roads and roadsides. There is evidence that these messages are getting through to drivers and we are beginning to see changes in driver behaviour. But achieving behavioural change is a gradual process with long lead times.

The Road Safety Council (through the Office of Road safety has worked with workplaces for a few years to engage with the public at their place of employment and also have influence in the company itself. This engagement with corporations and organisations included corporate road safety policy development, corporate and public fleet influence, in-house corporate training initiatives for road safety as well as corporations and organisations taking responsibility for employees’ road safety and the communities in which they operate.

A partnership model and program was developed which allowed three types of partners for road safety, being Commercial space, workplace involvement and ultimately community engagement between the company and the community.

After the initial successes of the partnership program, it was determined that the more agencies and corporations we get involved in road safety, the quicker gains could be made, and shared responsibility will be introduced as a way of addressing road trauma. This lead to the appointment of a full time management level person to develop, manage and plan a sustainable partnership program.

After a visit to Sweden, Iain Cameron, CEO Office of Road Safety, learned a new approach to road safety, called OLA. This was simply a process by the Swedes, which engaged the corporate world with the road safety authorities to look at crash types, and see what role they could each play in preventing those types of crashes from occurring in the future. It was a three step meeting process following these 3 principles;

1. Objective data was brought to the meeting from all agencies
2. List the opportunities and possible solutions to address the issue
3. Actions to be agreed to by all parties and presented to the media

The partnership program has now quickly expanded, and is showing to be a very successful initiative with positive outcomes for road safety already being achieved.
The Partnership Concept

The concept of developing active partnerships with corporations and organisations is to facilitate and coordinate positive road safety initiatives and road safety outcomes. The concept is to create “win win” situations for both Governments and Private Sectors.

Currently there is a strong trend of corporate accountability for the Duty of Care and Corporate Social Responsibility for all staff. This trend often leads to the consideration of current policies and the actions of their staff that relate to road safety and vehicle use. Through the partnership programme we are able to capitalise on this trend and access the corporate world to influence them into shared responsibility for road safety.

During the development of the partnership programme, it became obvious that there is a need to develop an agreement that had the ability to encompass and facilitate the shift to corporate road safety thinking. The agreement needed to be a holistic corporate approach, which would engage senior management, but also provide the level of detail which would give direction to their road safety policies and road safety initiatives. The Office of Road Safety created a Corporate Social Responsibility Agreement (appendix 1). This is a non legal and non contractual agreement which is jointly agreed to and also signed by both the corporate and the Road Safety Council. The agreement has an agreed termination date of either 2 or 5 years. The termination date was implemented so that the partnership did not become a burden to the corporate, nor that they felt they could not get out of. The termination time period of the agreement was also developed so that neither partner would lose momentum or interest in the programme.

The current partnership concept is separated into two key components that make up the Partnership Agreement.

• The first part of the agreement is a corporate commitment to support road safety key principles and includes road safety as an element of corporate decision making. This commitment is based on 6 Key Principles and 6 Core Values, and the seven elements to good road safety policy Corporate Social Responsibility Agreement, Commitment to Support Road Safety Principles (appendix 1).

• The second part of the agreement to designed to outline the key intended responsibilities / initiatives that the corporate wishes to achieve and referenced to one or more of the safe system model, Corporate Social Responsibility Agreement, Intended Responsibilities (appendix 1). The key intended responsibilities / initiatives outline the proactive actions that the corporate intends to achieve within the agreement. These actions will include but are not limited to, proposed form of distribution of a given road safety message, community engagement for a road safety outcome and their own corporate road safety initiatives for staff and management decision making.

The Partnership programme is designed to deliver on three major areas within the private sector environment.

1. Utilise commercial space for the delivery of road safety messages to both staff and the community.
2. Provide educational materials for road safety training and awareness to staff and contractors
3. Assist with corporate policy and corporate policy change
Safe System Model Approach to Partnerships

The safe system model (Diagram 2) has been designed to benefit all road users and has four essential elements.

- Safer Road User (behaviour)
- Safe Roads and Road Sides
- Safe Speeds
- Safe Vehicles

Safe drivers and riders, in or on safe vehicles, travelling at safe speeds, on safe roads, will reduce the impact and injury to the human body against violent forces. The human body can only withstand so much force at point of physical impact, so creating a safe system environment will reduce serious injury to the human body.

The Safe System Model relates to the Partnership Agreement through the Intended Responsibilities Corporate Social Responsibility Agreement, Intended Responsibilities (appendix 1) and allows a corporation or organisation further scope to engage in road safety and the community outside of the traditional use of promoting road safety behaviours only.

*Diagram 2*

The following are some suggested areas of engagement for different sectors in relation to the Safe Systems Model.

<table>
<thead>
<tr>
<th>Safe Roads and Roadsides</th>
<th>Safe Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Governments</td>
<td>Feet Owners / Operators</td>
</tr>
<tr>
<td>Road Authority</td>
<td>Fleet Associations</td>
</tr>
<tr>
<td>Private Sector / Private Roads</td>
<td>Private Sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safe Speeds</th>
<th>Safe Road User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community / Rural Groups</td>
<td>Private Sector</td>
</tr>
<tr>
<td>Transport Companies</td>
<td>Community / Rural Groups</td>
</tr>
<tr>
<td>Private Sector</td>
<td>Fleet Owners / Operators</td>
</tr>
</tbody>
</table>

*Diagram 3*

The following are some suggested areas of engagement for different sectors in relation to the Safe Systems Model.
The “Win - Win” Philosophy of Partnerships

The “Win – Win” philosophy is to ensure that both partners are able to get the maximum return for working together. This philosophy builds on its on momentum as the more both parties can put into the partnership the better the road safety outcome. Some of the potential “Win – Win” outcomes are listed following

Government – Win

- “Win” in being able to channel road safety education and messages to the road user through their place of employment.
- “Win” through corporate policy change which directly affects the employees and the way they use the road.
- “Win” in the potential reduction in road fatalities and serious harm from more informed and safer road users
- “Win” in being able to have influence on vehicle purchasing decisions and fleet purchasing.

Corporations - Win

- “Win” in being able ensure that their employees are safe road users in the community.
- “Win” being seen as a responsible corporate citizen and promoting a positive message to the community in which they operate.
- “Win” through being seen as a partner to a Government programme.
- “Win” by being promoted positively in the media and other communication channels by the Government, which is positive media that otherwise, could not be obtained.
- “Win” in reducing the amount of lost time of employees due to road trauma It has been claimed that Road trauma is still the biggest cause of lost time for all employers and employees. In human costs there is an average of 12 workplace deaths per year due to road crashes and there is significant serious injury and disability. It is estimated that light vehicle road crashes involve property damage of about half a billion dollars per year. It has been claimed that Road trauma is still the biggest cause of lost time for all employers and employees.
Selection of Private Sector

Selection of private sector partnerships is derived from two main areas. The first being private sector companies which make direct enquiries for road safety assistance or would like to have government endorsement for a road safety initiative. The second area is a very simple marketing concept of disseminating who the key target companies and or organisations are in the private sector market, based on number or demographic of employees, fleet vehicle numbers, high profile company, geographic location or seen as a highly influential company.

Step 1. Who are we currently engaging with?
- What private sector companies are currently or historically requested campaign materials directly, Diagram 1B, or via a road safety agency, Diagram 1A.
- How frequently do they request information and on which campaigns
- Is there a contact person who requests the information

Step 2. Who are the major companies, by employee number, in the state? Diagram 1D

Step 3. Where the high road crash areas?
- Using crash statistics by geographic location. Diagram 1E
- This information can be purchased from the private sector
- This information can also be obtained via business magazines or newspapers

Step 4. Which Corporations or Organisations from Step 1 and 2, fit within Priority Target Group of, Diagram 1C

Diagram 1

A. Road Safety Mass Media Materials Requested by Private Sector / Organisations
B. Current Road Safety Agencies

C. Priority Target Group / Issues of Key Target
D. (Target Area) Major Employers
E. (Target Area) Geographical High Crash Areas
D. (Target Area) Major Fleet Owners / Operators
Partnership Priorities

As the Partnership programme grows and more of the private sector become aware of the “Win – Win” benefits of both media and to their corporate social responsibility the demand in human resources and also financial resources will become pressured. It will become a requirement to assess the priorities of the partnerships to ensure that the maximum road safety benefits can be achieved. It will also be a requirement to assess the level of engagement to ensure that the correct level of resources is being allocated and ensure that lower level priority partnerships are not becoming a resource drain and preventing other priorities from being achieved. The following is an outline for setting priorities for private sector partnership engagement.

Priority 1
- Major state employer with a major fleet operating within the high geographical crash areas.

Priority 2
- Fit with two of the three key targets.

Priority 3
- Only fit with one of the three key target areas.

The Target Areas for the Priority list relate to Diagram 1.
Partnership Recognition

Providing recognition to a corporate is a fundamental part of the Office of Road Safety Partnership concept. Mass media recognition in the community for good corporate citizenship and socially responsible is an immensely motivating return to any corporation. Most multi-national corporate organisation, and even some smaller localised corporations, only receives negative media. Very rarely is there any media coverage on a corporation doing the right thing, either to its employees, or for the community. Articles that are published ensure that copies are kept and the corporate partner has been made aware of the publicity.

It is proposed that Partnership recognition contains two elements. Firstly, when the partnership is publicly launched or implemented, ensure that the event has relevant media attending, as well as prepared press releases issued to all local media and staff /industry magazines. Ensuring that the launch has the correct media exposure shows that the partnership is valued by the Government and that the engagement of the private sector is an important part of road safety education process. Corporate Social Responsibility Agreement, Appendix 1(appendix 1).

The second element of providing public recognition for the partnership occurs once the 12 month report has been received. Corporate Social Responsibility Agreement, Appendix 1(appendix 1). The 12 month report will provide information on the initiative that has been undertaken and illustrate the road safety outcomes that have be achieved.

It is quite possible that main stream media will not publish any of the press releases, and it is recommended that the Office of Road Safety would purchase the required media space and ensure that the partnership is well recognised and publicised in the appropriate manner and place.

The following is a basic diagram that depicts the simplicity of ensuring recognition.

Engage in Partnership

↓

Develop Road Safety Initiative and Implement

↓

Provide Media Exposure
APPENDIX 1

WA Office of Road Safety

Corporate Social Responsibility and Road Safety

Reduce Risk - Shared Responsibility

The Office of Road Safety and Strategic Partners

Working towards a Safer Road System
Commitment to Road Safety

Are you taking your share of responsibility seriously?

Corporate Social Responsibility (CSR) embraces Organisational and Corporate issues such as occupational safety and health as well as the environment in which the Organisation or Corporate operates.

The following is an open invitation to partner with the Office of Road Safety in a strategic commitment to reducing fatalities and serious injuries on our roads.

The Office of Road Safety is committed to developing Partnership initiatives with Organisations and Corporations, which work together with shared responsibility to reduce the number of fatalities and serious injuries on Western Australian roads.

- The Office of Road Safety is responsible for facilitating educational messages and materials to the community and ensuring that the community is road safe.

- The Office of Road Safety is willing to assist organisations and corporate in implementing initiatives that will support the requirements of the Western Australian Road Safety Strategy.

- Organisations and corporations are responsible for ensuring that staff is safe in the working environment.

Safe drivers - driving safe vehicles - on safe roads - travelling at safe speeds.
Strategic Commitment

The Strategic Commitment consists of two key elements, an Agreement of Core Values and Principles and an Agreement of Intended Responsibilities.

Element One

The organisation or corporate can make a commitment to uphold the Road Safety Core Values and Principles in the environment which it operates or has influence.

Element Two

The organisation or corporate can make a commitment to uphold the Road Safety Core Values and Principles in the environment which it operates or has influence as well as commit to engage in Intended Responsibilities. The Intended Responsibilities will be an action which the organisation or corporate will engage in outside of its usual day-to-day responsibilities.

- Commitment to Road Safety Core Values and Principles. (5 Year or 2 Year Commitment)
- Commitment to Intended Responsibilities. (2 Year)

Commitment to Road Safety: Core Values and Principles.

Core Values

This is the first stage of partnering with the Office of Road Safety. The Organisation or Corporate will agree to adhere to the 4 Key Values and 6 Principles of road safety and actively go beyond the core legislation requirements of the law for either a 5-year or 2-year period of commitment with the option of renewing the commitment once completed.

The Office of Road Safety will provide ongoing support and assistance to the organisation or corporate, and provide acknowledgement for committing to partner with the Office of Road Safety (please see Acknowledgements appendix).

Both levels of commitment will require an annual report to the Office of Road Safety on measures taken to uphold this agreement.

Commitment to Road Safety: Intended Responsibilities

Intended Responsibilities

This is an active and strategic 2-year commitment to either participate in a project/s or programme/s currently developed by the Office of Road Safety, or work with the office of road safety to develop a tailored plan of engagement. The tailored plan of engagement will be developed in agreement with the Office of Road Safety.

The Office of Road Safety will provide ongoing support and assistance to the organisation or corporate, and provide acknowledgement for committing to partnering with the Office of Road Safety (please see Acknowledgements appendix). This commitment will also require an annual report to the Office of Road Safety on measures taken to uphold this agreement.
(Organisation) Commitment to Road Safety Principles

Core Values:
1. Agree that the current number of fatalities and serious injuries in Western Australia is unacceptable.
2. Agree to take the most effective possible measures within your environment and responsibility to reduce the number for fatalities and serious injuries on our roads.
3. Agree to encourage effective measures and utilise educational material, which is currently available to encourage road users to apply road safety rules.
4. Uphold a sense of responsibility for the safety of individuals and organisations within your environment that use public roads as a means of transport.

Principles:
1. Take active and achievable measures within my sphere of responsibility (individuals and / or organisations) to contribute to reducing the number of fatalities and serious injuries on our roads
2. Carry out effective actions to promote road safety and awareness as decision-making criteria within the general framework of the Organisation or Corporate.
3. Encourage continuous road safety education actions in the environment that it operates within or has influence (individuals, organisations and community).
4. Ensure that sound road safety policies are developed and implemented, including,
   a. Fleet Safety Policy developed with Road Safety Organisation
   b. Driver Selection, Employment Selection
   c. Driver and Road Safety Induction
   d. Driver Training and Education
   e. Fit for Purpose Vehicles & Safest Vehicle Possible (ANCAP 5 Star Ratings)
   f. Driving Safety Incentives and Disincentives
   g. Driver and Vehicle Reporting – Crashes, Near Misses, Vehicle Maintenance, Education Attended
5. Be willing to share information on effective measures undertaken for the greater good of road safety. (Confidentiality can apply if required)
6. Report annually on actions taken or measures implemented to promote road safety.
(Organisation) Commitment to Road Safety Principles

Organisation / Corporate Name: ________________________________

Address: ______________________________________________________

Represented By: ________________________________________________

In the Position of: _______________________________________________

Hold authority, decision-making, economical or social responsibility and a mandate to represent the above named Organisation / Corporate and in this capacity are willing to uphold a share of the responsibility for road safety in Western Australia for (a five year period) (a two year period).

Signatory

Name: ______________________________________________________

Sign: ______________________________________________________

Date: ______________________________________________________

Office of Road Safety Witness

Name: ______________________________________________________

Sign: ______________________________________________________

Date: ______________________________________________________
Intended Responsibilities

This is an active and strategic 2-year commitment to either participate in a project/s or programme/s currently developed by the Office of Road Safety, or work with the office of road safety to develop a tailored plan of engagement. The tailored plan of engagement will be developed in agreement with the Office of Road Safety.

This commitment will also require an annual report to the office of road safety on measures taken to uphold this agreement.

The following is a list of all current projects and programmes that have been developed in accordance with the Office of Road Safety. All Office of Road Safety projects and programmes relate to the four components of the Safer Systems Model, which work together to reduce road fatalities and serious injury.

- Safe Road User
- Safe Roads and More Forgiving Road Sides
- Safe Vehicles
- Safe Speeds
Intended Responsibilities – Project Sectors

Safer Road Users

There is an ongoing requirement to concentrate on driver education and enforcement and create an integrated suite of campaigns, projects and educational materials that present and promote the “Safe System” road safety philosophy. It is important to continue to reinforce Safe System principles, problem-specific education, promotion and publicity and enforcement campaigns promoting shared responsibility in:

- Drink driving
- Drug driving
- Speeding
- Restraint use
- Distraction
- Fatigue-driving
- Novice driver training and licensing

Safer Roads and More Forgiving Road Sides

Research from our own crash data and from around the world clearly shows that investing in safe roads and roadsides can have a huge impact by reducing the number of serious casualties that occur when crashes happen. Research also tells us that we need to invest more in this aspect of safety.

Safer Vehicles

Vehicle safety features have proven performance when it comes to preventing serious casualties. Most of you want a safe vehicle. Research shows that, in addition to seatbelts and front airbags, the safety features that save the most lives and prevent injury are:

- Electronic Stability Control (ESC) improves a vehicle’s handling at the limits where the driver is about to lose control of the vehicle
- Intelligent Speed Adaptation (ISA) helps drivers comply with speed limits act:
- Side impact and curtain airbags reduce the likelihood of head and chest injuries in side impact crashes
- Active head restraints reduce the likelihood of neck and back injuries in rear impact crashes

Research also tells us that these important features are not fitted as standard on many vehicles available on the Australian market. So how do we get them into the vehicle population and accelerate take up of these proven features?
Safer Speeds

Safer Speeds are about reducing the total amount of kinetic energy in the system to prevent crashes that result in serious injury or death. We know many people are concerned about the idea of reducing speed limits. But for some roads, like high traffic volume, important economic routes, speed limits may be put back once the recommended road improvements have been made.
Commitment to Road Safety: Intended Responsibilities

Organisational / Corporate Name: ________________________________
Address: ______________________________________________________
Represented By: ________________________________________________
In the Position of: _______________________________________________

Hold authority, decision-making, economical or social responsibility and a mandate to represent the above named Organisation / Corporate and in this capacity are willing to uphold a share of the Intended Responsibilities for road safety in Western Australia for 2 years.

(Organisational / Corporate Name) agree to uphold the following Intended Responsibilities and agree to report on an annual basis, our measures and outcomes, in achieving the following Intended Responsibilities – Project Sector.

Project Sector:

Signatory

Name: ________________________________
Sign: ________________________________
Date: ________________________________

Office of Road Safety Witness

Name: ________________________________
Sign: ________________________________
Date: ________________________________
Appendix 1

Any public reference or use of any trade mark of either partner must be subject to prior written approval in each instance.

Acknowledgement

The Office of Road Safety is committed to ensuring that any organisation or corporate that wishes to partner in working towards a safer road system, is publicly acknowledged, this will include, but not limited to the following:

- Office of Road Safety website acknowledgement - Under partnerships, organisation or corporate logo, with hyperlink to partner website.
- Signed Certificate of Commitment
- Plaque of Commitment
- Awards
- Media release / case studies - Network Magazine, Local and State Press
- Opportunity for Best Practise case studies publications

The following is an outline of acknowledgement strategy.

Commitment to Road Safety Principles

On Signing

- Signing Ceremony
- Signed Certificate of Commitment
- Plaque of Commitment

After First Report of Commitment (12 Months)

- Presentation of report to the Road Safety Council
- Media release of the positive initiatives achieved to date.
- Enhanced acknowledgement of the ongoing commitment on the Office of Road Safety website.

Commitment to Road Safety Indented Responsibilities

On Signing

- Signing Ceremony (may coincide with Road Safety Principles signing)
- Signed Certificate of Commitment (including project description)
- Plaque of Commitment (including project description)
- Press release of Commitment
After First Report of Indented Responsibility (12 Months)

- Presentation of report to the Road Safety Council
- Media release of the positive initiatives achieved to date.
- Enhanced acknowledgement of the ongoing commitment on the Office of Road Safety website.
ATTACHMENT B

TWU SUBMISSION – TRANSPORT SAFETY

The Link Between Remuneration and Safety in the Road Transport and Logistics Industry

The NTC has been developing enhanced compliance framework and regulatory tools through its Compliance and Enforcement reforms. These reforms, once implemented nationally, are expected to have a significant effect on improving on-road compliance and safety performance. They include measures such as chain of responsibility obligations on all parties in the transport and logistics supply chain.

These measures have focused on realigning responsibility throughout the chain in an attempt to make improvements in relation to fatigue, speeding and load restraint. Each of these is important and deserving of discrete attention. However, one key area yet to receive such attention in road laws is that of rates of remuneration, remuneration structures and related conditions which apply or ought to apply to all drivers actually performing the work.

There is now an large body of national and international evidence in the form of judicial and coronial determinations, academic studies, and government-commissioned inquiries identifying in the transport industry a link between, on the one hand, low rates of pay and other inappropriate industrial practices (such as penalty/reward and other performance/time related systems), and on the other hand, safety concerns such as pressure to work excessive hours; pressure to exceed legal speed limits; and pressure to drive through break and sleep times. It is in the area of remuneration and related conditions that the power relationships within the transport and logistics supply chain are most clearly seen. Economically powerful industry clients have the commercial influence to determine the price of transport services and, in many circumstances, key conditions relating to the performance of transport work. Successive instances of contracting out, combined with unpaid waiting time at clients’ premises, exacerbate the problem, especially in the long distance sector. As a consequence of these characteristics, drivers,


26 In the Mutual Responsibility for Road Safety case the Full Bench of the Industrial Relations Commission of New South Wales noted, amongst others, the following relevant characteristics of the industry [emphasis added]:

(a) there is widespread non-compliance with award and contract determination provisions and, in particular, underpayment of wages (a view supported by the Executive Director of the NSW Road Transport Association, Martin Iffland);

(b) it is not uncommon for transport companies, which themselves would not engage in conduct in breach of industrial instruments, to subcontract work of marginal viability to other transport companies, which are prepared to breach industrial instruments in order to make a profit;

(c) labour costs are the most significant component of transportation costs and there is an inherent incentive to achieve savings through non-compliance with industrial instruments or through the engagement of owner drivers or small fleet owners who are prepared to do what it takes to make the work profitable;

(d) the competitive pressures in the long distance sector have resulted in a situation where the major transport operators perform only a fraction of the work in the industry with the rest being contracted out;
who are obviously the very last link in the transport supply chain, in that they perform the work, have the weakest concentration of market power and must often take the price given to them or fail to receive work. This makes them prone to engaging in unsafe practices, such as driving for too long, in order to obtain for themselves and their families a decent living.

The Full Bench of the Industrial Relations Commission of NSW in the Mutual Responsibility for Road Safety Case made an express finding that there is a direct link between methods of payment and/or rates of pay and safety outcomes:

**Link between remuneration and safety**

33 In the 2003 Deputy State Coroner's inquest referred to earlier, the following observation was made (emphasis added):

(e) most companies performing long distance work resist enterprise bargaining because of the likelihood that an enterprise bargaining arrangement will price them out of the market by requiring the payment of labour costs measured against yardsticks other than that of financial viability;

(f) there is a link between remuneration and safety issues such as excessive hours of work;

(g) commercial pressures, most notably from major retailers, have intensified, resulting in the major transport companies tendering for contracts at very low rates and leading to the result that they subcontract out any work that they cannot perform profitably. Commercial pressure is also exercised by major retailers in the form of directed delivery schedules placing stress and, at times, unrealistic expectations on the driver actually performing the work;

(h) major retailers refuse to take responsibility for the consequences of the time restrictions that their delivery systems impose on subcontractors and major transport operators themselves contract out responsibility for the work and yet resist being called to account when things go wrong further down the chain;

(i) the transport industry is characterised by chains of successive contracting out of work with commercial power decreasing with each successive step; and

(j) those higher up the chain often contract out work for the express reason of transferring responsibility for the safe performance of the work to others.

27 In Regina v Randall John Harm (unreported, 26 August 2005) His Honour Justice Graham in sentencing a driver said:

In the present matter, the statement of facts refers to safety cams and log books. Restrictions on the maximum speed of heavy vehicles have also been implemented. Despite those measures, heavy vehicle truck drivers are still placed under what is, clearly, intolerable pressure in order to get produce to the markets or goods to their destination within a time fixed, not by any rational consideration of the risks involved in too tight a timetable, but by the dictates of the marketplace. Or, to put it bluntly, sheer greed on the part of the end users of these transport services. The time has come when those who are the beneficiaries of the interstate transport industry must take some blame for what happens at the sharp end of the interstate transport industry. The drivers are put under intolerable pressure. They drive when they are too tired, and when that becomes too difficult, they take drugs to try and prolong the state of awakening, albeit with risks that it can impede their concentration and actually make things worse.

When a collision occurs, such as happened here, who ends up in the dock? Who ends up behind bars? Not the operators. Not the transport companies. Not the big corporations who are the people who use those transport services. But the driver. It's the driver who goes to gaol. The companies still make the profits. The drivers become another casualty of the heavy transport industry. Their lives are ruined, in many ways just as badly as many of the victims lives are ruined, by the imperative of greed which lies at the heart of the interstate transport industry. Case after case in the Courts demonstrates the inadequacy of the government's response to these problems and the inadequacy of the transport industry's own response to these problems.

28 Transport Industry – Mutual Responsibility for Road Safety (State) Award and Contract Determination (No 2) Re: [2006] NSWIRComm 328
My main areas of concern arising in the Inquests, namely, working hours, fatigue and drug use are to the forefront of current policy discussions and proposals. However, as a general observation, it seems to me as if the focus is on finding solutions to the symptoms of the basic problem rather than dealing with what I perceive to be the underlying problem. As long as driver payments are based on a (low) rate per kilometre there will always be an incentive for drivers to maximise the hours they drive, not because they are greedy but simply to earn a decent wage. I anticipate that this incentive will remain an overriding concern for drivers irrespective of legal and safety considerations. This is obviously a structural matter for the road transport industry that has already been placed on the agenda by Professor Quinlan. However, structural changes do not feature prominently in current initiatives as far as I can ascertain.

We consider that the evidence in the proceedings establishes that there is a direct link between methods of payment and/or rates of pay and safety outcomes. We shall refer to the submissions of the Union in this regard:

The evidence has shown a direct link between the rate of pay and/or the method of payment on the one hand and safety outcomes on the other. The uncontested evidence of Associate Professor Michael Belzer [Ex 45] in the context of long distance trucking in the United States is that driver pay has a strong effect on safety outcomes [Ex 45, p 15]: “Higher pay produces superior safety performance for firms and drivers. The precise driver-level study of Hunt suggests this relationship may be as high as 1:4.” He also concluded, on the basis of a survey based on self-reported driver crashes in the sector, that “…every 10% more that drivers earn in pay rate is associated with an 18.7% lower probability of crash, and for every 10% more paid days off the probability of driver crashes declines 6.3%.” [Ex 45, p 105].

Belzer also examined, using an extensive driver survey, the relationship between the rate of remuneration and hours worked [Ex 45, p 11]. Referring to the results of this survey, he stated [at p 104]:

“Our measurement supports the hypothesis that drivers have target earnings and drivers paid lower than average seek to achieve earnings of about $750 per week by increasing their hours, in confirmation of the "sweatshop" hypothesis.”

Local Regulatory Responses

The textile, clothing and footwear industry is marked by similar supply chain dynamics. That industry is scarred by images of “sweatshops” where workers paid by the piece perform extraordinarily long hours to make a living in squalid and unsafe conditions. In order for exploited outworkers to receive fair rates and conditions it has been necessary to have in place measures that ensure that the client is directly accountable for ensuring that the price it pays for the production of garments is sufficient to cover the cost of producing those garments, including the cost of providing to each outworker involved in making those garments the appropriate wages and conditions.


30 The “sweatshop” parallels of the transport industry, particularly in long distance trucking have been well documented.
In the transport industry there has been a similar regulatory trend. In the cash-in-transit industry OHS and Award chain of responsibility provisions have drastically diminished the deadly drop in safety standards associated with contracting out of such inherently dangerous work\textsuperscript{31}. In the long distance sector in NSW consignor responsibility provisions have also emerged in the \textit{Occupational Health and Safety (Long Distance Driver Fatigue) Regulation 2005} and the \textit{Transport Industry – Mutual Responsibility for Road Safety Award} and Contract Determination.

Two key characteristics of these approaches underpin their success. First, they involve direct proactive (before the breach) responsibilities placed on parties at the top of the transport supply chain\textsuperscript{32}. Without this the notion of “responsibility” is confined to a post-breach attempt to reassign blame for a past event in the hope that the threat of future sanction will result in voluntary behaviour modification. In the OHS regulation, for example, a consignor has a direct obligation to ensure that timetables and scheduling for the transport of its freight are reasonable and that a Driver Fatigue Management Plan accompanies the work.

Second, if the underlying economic pressures in the chain which ultimately lead to drivers having to work longer or faster than is safe to make a living or maintain their vehicles are to be effectively addressed the responsibilities on those at the top of the chain must include responsibilities relating to the maintenance of fair and safe effective rates and structures of remuneration for the employees and owner-drivers performing the work.

This, in turn, requires two things. First, enforceable cost recovery models for owner-drivers and safe rates and conditions for employees including properly remunerating drivers for all time (including waiting time) spent in the process of carting freight. These rates and conditions must be established, maintained and enforced through an independent industrial relations commission, which must have the power (after hearing from employer representatives and the Union) to determine the issues. There are a number of local existing models that could be applied that would achieve this outcome.\textsuperscript{33}

The one important difference is that in transport the consequences are more deadly not only to the worker but to the road using public with whom the drivers share our roads.

\footnotesize{\textsuperscript{31} Workcover NSW code of practice for the cash-in-transit industry; \textit{Transport Industry – Cash-in-Transit (State) Award}}

\footnotesize{\textsuperscript{32} Many current or proposed “chain of responsibility” measures while well-intentioned are reactive, triggered by a breach, and/or envisage the practically unrealistic concept of the driver suing “up” the chain. Although this is a step forward in that it acknowledges that responsibility for the transportation of freight does not lie solely with the drivers, it arguably falls into the trap identified by the evidence above, in that it provides no express guidance on how behaviour should be modified prior to the freight task being carried out.}

\footnotesize{\textsuperscript{33} For example, the \textit{Transport Industry – Courier and Taxi Truck Contract Determination} is an enforceable industrial instrument and its made pursuant to chapter 6 of the \textit{Industrial Relations Act} 1996 (NSW). That instrument provides for flexible rate structures (including incentive rates) underpinned by a minimum safety net rate of pay payable for all hours the driver must be available for hire. This concept of a continuous hire rate applied to all hours a driver must be available for work could readily be applied to both employees and owner-drivers in the long distance trucking sector.}

At the heart of the concept is the notion that a driver should be remunerated for all hours he or she is engaged to perform a freight task. Waiting in queues, completing paper work, loading and unloading trailers, splitting B-Doubles, local deliveries and local pickups are components of the freight task that most long distance drivers perform but are not remunerated. Most long distance truck drivers are paid a trip or load rate which does not compensate the driver for anything other than the line haul component of the freight
Second, a mechanism such as the Mutual Responsibility for Road Safety Award and Contract Determination to set in place supply chain responsibility for systems of work and work performance preconditions (such as safe driving plans) which seek to ensure that the system of remuneration utilised, including kilometre rates, is properly applied so that inappropriate industrial practices do not result in low effective and therefore unsafe rates of pay.

A continuous hire safety net rate would also compensate drivers for periods they are required to take their rest breaks because regulated periods of rest breaks are a component of performing the freight task and are to be distinguished from periods of ‘restorative’ rest away from work which are not conditioned by the principal or client and can be enjoyed in driver’s own time in his or her own environment. Finally, any requirement of an operator to ensure the system of remuneration is safe and/or pay a continuous hire rate of pay should require a concomitant obligation upon clients to ensure that freight charges factor in the continuous hire component payable to a driver for the performance of the entire freight task. For example, a requirement might be imposed on a consignor or consignee to the effect that each of them must ensure that the terms of consignment, DELIVERY TIMETABLE, REMUNERATION OR CONTRACT PRICE will not result in, encourage or provide an incentive to the driver or an employer to:

(a) drive while impaired by fatigue; or
(b) drive while in breach of his or her work/rest hours option; or
(c) drive in breach of another law to avoid driving while impaired by fatigue or while in breach of his or her work/rest hours option.
7. STRATEGIC RESEARCH AND TECHNOLOGY

7.1 THE PROBLEM

Research and analysis is at the core of the knowledge that informs and supports public policy and decision making. As governments seek to develop and implement a national transport policy framework, a forward looking, comprehensive research and analytical base is more important than ever.

It is evident from the issues outlined in this document that Australia faces some profound transport and infrastructure challenges. However, there is a widespread view amongst users of transport statistics and policy makers that the current system of data collection and transport research has to change if Australia is to address these challenges.

Stakeholders identified a range of problems with the current arrangements. These can be categorised into four areas:

- No uniform, national centralised data collection – across modes;
- Poor governance - current research initiatives tend to be ad hoc and not focused on supporting national objectives;
- Research is focused on engineering-related operational and technical issues;
- Apparent lack of interest amongst all the jurisdictions to develop a collaborative approach to data collection and information exchange amongst public policy agencies.

In respect of the latter issue, in 2004 ATC agreed that an implementation group oversee the implementation of a National Transport Data Framework (NTDF) and central data portal. The NTDF was never implemented. While a range of reasons have been cited it is indicative of the lack of cooperation and willingness to progress initiatives that are in the national public interest.

An issue that needs to be addressed is the decision by the Australian Bureau of Statistics (ABS) to suspend the annual Survey of Motor Vehicle Use (SMVU) until 2010. The SMVU provides the only available source of detailed nationwide road use data in Australia. This dataset is essential to the delivery of future road reform initiatives.

Technology will play a critical role in addressing Australia’s national transport challenges. While intelligent transport systems are being used, the divide between technology development and policy development needs to be bridged. In areas such as pricing and demand management, technology will be an integral part of the policy solution.
7.2 POSSIBLE SOLUTIONS

**Short/Medium term:**

*Establish a national transport research board*

- *This will include facilitating a collaborative approach to transport research in conjunction with Austroads, BITRE, ARRB, the Rail CRC and relevant university centres*

A new approach to transport research will require:

- Identification of national research priorities – across modes, both passenger and freight;
- Development of a rolling strategic research program;
- Development of governance arrangements which:
  - Ensure limited research funds are spent on projects that consistent with identified national transport priorities;
  - Ensure effective high-level representation from academia, industry and government;
  - Promote linkages with existing ‘centres of excellence’ located in academic institutions – both domestically and internationally.
  - Ensure accountability for expenditure of research funds.

In developing new governance arrangements, consideration should be given to a number of existing models including:

- National Health and Medical Research Council (Australia); and
- Transportation Research Board (US);

The NTC has received submissions from two organisations proposing models for collaborative research entities. These have both been included in this report.

1. ARRB – detailed submission outlining a model for a national research strategy and supporting structures. (Attachment A)
2. Transport and Logistics Centre – proposal for a Centre for City Logistics to be based at a university (Attachment B)

While the latter is a proposal for a specialised research centre is indicative of the type of model that could be adopted for inter-disciplinary research areas.

**Next Steps**

The Working Group should:

- scope options for a governance options for a research entity;
- develop a business case and funding options;
- proposal to be submitted to ATC for consideration
In undertaking this work, the Working Group should consult with researchers and academics that are currently in this field. Establishment of an advisory group maybe the most useful mechanism for undertaking this consultation.

**Short term:**

*Review the timetable and outcomes proposed by Transport Certification Australia (TCA).*

The Intelligent Access Program (IAP) is controversial because its costs have been highlighted, with no explanation of the benefits. Parts of the industry are anxious to use technology to drive productivity and safety reform including the introduction of digital tachographs. The role of the TCA needs to be assessed against its establishing charter and ensure the timetable and outcomes required by industry and government are delivered. The governance issues associated with this work should be referred to the Governance working party (discussed in Chapter 10).

**Short term:**

*Explore the options for tax credits for new technology include side cameras, Euro 4 engines and front radar protection.*

There is considerable scope to drive reform through technology. Consideration should be given to what financial incentives, such as tax credits, could be offered to encourage the uptake of new technology.

**Short/Medium term:**

*National Data Framework*

*Review and implement the national data framework – as previously recommended*

In 2004 ATC agreed that the proposed national data framework should be implemented. This did not occur. The lack of robust data continues to be a major concern in the transport portfolio.

Considerable work was undertaken by a national data working group to support the decision taken by ATC in 2004. This work should be reviewed and a strategy developed to proceed with implementation of the national data framework.
Next Steps
Convene a national data working group to:

- Review the previous work and make recommendations to update data requirements to reflect current needs;
- Develop an implementation strategy;
- A revised proposal should be submitted to ATC.

**Short term:**

*Develop a proposal to address the SMVU.*

The ABS is discontinuing the SMVU due to required cost saving (6 per cent) imposed by the Department of Finance and Deregulation. This has affected 14 ABS surveys, one of which is the SMVU.

The ABS advised that collection of data for the survey ceased in February 2008 and is unlikely to resume until November 2009.

Next Steps

- The Strategic Research and Technology Working Group to liaise with the Working Group dealing with road pricing issues to allocate responsibility for developing a proposal to address the SMVU issue.
Transport Research in Australia

SYNOPSIS

1. To achieve the National Transport Plan, Australia needs to make major advances in:
   - Reduction of network congestion and impediments to efficient urban transport operations
   - Infrastructure planning, integration, design, specification, execution and management
   - New materials and processes for infrastructure construction quality and maintenance
   - Transport technology, systems and practices, both within and between modes
   - Resource efficiency and emissions reduction in transport operations
   - Effective transport safety standards, regulation and enforcement
   - Management and development of the transport workforce, and
   - Research capacity to support transport innovation and improvement at all levels.

2. Research pursued by governments and industry in Australia has facilitated major gains in transport services, productivity and safety, but is limited by its quantum, by the lack of unifying strategy, and by limited research skills and capacity in key fields
   - there has been limited harmonisation, networking or consolidation of knowledge
   - jurisdictional, historical and/or commercial factors have been major hurdles
   - only ‘roads’ and ‘safety’ public-interest research have attracted steady support
     : though this is often limited in the face of other (non-transport) social and political demands
   - even there, lack of research funding, collaboration and integration has reduced the impacts.

3. As an integral part of the National Transport Plan, we need a new National Transport Research Strategy based on the Plan, and an empowered institutional arrangement to sustain this, underwritten by federal and state governments and supported by industry
   - key feature would be a publicly-declared, strategy-driven ‘rolling’ research agenda
   - periodic consultations with industry and community would keep priorities ‘fine-tuned’
   - current ongoing research in key areas would be linked within a network at least
   - existing research funding should run its course ‘as is’ without intervention or jeopardy
   - new research funding would mainly come from national and state government sources
     : possibly via ‘earmarking’ a small portion of revenue derived from the transport sector?
   - financial and program planning for new research would be on at least a 5-year
4. There needs to be a new approach and targeting in such a national transport research strategy - we should foster systematic, networked and collaborative transport research: with an appropriate mix of incentives, facilitation measures and leadership - industry, academia, CRCs and government research entities would participate - focal areas should be infrastructure management, network efficiency, modal integration, safety, the workforce and modal technologies - priority in new research would go to Australia-specific, high-impact and high-return matters - directly addressing (e.g.) congestion, infrastructure constraints and traffic management: where suitable research expertise and capacity is available or can be mobilized soon - innovation, rationalization, efficiency, safety and social benefits would be overarching aims - research activities, outputs and impacts would be regularly and openly publicised

5. A joint government/industry/academia body should advise on and review research priorities - a National Transport Research Council, similar to bodies in the health and science sectors - a broad representative membership would be appointed by government for fixed terms - an early Council task would be an ‘audit’ of existing transport research activities and funding: and identify how these align with the need to reduce congestion and transport constraints

6. The main institutional options to mobilize and sustain the new National Transport Research Strategy (NTRS) and to support the proposed Council are (i) assigning the responsibility to an existing transport sector research organization, with associated supplementation of its resources, (ii) initiating a new ‘virtual’ entity within government somewhere as a hub for research linkages and networking, or (iii) establishing a new national transport research entity, after negotiation with state governments and the industry.
Overview

Australia has a sophisticated and efficient transport system by world standards. Funding for infrastructure and its management is largely supplied by government. Aviation and marine transport are largely managed federally and supplied privately. Federal and state governments and the private sector manage rail. Road transport services are provided to the community under the management of state and local government agencies with most construction financed by government and carried out by the private sector. Research to support the transport task is undertaken along similar structural and jurisdictional boundaries. This system has served the Australian community well for many years.

In transport, Australian government, private sector and academic institutions lead the world in improvisation - adapting world’s best practice; responsiveness – developing responses to Australia’s own circumstances; and innovation – creating solutions which solve problems which are universal to transport globally.

With this approach, and despite its wide open spaces, concentration of population in relatively few large urban areas and long distances from production sources to markets, Australia has developed world class road networks at very low cost, a system of interstate rail links, and port facilities dispersed around the country.

However, at the beginning of the 21st century, new issues influence the transport task. Globalisation, increasing competition and increased demand for urban transport have resulted in urban congestion, a need to increase productivity in the supply chains for key exports, and created the opportunity to integrate the land transport system with air, sea and inland ports to improve productivity in the movement of general freight. In parallel, climate change and pressures on the availability of resources have combined to create an urgent need for sustainable infrastructure and to reduce the environmental load of infrastructure provision and management.

Affecting these challenges and opportunities is the increasing interaction between the “externalities” associated with the different parts of an increasingly complex system; that is, an outcome which maximises benefits in one part of the system may have consequences which are quite negative in another. The determination of optimum outcomes, or indeed sustainable outcomes, in such complex systems requires an investment in a new style of research and research management.

One “Australian” characteristic which has fostered innovation and improvisation in transport is the separation of levels of government both physically and politically across the country. Separation leads to a degree of focus on issues of local importance and to the creation of appropriate (local) solutions to those issues. This demarcation has created diversity, and avoided “group think”, so that ideas have not been constrained into accepted orthodoxies, and new approaches have been welcomed and accepted.

The corollary of separation is that knowledge is dispersed through the interest area cells of many organisations, often remaining in the area in which it is developed and used only to solve a local problem. Over many years attempts have been made to draw together this pool of expertise and research information. This has been successful within relatively narrow interest areas, for example, there is an active national on-line Register of Road Safety Researchers which is well used, and Austroads is currently sponsoring the production of a register all current road
research activities. A recent investigation funded by Austroads to review current road research and to define a direction for the future, was unable to determine the quantum of work currently underway across government departments, private operators and in universities (Meyrick 2006).

To quote the OECD, ‘In an era of rapid technological change, research and development (R&D) is an important element of economic growth. Monitoring the R&D efforts of industry, governments and universities is (the) key to successful policy making and analysis.’

As the rate of change and the threats facing both the Australian and world societies and economies increase, the existing paradigms for the coordination of transport research in Australia must change so that the undeniable benefits of the current research model are augmented by a mechanism for coordination, information exchange and the facilitation of interactions between researchers and policy makers, across organisations and interest areas and critically, across modes. In this chapter, it is argued that this is the best research investment that can be made now for transport productivity in Australia, and one on which subsequent investment in new research can build.

The key participants and stakeholders in transport research in Australia are the federal and state government agencies whose charter includes the management of the various modes of transport, local government particularly in the road area, infrastructure constructors and owners and transport operators both government and private. The users of the transport system are key stakeholders, but generally do not participate in research.

**Transport Research in Australia**

**General**

In a public oriented area such as transportation, research has been and can be a useful tool. Its role is primarily to provide the evidence required to shape responsible and robust policy making by those bodies mandated to provide and manage transportation infrastructure, operations and services. This applies equally to transportation as it does to other areas of a public nature – such as public health, social services, education and justice. Thus research assists those required to resolve the often conflicting pressures on the sphere for which they are responsible by:

- identifying or confirming issues of importance
- understanding the likely influence of each
- understand any uncertainties involved

Within modes, the determination of the amount of research undertaken is difficult, because of differences in the definition of “research”, the number of organisations involved, and the degree of dispersion of the research effort within the organisations

**Current research drivers and efforts**

Currently, most coordinated transport research is that carried out by Austroads in the road sector. The Austroads program focus is on technical aspects of road transport, particularly infrastructure and safety, and aims to encourage best practice and standardization through the development of manuals and guides.
According to a review by Lydon (2008) of a number of western countries, the major drivers of road transport research funding overseas are:

- the need to address current transport issues and challenges
- understanding and preparing for the long term future of transport
- developing high level road transport research and technical expertise
- building a national competitive advantage through improving the economic performance of the transport system and increasing intellectual capital.

These same drivers have been identified in Australia. However, Australia’s geographical, historical and socio-economic characteristics have been behind a dramatic and continuing growth of road transport since the Second World War. In the Australian environment, road transport has been able to offer competitive advantages in handling freight and meeting dispersed delivery demands across an unusually large road network, with highly variable quality of infrastructure, and relatively low network traffic density. The success of the road sector in this period has resulting in a diminishing role for rail and coastal shipping in the overall freight task.

In this context, major drivers now for transport research in Australia are: Supply chain efficiency – particularly the individual roles of road, rail and coastal shipping in the future and crucially, their interfaces in the supply chain; urban congestion; sustainability of infrastructure and the challenges of climate change.

Transport research in Australia is not well linked to the wider research community and so is not subject to the same degree of peer review and rigour as in other fields such as medicine or agriculture. Establishing such a linkage would bring the advantages of experience in research planning, management and delivery.

An estimate of ongoing rail-oriented research is about $1.5 million per year, reflecting the declining priority of rail transport apart from within-mode technical research. This may be increasing, with the planned Rail CRC to be established at QUT forecasting a total annual expenditure, on management plus research, of $10 million over a seven year period.

Australia now also invests comparatively little in marine transport research, partly due to the decline in Australian registered coastal shipping and partly due to the significant transferability of international maritime transport research outputs to the Australian context, even in the safety field. The main marine R&D activity is for safety purposes and in the light vessels (leisure and specialty boats) sector where Australia has a strong commercial track record. In aviation, the main focus in Australian research is either on commercial needs (e.g., aircraft materials, systems and components), or operational safety, including pilot performance and other ‘human factors’ in that context. Most aviation research work in Australia is now driven by regulatory requirements or by the R&D needs of specific individual carriers and particular aircraft.

**Barriers to deriving greater benefit from research**

As noted above, the Australian transport system has benefited greatly from the research which has been done and which continues to be done across the country. Even greater benefits have however, been held back by a number of factors
disaggregation

There is a tendency to treat complex transport issues as discrete technical and/or modal 'sub-problems' when conducting research and to commission research along those lines. In so doing, research becomes so dispersed within organisations funding research that a study conducted by Meyrick in 2006 was unable to achieve a consolidated national picture of what research is underway, what results are available, who is doing it, or what is being spent.

lack of focus on strategic issues

Focussing on 'here and now' issues has meant that research done has mostly been of a tactical nature and of limited value to resolving similar issues with even slightly different parameters. Furthermore, focussing on the present has meant that emerging issues have not been tackled until they have become urgent or problematic, adding to the cost of resolving them by orders of magnitude.

different means of setting priorities in research among jurisdictions

When jurisdictions differ on priorities, it limits the opportunities for combining research efforts and achieving economies of scale. It also opens the possibility of research needing to be revisited after completion, instead of all jurisdictions collaborating to ensure there situations are covered from the outset.

declining funding, as shown below

<table>
<thead>
<tr>
<th>Year</th>
<th>Transport R&amp;D funds (Millions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-97</td>
<td>98.0*</td>
</tr>
<tr>
<td>2002-03</td>
<td>15.2</td>
</tr>
<tr>
<td>2004-05</td>
<td>12.8</td>
</tr>
<tr>
<td>2005-06</td>
<td>13.0 *</td>
</tr>
</tbody>
</table>

# $ 7.8 Million of this was funded by governments through Austroads – equivalent to 0.16% of members’ combined budgets

BTRE 1998

** All other above figures are estimates given in Meyrick 2006

Without funding, there can be no research. Apart from the reduction in actual research projects, resultant findings and opportunities for improvement, the reduction in funding has had unfortunate side-effects:

- less research collaboration between various organizations, as each sought to minimize the amount of their funds shared with other institutions
- less focus on developing research capabilities within the transportation workforce
limited knowledge transfer and linkages

In Australia at present, numerous bodies fund transport research and ‘channel’ the results into government and industry processes for policy setting and decision-making purposes. However, at the level of the actual research activity, no single group or entity acts to integrate or coordinate the activities or their results into a sector-specific body of knowledge, and each individual research body in essence ‘owns’ the agenda and results. A consequence of this is that few stakeholders have a direct interest in, or even awareness of, overall research outputs.

Industry benefit from publicly-funded research is at times limited if research lacks a systematic link to the implementation of outputs. Conversely, government policymakers and regulators have restricted access to industry-funded research when it is of commercial value to the developer. Moreover, there is limited opportunity for direct knowledge transfer between research findings and transport operators. Instead information is channelled via a range of government agencies, which by the very nature of the Australian federation are independent of each other and operate in different jurisdictions. The result is that potential beneficiaries often do not learn about or access the information.

The awareness and impact of research in Australia would be optimised if it (i) was transparently published and monitored from a vantage point visible to all in the industry, (ii) was readily accessible via that point, and (iii) formed an organic part of a clear industry and/or community debate on the need for change.

Removing the barriers

It is clear from the above discussion that there is much critical transportation research being done and that there are significant inhibitors preventing maximum return on research investment. Just as transportation is a complex field, so too will be overcoming the challenges. Any transport strategy seeking to overcome these and deliver maximum improvements to the transportation system would need to:

- focus on acute, holistic and cross cutting issues, such as growing transport congestion and the consequences for business and community needs, whilst acknowledging the need to also tackle the ‘here and now’ issues
- encourage a ‘systems’ approach to resolving transportation challenges through research, cutting across modes, drivers, vehicles, infrastructure and management of operations
- encourage collaboration between (a) research providers (b) research funders and (c) other stakeholders, including transport users, in setting research priorities and agenda
- require a systematic approach to managing, publishing and maintaining the body of knowledge relating to transportation systems
- provide mechanisms for adequate levels of funding, appropriate to the contribution which transportation makes in various jurisdictions, industries and areas of social endeavour

A first step in any research strategy along these lines would be an audit of actual and expected transport research activity in Australia, which should also identify gaps in the body of knowledge. As already stated earlier, information on transport research results, on research being undertaken and on evidence of successful linkages
between research outputs and strategic initiatives, is not good. It is difficult, for this
reason, to form an overall view of what are the gaps.

An audit of research, knowledge and skills with a view to identifying 'gaps' would
create a framework for guiding research activity and investment in Australia. This
could collect data under the headings of the table below.

<table>
<thead>
<tr>
<th>Transport Goal</th>
<th>Research Needed</th>
<th>Research Underway &amp; Status</th>
<th>Accessibility of Outputs</th>
<th>Linkage from Research Outputs to Strategies</th>
</tr>
</thead>
</table>

Beyond opportunities for improvement offered through research outcomes, a
coherent research strategy would also offer a significant platform from which to
attack the skills shortage crisis in transportation, from engineers for designing,
constructing and managing transport system to drivers of freight and passenger
vehicles are a considerable threat to the sustainability of transport in the long term.
Research offers an opportunity to make scarce resources smarter, overcoming to a
degree the problem of there being too few resources to start with.

The following sections outline some of the key research issues such a strategy would
address.

**Key strategically important, high return research imperatives**

Transport is a complex system, comprised of many sub-systems, each of which has
its own goals and constraints and each of which interacts with the other sub-systems.
Some of these interactions are small; some very significant. An example is the
interaction between fuel efficiency (lighter vehicles use less fuel) and safety (it is
more difficult to build occupant protection into lighter vehicles).

There are currently major gaps and opportunities for development in individual sub-
systems of Australian transport and these must not be neglected. Australia has
achieved much with its current approach to transport research with relatively low
funding levels. Existing work needs to continue and preferably increase, but
additional funding could be focussed on the items listed below to achieve synergistic
results out of proportion to the funding inputs.

1. Congestion, supply chains and improved freight and passenger transportation

A growing industry and community concern is the acute level of traffic congestion in
Australia's cities and peri-urban parts of our transport systems. This both affects all
modes in differing ways and locations, and is caused by differentially by the particular
features and impacts of each mode. Demand for freight and passenger transport
access to infrastructure is exceeding supply in several areas. Obvious examples are
ports for bulk freight, and urban roads for commuter and freight movements.

Insidious, but less obvious capacity constraints exist at the interface between freight
vehicle efficiency (overseas vehicles designed to carry greater loads) and the load
bearing capability of Australian pavements. Research is needed to challenge
existing arrangements and decide new directions for policy and infrastructure
investment.

2. “Peak Oil” and other resource issues

This is another demand/supply imbalance, but one which is less within the control of
Australia. The maximum rate at which oil can be extracted from the ground has
already been reached. As emerging economies consume more of the available petrochemical products, energy as well as raw materials for roads such as bitumen, will become scarcer and more expensive. These constraints on input materials will affect the price of fuel and hence transport, but also have an effect on Australia's ability to build, maintain and renew the infrastructure of its supply chains and urban road networks.

3. Climate change

This issue has two aspects: what Australia can and should do to reduce the causes of global warming, and how Australia addresses the climate changes resulting from global warming. Both of these are critical issues for transport. Transport is a major contributor to greenhouse gases, and hence warming. Climate change will affect the origins of the supply chains for many agricultural products, increase disruption (and repair costs) arising from extreme weather events, and force changes in how infrastructure is built and what materials are able to be used.

4. Sustainable infrastructure

A corollary of points 1, 2 and 3 (above) is that new methods of infrastructure construction and operation which use fewer resources must be developed, and that infrastructure materials with much improved lifecycle performance must also be developed. While this applies in each mode in various ways, it is certainly also a need for infrastructure aimed at inter-modal and multi-modal uses and operations. New construction methods and/or new materials in transport facilities will also require new maintenance methods. Research will be crucial in helping to identify and evaluate the options and impacts in each case.

5. Safety

In Australia, in terms of spread of activity and funding, road transport is the predominant safety research focus. Marine movements are relatively few and well regulated, and the main influence on Australian maritime safety strategy is the international SOLAS (safety of life at sea) framework. Air transport similarly has relatively few movements compared to the road sector and its operations are in a much more regulated and supervised environment. The majority of rail safety incidents occur at the interface with road transport.

Enormous gains have been made in road safety in Australia. The research challenge now is to build on these gains and to achieve a leverage effect on safety when instigating changes in other aspects of the transport system. Efficiency gains, environmental gains and actions aimed at ameliorating the effects of climate change must also be seen as enabling actions for safer transport whenever possible. This requires convergence and collaboration particularly in human factors issues and safety must be regarded as an outcome of any changes.

6. Inter-dependencies, coordination and research facilitation

It can be seen that there are many interrelations between the key issues above. (For example, reducing bottlenecks in supply chains will increase throughput, but put additional loads on road infrastructure, increase total fuel used, increase greenhouse gas emissions thus contributing to climate change, which will possibly disrupt production at the source of the supply chain …)
Individually each issue has had research work done. In some cases, this work has made connections between the issues, but as outlined earlier, the result of much of the transport research done in Australia remains with the person or group within an organisation which commissioned it. It is not available to others with the same interests, there is little connection across areas, and there is no body or group funded to facilitate cross-pollination.

**National Transport Research Strategy**

A potential solution is the establishment of a new *National Transport Research Strategy* for the facilitation, promotion and communication of transport research, with an emphasis on:

- research action to resolve knowledge gaps that inhibit achievement of national objectives in transport
- giving priority to the specific research needs and priorities of the Australian transport industry and community
- assistance to all sectors of the Australian transport industry concerned with vehicle design, regulation and operation on the basis of technical independence and objectivity
- fostering an ‘outcome-oriented’ approach in transport research to maximise ‘downstream’ benefits and impacts
- facilitating the transfer of research outputs to ‘real-world’ application in key fields
- respecting and engaging the views of all sectors of Australia’s transport industry
- ‘public interest’ transport research and open publication of all research findings and results, freely accessible to all sectors, stakeholders and the public
- inclusive and collaborative approaches to research, with an emphasis on networking, partnerships and cooperation
- building and strengthening research capacity in collaboration with other involved bodies and institutions
- linking proactively with relevant international research bodies and researchers, aimed inter alia at ensuring Australian involvement in and benefit from international transport research
- being an effective consolidation point and source for all Australian practitioners for information on current research and developments, here and overseas
- promoting and communicating excellence in this field in Australia
- awareness-raising in both the Australian community and among federal and state authorities of issues affecting efficiency, productivity and safety in transport in Australia, and advocacy of possible solutions.

An early initiative to strengthen the basis for the new Strategy would be an ‘audit’ of existing transport research activities and funding across Australia.

Simply declaring a new *National Transport Research Strategy* (NTRS) in support of the proposed National Transport Plan will not be enough to achieve NTRS implementation and results. It is vital that Australian governments are able to be advised and supported in this area by an appropriate high-level expert group. It is
recommended that this be constituted in the form of a joint
government/industry/academia National Transport Research Council, charged with
monitoring and advising on national transport research priorities, similar in operation
to National Council bodies in the health and science sectors. The membership would
be broadly representative of the transport spectrum in Australia, and members would
be appointed by government for fixed terms of (say) 5 years.

The success of the NTRS will also depend directly on the selection and
implementation of a suitable institutional framework and ‘anchor-point’, to
communicate the strategy, mobilise research participation and programs, and play
various supporting roles in relation to the resulting research activities. The main
institutional options to achieve this in the current environment are:

- building up and modifying an existing research organization to match NTRS
  needs,

- initiating a ‘virtual’ entity within government as a hub for better research linkages
  and voluntary / cooperative networking among transport researchers, or

- establishing an entirely new national transport research entity.

These options each have distinct merits and virtues, but quite different cost,
implementation, capability and performance implications.

However, if the government's aim is for the NTRS to become the full responsibility of
a dedicated and suitably empowered body as quickly as possible, and for the NTR
Council to be established soon with prompt access to expert resources and support,
then the first option is the most suitable. In that way, a suitable NTRS support
‘platform’ can be put in place quickly and with the best chance of early and ongoing
success, by virtue of the expected availability of experienced research management,
adaptable research-oriented organizational structures and staffing, proven
governance arrangements and extensive networks in both the transport sector and
the research community. This option also has major cost, efficiency and timing
advantages, provided the involved government(s) gives early attention to resolving
the main ‘role’, ‘ownership’, funding and governance matters.

The recent proposal for a new Australian Truck & Bus Research & Information Centre
[ATBRIC] interfaced with the ARRB Group organization offers an appropriate model
for such an NTRS ‘platform’. That proposal in essence involves the combining of a
new research ‘vehicle’ with a mature research ‘parent organization that has inter-
governmental ownership, with full industry participation and accessibility to both
research entities and the general community.

A similar institutional model is recommended as the most promising basis for early
NTRS implementation and effectiveness, including early support to the proposed
Council.

Next Steps

Once the National Transport Plan has been established, action may be taken on
implementation of the proposed National Transport Research Strategy, along the
following lines:

- Decide the scope, function and membership of the proposed NTR Council
• Decide the preferred institutional mechanism(s) to support the NTRS and the Council

• Initiate action by appropriate government agencies to facilitate the establishment of the Council and of the supporting institutional mechanism(s)

• Provide for necessary NTRS and Council start-up funding in relevant budgets

• Begin preparations for a national ‘audit’ of existing transport research activities and funding

• Undertake consultations to determine the most urgent ‘candidates’ for new NTRS-supported research projects, as the genesis of an inaugural NTRS work program.
UNDERSTANDING CITIES - CENTRE FOR CITY LOGISTICS

Australian cities and urban areas are constantly faced with issues of freight movement and congestion on their roads and in their communities generally. This problem is getting worse and worse. Growing environmental constraints and social values require that local, State and the national Government intervene in this matter - but how?

There is a lack of planning guidelines, a lack of transport knowledge and a general lack of coordination in the realm of ideas to address the consequences of continued increasing freight traffic and subsequent congestion in Australian cities.

In other countries the emergence of a discipline known as “city logistics” offers hope. The aim of city logistics is to optimise logistics systems within an urban area by considering the costs and benefits of schemes to the public as to the T&L industry. The industry aim to reduce their freight costs while the public sector tries to alleviate traffic congestion and environmental problems. There is an optimal position for all parties in this equation, but to find it in each case requires research, modelling and a long process of analysis and negotiation.

TALC has developed an idea for a national Centre for City Logistics based on TALC and located at a recognised University – possibly the University of New South Wales in Sydney. The Centre would draw on the work of key academics in other Universities as part of a national Centre of Excellence. There is good work being undertaken in this arena in a small way at Monash University, Sydney University, the University of Queensland, and the University of South Australia.

The intention here is to draw together a multi disciplinary Centre using Engineering, Environmental Science, Economics, Public Administration and other related disciplines. Research and advice would emerge from the Centre to guide national, State and local policy decisions.

The Australian Government would be required to fund the Centre for at least 5 years, at a level of $2 million per year to a total of $10 million. The funding would go to the Centre, not the host University; and the Centre would be governed by a Board drawn from Government, Industry and Academe.

To this amount the participating Universities would be expected to add research funds, and industry stakeholders would be expected to contribute cash and in-kind support. A total pool of $20 million over 5 years would be built for the purpose.
8. WORKFORCE PLANNING AND SKILLS

8.1 THE PROBLEM

The transport and logistics (T&L) industry has not well served by the traditional education and training system in Australia. There are 480,000 plus people working in the T&L industry. 53% of these people have no post school education or training. Less than 20% have tertiary education. There is an average 20% completion rate in vocational courses. Yet the T&L industry faces a dramatic increase in demand for skills at all levels from now until at least 2020.

There are over 220 different tertiary courses across 29 universities; plus almost 1,000 Registered Training Organisations offering hundreds of accredited training courses. 50% of the total national training spend (in excess of $1.2 billion per annum) goes on non-accredited courses.

Access to education and training is a problem in the industry because of working hours (long and unsocial), geography (the industry is scattered across the country and fragmentation (there are over 165,000 business in the industry, most of whom employ less than 5 people). This means that the usual classroom delivery mechanisms are not suitable for the T&L industry – a more flexible and customised approach is needed. No single education and training institution can offer this flexibility.

8.2 POSSIBLE SOLUTIONS

**Medium term:**

*Establish a national transport training institute to develop and implement:*

- programs to support and enhance competencies
- programs to attract, recruit and retain staff

Transport and Logistics Centre (TALC)\(^{34}\), based in NSW has developed a detailed plan to create a virtual national education and training institution for the T&L industry. This plan would create a consortium of current education and training providers to focus on T&L skills. Existing providers would be vetted and invited to join the consortium.

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\(^{34}\) The Transport and Logistics Centre is a not for profit organisation overseen by a Board of Directors of which the Chair of the NTC, Mr Michael Deegan is a member. Mr Deegan’s membership on the TALC Board has previously been approved by NTC Commissioners.
The national “College” would become a broker of courses, auditor of quality and a customiser of programmes to suit industry needs. From the point of view of the T&L industry the College would become the one stop shop for education and training in the industry.

The College would make maximum use of on-line learning and delivery of content via novel and mobile technologies to meet the needs of the workforce in T&L who are generally not located in one place at the same time e.g. truck drivers, train drivers and shift workers.

Establishment of the College would require seed funding of $25 million over five years. Industry participation would be sought to ensure the continued delivery of quality programmes. This action would create an additional 5,000 student places in the industry within 5 years.

**Next Steps**

- Review business plan and supporting documents developed by TALC.
- Develop funding options.
- Prepare a proposal for consideration by ATC.

**Short term:**


The geographically dispersed nature of the T&L industry across the width and length of Australia, combined with the unsocial hours, remoteness of many activities and general fragmentation of the workforce make it difficult to develop a common method of creating, sharing and maintaining individual, corporate and industry knowledge.

The 165,000 businesses and over 480,000 people who comprise the industry are scattered and diverse. Yet they need to exchange information on the most basic issues – rules and regulations, employment and jobs, wages and conditions, health and safety, education and training and business operations.

The freight and passenger task is set to increase significantly over the coming decade and the need for systems to connect businesses and people together has never been stronger.

TALC has designed, developed and built with industry advice a powerful next generation web gateway called TILIS (the Totally Intelligent Logistics Inquiry Service). TILIS is a unique piece of shared digital infrastructure rather like a shipping port – it contains virtual “docks” and “warehouses” and is accessible by anyone with a broadband connection. Industry participants can engage with each other via the port and exchange data and share applications regardless of their in house IT platforms. TILIS works across all known IT platforms. It has 128 bit data security and various “handshake” capabilities not available in other systems.

TALC has also been actively supported by the former Commonwealth Department of Education, Science and Training (DEST) who can see the application of TILIS as a national standard for industry-education portals across Australia. It can work in any industry sector, quite apart from the T&L industry.
TALC requires Australian Government support for another 3 years to bring TILIS online and to engage with commercial and industry partners to make TILIS self supporting. It is setting a benchmark for web based industry support systems, and the Government would be able to utilise this technology across a range of industries.

The funding required is $1 million per year for three years, to a total of $3 million.

The outcome will be a better connected and more engaged T&L industry, with the much efficiency that can be obtained from such connections. Commercial transactions will be facilitated, freight movements enhanced, and skills and learning accelerated.

**Next Steps**
- Review business plan and supporting documents developed by TALC.
- Develop funding options.
- Prepare a proposal for consideration by ATC.

**Short term:**

Skills shortages issues in the maritime industry are to be considered as part of the proposed Commonwealth Government review of coastal shipping

In a similar theme to other transport sectors, the maritime industry is experiencing a skills and labour shortage, with fewer highly qualified mariners coming off Australian flagged international ships and an ageing workforce. At the same time, the growth in international trade in bulk raw materials has led to escalating demand for port staff with high level marine qualifications.

An important factor in improving the availability of maritime skills is to progress seafarers from entry-level State/Territory issued qualifications for small ship operations to the highest certificates. National training and certification requirements and the State/Territory qualifications systems need to be harmonised.

Efforts are being directed at addressing complexities and licensing through the COAG Skills Recognition Taskforce and the review of qualifications requirements by the National Marine Safety Committee (NMSC).

The MUA wants ratification of the ILO Consolidated Maritime Labour Convention and other key ILO Conventions not yet ratified by Australia and support for skills development.

**Next Steps**
- Discuss this matter with the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government to consider how it may be addressed in the context of the Coastal Shipping Review.
9. SOCIAL INCLUSION

Social exclusion threatens Australia’s prosperity by disconnecting remote and disadvantaged communities from society. Increasing accessibility to the transport network will allow for equitable access to community resources.

“If you can't afford transport, you can't do anything can ya”

9.1 THE PROBLEM

Affordable and accessible transport plays a critical role in addressing social exclusion by linking people to employment, social networks, education, health and other services.35

In Australia’s cities decades of urban sprawl have left large areas poorly serviced with transport and social infrastructure. Unemployment and social disadvantage tends to be higher in poorly serviced areas, and residents are often among the most vulnerable to rising fuel costs.

In regional and remote areas the heavy reliance on cars for mobility, rising fuel costs and poor public transport provision reduce peoples’ access to services others take for granted.

Public transport contributes to social inclusion through the “mass transit” with which we are familiar, taking people to and from work and education. In many Australian cities recent increases in public transport patronage have found the public transport systems wanting.

Public transport also has an important “social transit” role, providing mobility for people with the fewest transport options. For many aged Australians, people with disabilities, Indigenous Australians, minorities, rural and regional residents, community transport solutions funded by all levels of government provide them with a degree of mobility they wouldn’t otherwise experience.

A mix of private and public transport solutions is needed to ensure transport underpins social inclusion in Australia.

35 VCOSS
9.2 POSSIBLE SOLUTIONS

**Short/Medium term:**

*Identify and establish national minimum transport accessibility criteria for urban, rural and remote areas*

All Australians need a minimum level of transport to participate in society. Social inclusion means evaluating private and public transport options not just on their ability to move large numbers of people quickly, but to connect people to services.

“Social exclusion can be described as a process through which individuals, groups or communities are progressively prevented from participation in the labour market, access to healthcare services and education.”


The National Transport Policy Framework proposes a social objective:

*To promote social inclusion by connecting remote and disadvantaged communities and increasing accessibility to the transport network to allow equitable access to community resources* (p11).

Meeting this objective and having consideration for the other objectives raises questions about levels of accessibility and levels of equity. Therefore, as a priority, national minimum transport accessibility criteria should be established for people living in Australia’s urban, outer urban, rural and remote areas. Importantly, these service levels should be for a social transit system, rather than a mass transit system, because the objective is social inclusion – it should not be seen as an anti-congestion measure.

The criteria should reflect a mixture of traditional transport criteria (service delivery, efficiency, reliability) and new social inclusion criteria (quality, safety, timeliness, availability, acceptability, accessibility and affordability of local transport options, user participation in the design and planning of services).

Clearly there will be different minimum service levels depending on the size of the city, town or community. The minimum levels in the outer suburbs of a city might involve buses of a particular frequency over a large part of the day (perhaps 7am to 10pm). In a small town it might involve a service with less frequency and for a shorter period of the day. In rural and remote areas, innovative solutions can be found, perhaps involving the use of school buses or freight services to assist in meeting a minimum service level.

The criteria can be used to evaluate existing transport options and identify where improvements are most urgently needed.
"The urban systems approach to transportation and locational disadvantage favours integrated land use and transport policy solutions that reduce the need for car travel and make transit more viable."


Next Steps

It is vital that the development of minimum service levels for social transit systems involves a broad range of stakeholders. These stakeholders will be different from those involved in the development of mass transit systems and will include service providers, social service providers, transport users, senior citizens, etc. A consultative group should be formed to progress the development of service standards and a proposal should ultimately be submitted to ATC.

CURRENT MEASURES

In some States there have been recent significant funding announcements for public transport projects. Public transport improvements will improve social inclusion and have other benefits. Some agencies are already progressing ‘transport connection’ projects looking at integration of transport services to improve social inclusion.

The Federal and State and Territory governments fund the provision of transport for the elderly, people with disabilities and their carers to access shops and medical appointments. The local government sector also provides community transport in nearly all jurisdictions. NSW, SA and Queensland have ongoing community transport programs to ensure social inclusion. Many of these community transport initiatives are currently funded through community service or health budgets.

OTHER AREAS TO EXAMINE

The interface between community transport provided through programs such as Home and Community Care and other transport services such as taxis, route bus services and school bus services needs to be examined in light of minimum service levels for social transit.
10. GOVERNANCE

10.1 THE PROBLEM

A consistent theme from stakeholders and the State/Territory governments is the need for new inter-governmental arrangements to support transport reform. Current arrangements in the transport portfolio have failed to deliver the national policy outcomes that industry and the broader community expect.

The perspective of governments, including the Commonwealth, is to represent (and protect) their own interests. The outcome of this is that ATC has been unable to address some of the most substantial transport issues facing Australia.

The Commonwealth Government has a key leadership role in national transport policy. Using a broad range of powers, including its revenue raising powers, the Commonwealth can exercise considerable leverage to drive reform. This was demonstrated through the implementation of the National Competition Policy (NCP) agreements. The vision and drive to promote collaborative national reform needs to be reinvigorated.

10.2 POSSIBLE SOLUTIONS

**Short term:**

*Well co-ordinated national transport reform*

- *New transport IGA in which all reform programs are co-ordinated with reporting to Transport Ministers and COAG*
- *Expedite implementation of already agreed reforms in road and rail within 12 months*

There are two distinct approaches which ATC could adopt to progress a national transport reform agenda:

1. Informal agreement (‘across the table’) to develop a common policy framework for national transport and a process for implementing it.

2. An inter-governmental agreement (IGA) be developed and signed by all governments (First Ministers), which formally agrees common policy frameworks for the national transport system and processes to facilitate and implement them.

It is worth noting that the ‘one-off’ major reforms have largely been implemented by way of IGAs. For example, road and rail reform, through the establishment of the National Transport Commission, the National Rail Corporation and the Australian Rail Track Corporation. In the absence of a formal IGA, reforms tend to lack cohesion.
and a sustained sense of common purpose. Further, an IGA provides a public statement of intent, thus making it more difficult for jurisdictions to ‘walk away’ from agreed reforms.

If ATC does agree to progress a national transport policy framework, the supporting IGA should have clearly defined:

- accountabilities;
- deliverables; and
- timeframes.

A clear articulation of these is essential to ensure that the work program is delivered in a timely fashion. A draft IGA is provided at Appendix A at the end of this chapter. This document provides a starting point for the development of an IGA to support the national plan.

**Funding of Reforms**

Provision of Commonwealth funding to support the reform process is likely to be proposed by the States/Territories. Competition payments played an important role in implementing the National Competition Policy (NCP) reforms of the 1990s. Further, the Productivity Commission noted in its 2005 review of the NCP that financial incentives could similarly assist in progressing a new nationally co-ordinated reform agenda.

Given the proposed review by Commonwealth Treasury of Specific Purpose Payments (SPP), as well as the need to review AusLink and related programs in the context of Infrastructure Australia, the Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government is not in a position at this time to make specific funding commitments.

At this stage, the focus of any IGA should be on agreeing processes for driving national reforms. Further, the short-term actions recommended in the work program are either projects currently underway and therefore are funded (i.e. road pricing reforms) or are focused on building a base of research and analysis to inform future major policy decisions.

**Next Steps**

- Develop a draft IGA for consideration by an inter-jurisdictional working group
- Undertake an audit of implementation of previously agreed reforms and develop a strategy and timeline to finalise completed implementation within 12 months.

**Short term:**

*2008 Review of NTC to consider the broader question of co-operative federal arrangements in the transport portfolio*

As required by legislation, a review of the NTC will be undertaken in 2008.
This should be used as an opportunity to review broader issues relating to co-operative federal arrangements in the portfolio. The decision by Ministers to chair working groups brings a renewed momentum and focus to the ATC and raises a number of questions regarding the role of SCOT and the architecture (28 working groups) that sit below it.

These issues also need to be considered in the context of the Prime Minister’s interest in reforming inter-governmental arrangements – as demonstrated by the outcomes of the December COAG meeting.

Next Steps

- NTC Chair and CEO to initiate discussions with the Minister and Secretary, Department of Infrastructure regarding the NTC review.

**Short term:**

*Review all Commonwealth, State and Territory transport policies to identify policy gaps and inconsistencies. Development of recommendation to address these issues*

One of the key criticisms levelled at all governments is the lack of alignment between transport policies across the three tiers of government. Lack of alignment of policy, regulation and funding leads to waste and duplication as well as potential conflict between policy directions.

Consistent with the audit of infrastructure there also needs to be an audit of policies that influence – directly or indirectly – transport policy. These policies should not be limited to those which are initiated in the transport portfolio. For example, policy regarding governance of government trading entities (ie: public transport entities, ports etc) are usually set by Treasury in each jurisdiction.

The findings of this audit will identify gaps and inconsistency in policy across state and Commonwealth jurisdiction. Recommendations will be developed for consideration by ATC to address these issues.

Next Steps

- Develop a template outlining the data request and provide to each jurisdiction
- Analyse results with a view to identifying gaps and misalignments with national policy objectives (as set out in this plan)
- Develop options for consideration by ATC

**Medium term:**

*Move to a single national licensing and vehicle registration system*

In February 2008, the Council of the Australian Federation (CAF) agreed to in conjunction with Austroads undertake a detailed analysis of the costs and benefits of the policy and legislative changes required for greater harmonisation of licensing and
registration across all jurisdictions. This decision was based on the findings of an initial report prepared by Austroads for CAF on this issue.

Implementation of a single national licensing and registration scheme is strongly supported by the majority of stakeholders.

That said, there are a number of complex issues to be work through. The fundamental question is whether the changes proposed are administrative only – that is a single database – or also policy; aligning all registration and licensing schemes across the country. These are significant issues and it is essential that ATC is involved in the CAF process to that all relevant transport issues (especially safety matters) are taken into account when assessing these proposals.

Next Steps

- As an immediate priority, determine scope of proposal being considered by CAF and report to ATC in May 2008 as a matter of priority.

**Medium term:**

**Improve safety governance**

- **National Rail Safety Regulator, reporting to ATC through a national board of directors, to administer rail safety legislation. Local operations (accreditation, investigation etc) delegated to state-based organisations, with direct reporting requirements at the State and national level**

At COAG’s direction, governments are currently progressing implementation of a nationally consistent rail safety regulatory framework; the centrepiece being model rail safety legislation. At this stage, Victoria has implemented the legislation, with other states and territories progressively doing so. It is anticipated that the majority of governments will have implemented the legislation by late 2008. COAG had requested that this be completed by the end of 2006.

Given COAG’s agenda with respect to harmonisation of road and rail regulations, and reducing the regulatory burden, there is a compelling argument to progress implementation of a single national rail safety regulator. The rail industry is now essentially national. Given that model legislation is being implemented to reflect this, institutional structures must also be amended.

Rail is highly-regulated and prescriptive compared to road freight. Given COAG’s agenda to harmonise road and rail regulations, and reduce regulatory burdens, there is a compelling argument to work towards a single national rail regulator (NRR).

A number of alternative models could be explored, including the establishment of a statutory national body under Commonwealth law. The NRR would administer the rail safety act and report direct to ATC through a delegated board of directors.

Local operations (accreditation, investigation etc) could be contracted to a state-based organisation, which has direct reporting requirements at the State and national level. State Ministers would also retain the capacity to request a review of NRR decisions.

Further regulatory reform should be pursued consistent with the COAG agenda and PC Inquiry.
Next Steps

- Develop a detailed governance paper on options for a NRSR – including legislative requirements
- Prepare a business case including a funding model – taking into account savings and costs arising from transitioning from multiple regulators to a NRSR
- Strategy for transitioning to a single regulator

Medium term:
Review of ARTC – governance, objectives, role in furthering transport policy outcomes

The Australian Rail Track Corporation is a Commonwealth Government business enterprise. The Minister for Infrastructure, Transport, Regional Development and Local Government (the Minister) and the Minister for Finance and Deregulation are the two shareholding Ministers. Under this model, the Minister’s responsibilities relate to transport policy direction and implementation, with the Minister for Finance and Deregulation responsible for financial administration issues.

A critical issue for the Minister is to what extent is ARTC contributing to Australia’s national transport outcomes. Under current arrangements ARTC provides its shareholder Ministers with an annual statement of corporate intent, corporate plan and an annual report. These reports largely relate to the financial aspects of the organisation and the ability of the transport portfolio to influence ARTC’s strategy or operations via those financial mechanisms is quite limited. It maybe that under the previous administration the success of ARTC was judged largely on financial criteria.

A key issue arising from the rail reforms in NSW during the 1990s was the failure of government agencies to appropriately monitor the performance of corporatised track authorities. Performance monitoring focused largely on financial aspects, with limited attention paid to what the track authority was doing to support the long position of the track and the railway, in terms of its ability to deliver people and goods. This manifested itself in the track authority taking short term financial gains, cost reductions (especially regarding the labour force) and deferral of major strategic projects. With respect to the latter issue, this manifested itself as a slowness to undertake major capital investment – this slowness undermined the government’s ability to achieve strategic objectives and arguably underpins some of the issues currently affecting the NSW rail network.

Next Steps

- Develop terms of reference for a review
- Appoint an independent to chair the review. The person chosen to undertake this review should have expertise in governance issues with respect to governing trading enterprises.
Conflict has arisen between State, Commonwealth and International legislation governing the issue of ballast water carried in ships. This has resulted in considerable confusion for the shipping industry, which has to adopt practical measures to comply with differing regulations when transiting between states.

As an island nation with a relatively small national shipping fleet, maintaining consistency of its national laws with international shipping standards facilitates international trade.

Responsibility for shipping regulation is divided between the Commonwealth and the States/Territory (for intrastate) based on the type of voyage. This limits Australia’s ability to promote compliance of international shipping to international standards. It also complicates maritime administration, duplicates regulatory activity and adds cost and confusion to business.

National shipping legislation still reflects the nineteenth century British Merchant Shipping Acts upon which it was based. It needs to be more focused on primary ship safety and marine environment protection.

State maritime safety agencies and the Australian Maritime Safety Authority (AMSA) are all responsible for marine safety. A growing view within the shipping industry is that all marine safety matters for commercial shipping should come under the purview of AMSA, with the State/Territory bodies retaining control of recreational craft and fishing boats.

A modern performance-based approach should underpin the legislation.

State and Territory marine safety regulation

The National Marine Safety Committee (NMSC) relies on “best endeavours” of State and Territory governments to implement national standards. As in the road and rail sectors, this type of cooperative federalism has failed to meet industry expectations for national consistency. For example, the maritime industry wants a single certificate of vessel registration.

Different institutional structures should be considered from forming a single marine authority to revitalising existing marine authorities through harmonisation of legislation and regulation.

Next Steps

- Develop a paper outlining the key issues in the area of maritime regulation. This should be done in conjunction with the Australian Maritime Group that currently sits under SCOT.
- Identify areas of conflict and develop options for reform. This should include consultation with industry.
- Submit a reform proposal to ATC for consideration.
APPENDIX A

TRANSPORT IGA

OVERVIEW
The Commonwealth and State Governments recognise:

- the importance of transport to building the community and the economy
- the significant challenges created by congestion in major urban areas and the distance between people and centres in some other places
- the need for substantial responses in the future to the major challenges posed by the energy and emissions/climate agendas.

Existing Government processes have led to some cooperative progress. This is notable in relation to nationally uniform (safety related) regulation through the National Transport Commission, and Commonwealth/State funding of freight related infrastructure through AusLink.

Building on this, the Commonwealth and State governments agree to pursue more fundamental alignment and reinforcement of all of their policies affecting personal or freight transport. These policies include funding, financing, taxation, governance of freight infrastructure, contracting, asset stewardship and skill development, and economic and non-economic regulation. To fulfil this, Governments will agree to national transport goals, standards that reflect those goals and processes to achieve these standards and enhance advice to Governments and accountability to the community.

STRUCTURE
This agreement is structured as follows

1. National transport goals
2. Standards that reflect these goals
3. Processes to achieve these standards
4. Processes to advise Governments and inform the community.

1. NATIONAL TRANSPORT GOALS
Governments, acting on behalf of the community, will seek to ensure that transport systems deliver to individuals:

- access to their own community
- the opportunity to share in economic prosperity.

Governments also will seek to ensure that transport systems assist the community to deal with challenges for the future, in particular:

- the cost of energy and the impacts of emissions including on greenhouse conditions
- environmental degradation, including at a local or regional level
- the location of homes and industry, including in urban areas.
Governments recognise that the community and individuals have priorities and needs other than transport. Governments will seek to ensure that transport systems are affordable to the community and to individuals.

2. **STANDARDS THAT REFLECT THESE GOALS**

Governments agree that they will collectively set minimum national standards to reflect these goals.

Governments agree that they are free to pursue or achieve higher standards in their own jurisdiction.

For personal transport, minimum national standards will be set for public transport services and for roads for private motor vehicle use. The standards

- may include matters such as frequency of public transport and road traffic congestion
- may vary across areas according to matters such as population size and distances to community facilities
- will include separate consideration of major urban areas, other centres and other populations.

For freight transport, minimum national standards will be set for a defined network including for associated infrastructure. The network will be defined by reference to national economic significance and will link the major population and industrial centres and ports. The standards

- may include matters such as infrastructure capacity for freight vehicles
- may vary across the defined network according to matters such as the scale and national importance of the task on network segments
- will specify principles for Governments’ involvement in segments of the network, including in relation to ownership, funding, charging, regulation and logistic chain coordination.

3. **PROCESSES TO ACHIEVE THESE GOALS AND STANDARDS**

Governments agree to set policies, as far as possible that

- support the achievement of the goals and standards
- are mutually supportive among Governments.

Governments agree to establish and provide all necessary assistance to a national advisory body [name and status of body to be determined] that will

- oversee the development, and advise on the adoption, of these standards
- monitor progress towards the achievement of these goals, standards and any targets
- identify the contribution of policies to such progress
- identify the emergence or importance of challenges for the future.

Governments recognise

- the need to gain the agreement of Local Governments in this matter
- that the setting and achievement of standards will be iterative
- that the setting and achievement of standards will depend on financial resources available to transport from Governments
that the achievement of standards may be facilitated by common processes, for example in contracting for public transport services.

Governments agree, as a first step that a stocktake be undertaken of

- existing jurisdictions standards for personal and freight transport;
- availability of relevant data on a comparable basis among jurisdictions;
- significant issues that may impact on future achievement of standards; and
- policies that impact on provision or use of relevant transport systems.

Governments agree that they will introduce national consistency in

- the collection of information and data regarding transport systems, standards and policies; and
- forecasting and researching of transport system provision and use.

4. PROCESSES TO ADVISE GOVERNMENTS AND INFORM THE COMMUNITY

Governments agree that the national advisory body will be the organisation with responsibility for

- advising the Council of Australian Governments, through the Australian Transport Council, on standards and the impact of policies;
- advising the Council of Australian Governments, through the Australian Transport Council, on the adequacy of transport forecasting and research;
- specifying common relevant data to be collected by jurisdictions;
- informing the community on progress towards achieving the goals and standards set by the Council of Australian Governments.

Governments agree that at least once each year the national advisory body will provide to the public a report detailing

- progress with implementing this intergovernmental agreement
- the goals and standards set by the Council of Australian Governments
- progress towards achieving those goals and standards, including trends in transport.

This intergovernmental agreement will be reviewed for decision by the Council of Australian Governments in 2013.

STOCKTAKE TASKS

The national advisory body is to provide a report to the Council of Australian Governments comprising a stocktake on 4 areas comprising information for each State and for the Commonwealth:

- Standards and requirements
- Capacity, condition and use
- Plans and forecasts and significant issues
- Policies.

It is intended that the Council of Australian Governments agree to standardisation of reporting of data and information to the national advisory body.
STANDARDS AND REQUIREMENTS

These are in the form of performance indicators. At this time, of interest are the types of performance indicators used, rather than the level or targets at which they are set. Examples include:

- types of requirements for public transport service provision, e.g. service frequency, maximum vehicle loading
- types of requirements for investment in roads for the alleviation of congestion, or for freight infrastructure, e.g. AusLink project appraisal manual.

This type of information is available within jurisdictions. There is likely to be differences among jurisdictions.

Some academic and other research has provided some context for these standards are requirements for example, Hensher’s bus service quality index.

CAPACITY CONDITION AND USE

This involves drawing of several maps to separately indicate transport system capacity, condition and current levels of utilisation. A combination of maps would show bottlenecks.

The maps may be most easily done for the national freight systems, and could draw on work conducted for AusLink. One complication is the specification of capacity and use on heavily congested mixed passenger and freight infrastructure.

There are likely to be some differences in definitions among jurisdictions especially for condition and use.

Condition would comprise asset performance and expected future service potential, and in addition take into account the availability of skills, particularly where they are specific. Public authorities involved in provision of transport or infrastructure should have records of condition. Assessment of condition is necessary to avoid future cost shifting.

Use potentially involves some commercial information for segments of the freight logistics chains. Also it is likely that there are differences and gaps in the statistics of use of public transport systems.

PLANS AND FORECASTS AND SIGNIFICANT ISSUES

Some jurisdictions have published plans for future investments into transport systems.

In some cases these deal with system expansions, and do not directly address renewals or maintenance of existing systems.

There are two mechanisms for forecasts – “top down” e.g. sector wide and “bottom up” e.g. for a segment in a sector. A number of jurisdictions are moving to a common forecasting model but this is limited to urban freight traffic. Interstate flows, presumably modelled for AusLink, also ought to have some consistency at least between adjacent jurisdictions.

A key element in forecasting is specification of assumptions, which for transport would involve policy settings and matters such as economic growth, settlement patterns and fuel prices.
The sensitivity of forecast results to various scenarios should be used to identify or confirm significant issues for transport.

A stocktake in this area would involve listing the variety of sources and forecasts available, together with the underlying assumptions. This would make clear the extent of any inconsistencies in assumptions or gaps in forecasts.

POLICIES AFFECTING TRANSPORT

Policies affecting transport relate to demand, supply or the matching of supply with demand.

Demand side policies include those which influence the choice and level of utilisation of transport systems. Relevant matters include transport pricing, availability, quality and surety of service, security, and factors affecting income levels.

Supply side policies relate to securing or providing incentives for services. These include contracts, franchises, subsidies and taxes and regulation. Deeper supply side policies include provision of training. Governance and capital requirements might also be included in supply side policies.

Matching type policies include facilitation of logistics chains, provision of real time or timetable information to vehicles or passengers.

A number of studies have looked at various policies or groups of policies. For example the Productivity Commission regularly reports on the financial performance of Government Trading Enterprises, financial performance being an influence over provision of some public transport and rail freight services.