FOREWORD

The South Australian Freight Council (the Council) as an extension to its recently released Strategic Plan, 2010-2015 dated June 2010, recognises that while some Socio Economic analysis of the contribution that the Transport and Logistics (T & L) makes to the State of South Australia have been undertaken in the past, a more in-depth analysis by organisations with local South Australian knowledge was necessary.

We also recognised that many sectors of our industry have undertaken socio economic studies relating to their specific niche in the overall structure of T & L and capitalised on that existing work.

Consequently the Executive of the Council has commissioned this holistic study of the Social and Economic impacts of T & L within South Australia and to provide a detailed strategic analysis of the future of our industries.

The fact that the transport and logistics industry is a key contributor to the health of the economy and community should not be underestimated.

People move on our transport networks and public transport to school, work and play. The goods that we all buy in our supermarkets are brought to us by the industry and our export products are delivered to markets through the agency of the T&L industry.

Through the commissioning of the study it has become clearer that if the State and nation are to fully capitalise on our economic and social opportunities, and maintain our statewide, national and international competiveness, then an efficient and effective transport and logistics sector will be critical.

The Council commends this report to you and encourages you to use it in your day to day planning and operations and strategic planning with a view to being able to express significant advances when the next study is undertaken.

John McArdle JP, FCILT
Chairman SAFC
Sept 10
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Executive Summary

Globally, the Transport and Logistics Industry has been under extreme pressure since the financial crisis in 2007 which arrived on top of rapidly escalating fuel prices. While prospects look brighter for 2010, the global credit crisis has weakened demand for freight and personal travel with consequences for Transport and Logistics firms, along with transport infrastructure providers. On a more positive note, industry profits are expected to recover from 2010 as freight and passenger movements recover on the back of an improving Australian economy.

All nations face the challenge of providing sufficient and efficient sea, air, road and rail infrastructure. The Transport and Logistics Industry has considerable economic, social and environmental impacts. Its contribution to economic prosperity is the major focus of this study. However, it also makes a substantial contribution to the living and employment options available to the residents of the State, along with holiday and entertainment opportunities. Its contribution to environmental outcomes is also an important consideration for corporate and community planners. Government policies designed to reduce emissions are likely in the near future and these will have impacts for industry cost structures.

The Transport & Logistics Industry is a major contributor to the national and state economies with wide ranging socio economic impacts. The industry not only contributes directly and indirectly (via the ‘multiplier’ impact) to economic activity, but also facilitates domestic trade and the export and import of goods. The overall efficiency of the Transport & Logistics Industry therefore has important implications for broader economy.

This study concludes that demand for Transport and Logistics infrastructure, and the growth of this industry sector, will surge in coming years on the back of population growth (Asian and Australian) and sustained demand increase from Asia for Australian mining, energy and agricultural exports.

How this infrastructure is to be planned, constructed and financed is unknown, but suggests an increasing important role for the South Australian Freight Council in the State’s economic infrastructure. Ever increasing volumes of raw materials will be exported, and manufactured product imported. The State’s infrastructure, including Transport and Logistics companies that use the infrastructure, cannot be imported and will need to grow and become world class to maximise the State’s competitive position.

Transport effectiveness is a holistic concept about the cost and flexibility of transport options – ease of access, speed of delivery, cost and risks of arrival. It impacts on the rest of the economy in the following ways:
- Increased effectiveness improves competitiveness and therefore increases export demand.

- Increased effectiveness on imported intermediate inputs into production increases competitiveness for business.

- Increased effectiveness on imported consumer goods increases real wages.

This study highlights that transport costs represent:

- 8.2% of the cost of exports from the state (interstate and overseas exports).

- 2.8% of the cost of intermediate product supply.

- 1.7% of the total household consumption spend.

The effectiveness in Transport and Logistics systems is therefore critical in the underlying competitiveness of the South Australian economy.

Section 3 of this report provides a description of the economic structure of the Transport and Logistics industry, divided into the different transport groups. It also provides the structural context of the sector by presenting the production function for the sector – the cost breakdown. In summary the Transport and Logistics industry in South Australia in 2006/07:

- Had a turnover of $7.6 billion in 2006/07 dollars or $8.4 billion in 2010 dollars. It generated $3.3 billion of value added (returns to labour and capital - $3.7 billion in 2010 dollars) which represented 6.9% of South Australia’s Gross State Product. This makes it 40% bigger than the wine industry, 40% bigger than the motor vehicle industry, and 70% the size of the mining and agricultural sectors. The induced value added effects (i.e. backward linkages to supplying businesses, and the impacts of the spending of wages generated by the industry) are estimated at $4.9 billion in 2006/07 dollars or $5.5 billion in 2010 dollars. It should be noted that in 2007 the Australian Logistics Council (ALC) estimated the total contribution of transport and logistics to the South Australian economy at 17.1% of Gross State Product. This estimate, however, includes ancillary economic sectors providing internal transport services (e.g. the fleet operations of food manufacturers). Just as the transport and logistics sector includes, for example, accounting and administrative staff in its estimates of economic contribution, these ancillary sectors include their transport staff in their own respective estimates. Inclusion of such cross sector activity leads to double counting of economic contribution. The key issue in this study is one of the key sectors represented by the South Australian Freight Council – the Hire and Rewards sector – which represents 6.9% of South Australia’s Gross State Product.
• It employed some 29,000 people (about 31,000 Full Time Equivalents – the fact that FTE’s are greater than jobs suggests significant overtime and above average hours), which represents 4.4% of state employment. The induced employment effects are estimated at 50,700 FTE’s.

• It purchases significantly from the wholesale and retail trade sectors (mainly petrol supplies), but very significantly from business services (financial services, accounting, insurance). Business services represent 15% of the inputs into production by the sector.

• Its basic inputs – i.e. labour and capital – represent 43% of production costs, while gross operating surplus (excluding direct taxes) are 15.6%. This is close to the sector’s earnings before interest and tax as a margin against turnover.

• It paid an estimated $320 million of direct taxes (i.e. including GST, petrol taxes, payroll tax etc. but excluding income tax - $355 million in 2010 dollars).

The road transport component of the sector is the dominant sub-sector in the Transport and Logistics industry as follows:

• It had a turnover of $3.5 billion ($3.9 billion in 2010 dollars), and generated $1.5 billion of value added ($1.7 billion in 2010 dollars - 2.24% of Gross State Product).

• It employed almost 18,000 people (about 20,000 FTE’s), or 2.35% of State employment.

• It paid an estimated $160 million in direct taxes ($180 million in 2010 dollars).

In comparison with other States and mainland capital cities, South Australia and Adelaide have amongst the lowest road freight industry growth rates – suggesting it is slowly losing share in the national freight task – though this may change in coming years with population growth and growth in the mining industry.

So questions arise about the economic performance of the industry – is it sustainable, is it structured appropriately to maximise development opportunities, are sufficient profits being generated to facilitate appropriate reinvestment, what are the major constraints for improving the economic performance and what are the major opportunities? There is little public information available in this context so this study draws heavily on industry consultation.

Consultation for this study indicates that the State’s Transport and Logistics industry is sustainable and profitable but has experienced downward pressure on revenues through reduced volumes and lower freight charges since the GFC. To preserve bottom line results many companies have rationalised costs often in the form of staff redundancies and there is anecdotal evidence that the State is losing market share to interstate competition.
However, there are several current and recent instances of reinvestment in Transport and Logistics facilities in South Australia that suggest that the industry is gearing up for expansion. There is industry confidence that the mining industry will drive the State’s economy and the Transport and Logistics industry over the next 10 years. The wine industry, while currently in a mini slump, is also expected to continue to play a major role in driving the State economy and the Transport and Logistics industry as it supplies interstate and overseas markets.

The evidence from this study suggests that on an activity basis the Transport and Logistics industry in South Australia deserves attention as a significant provider of economic activity – that is it supports a significant number of jobs and generates incomes and wealth in the community. In this context alone, effective policy to maximise opportunities in the sector is important.

There is no doubt from this study that the major contribution that the industry can make to the South Australian economy is to improve its own productivity. The South Australian Strategic Plan includes key targets for export growth – and yet to achieve these targets will require competitiveness across a range of industries, and this study demonstrates how important the Transport and Logistics industry is in this regard.

*Importantly, small shifts in industry efficiency have potentially very significant benefits in terms of employment and income growth. A 10% efficiency improvement could increase Gross State Product annually by $0.81 billion and result in of the order of 8,500 new jobs.*

The Bureau of Infrastructure, Transport and Regional Economics estimates urban congestion will cost nearly $20 billion by 2015. With the freight task set to double by 2020, and possibly treble by 2050, the greatest impact will be in urban areas, particularly around ports, inter-modal terminals, and distribution centres.

Clearly, from both a freight and passenger perspective, South Australian *strategy and efficiency improvements* should be focused on maximising the capacity and efficiency of all transport modes along with minimising future congestion around, and in access to:

- Adelaide Airport.
- Outer Harbor.
- Inner Harbor of Port Adelaide.
- The CBD.
- Intermodal Terminals.
- Distribution Centres.
Based on the industry consultation reported in this study, capacity is a critical issue especially for air and sea freight access to priority markets. A strategy, including discreet responsibility, is required to grow South Australia’s international, interstate and regional commercial air and sea capacities through promotion and route development. In this context consideration must also be given to the increasing global dominance of Middle East and Chinese airline carriers and the decline of ‘legacy’ air carriers.

Other key issues consistently raised by industry included:

- A need for better statutory planning for land use in transport precincts, especially sea and air ports.
- Improved infrastructure planning and investment – including for example new wharves and facilities, upgrading navigational aids and road, bridge and rail upgrades to promote the use of larger trucks and trains.
- An inefficient metropolitan corridor road system which adds to time and cost to freight transport.
- The completion of the South Road corridor upgrade and major corridor road systems to both air and sea ports and interstate rail terminals.
- The standardisation and connection of the Eyre Peninsula rail network to the interstate system to provide access to important bulk shipping ports in Thevenard and Port Lincoln for the export of minerals.
- Planning and investment in infrastructure to service the expanding mining industry, including regional infrastructure such as a deep water port on Eyre Peninsula.
- Re-examination of the Adelaide Airport Curfew Act and Regulations to assess what additional flexibility can be introduced without reducing the amenity of surrounding residents.
- The promotion of regional transport hubs to help reduce regional transport costs through the scale of economies.
- Addressing the high cost of developing regional airport terminals and pavements to accommodate larger aircraft and their associated security requirements where the market is large enough to justify them.
- Rail upgrade to sustain double stack and 1,800 meter trains on the Adelaide to Melbourne rail line.

In terms of processes, research and consultation suggest that the South Australian Freight Council consider:
• The need for stronger State based and national engagement.

• More effective coordination between government agencies and industry bodies.

• The need in South Australia to plan for improved efficiencies through integrated long-term planning across transport modes to focus on achieving efficient end-to-end freight and people movements.

• Reducing regulatory burden and complexity, in terms of both the amount of regulation and the number of bodies involved in administration.

• Investigation of the pricing of infrastructure access to reflect actual costs and to minimise inefficiencies and market distortions.

Finally, in addressing the above strategic and key issues, there are sustainable industry competitive advantages and strengths upon which the South Australian Freight Council can launch a new era for advancing industry efficiencies including, for example:

• The close proximity of metropolitan industrial and commercial land to the CBD, airport, shipping port and interstate rail terminal compared with other states.

• Low cost land compared to east coast locations.

• Congestion free airport, adequate runway length, single terminal for international/domestic services and quality terminal.

• South Australia is at the centre of the interstate rail network including direct access to the NT.

• Loading sea cargo directly ex Adelaide as opposed to potential delays in rail cargo to Melbourne due to the limited services.

• From an airfreight perspective, there are uncongested transit areas, no charge on freight tonnage and reduced rates for pure freighters.

• Capacity to accommodate new shipping and aviation services.
1. Introduction

The 2010 – 2015 South Australian Freight Council (SAFC) Strategic Plan recognises the objectives of South Australia’s Strategic Plan and the 30-Year Plan for Greater Adelaide. These State Government plans set the framework for planning and investment in the State’s transport infrastructure and it is the mission of the SAFC to form a strong association with the State Government to facilitate achievement of the objectives in these plans.

Other State policy initiatives that support the 30-Year Plan for Greater Adelaide and are supported by the SAFC Strategic Plan include:

- The State Population Policy
- The State Infrastructure Plan
- The Skills Strategy for South Australia

One of the major objectives of the SAFC Strategic Plan is to “fully support and assist the State government and industry to achieve their economic, social and environmental objectives by collaborative research and promotional programs”. The strategy to pursue this objective during 2010 – 2011 is to identify and communicate the significance of the Transport and Logistics industry to key stakeholders including the State government by:

- Undertaking an economic impact assessment to measure the size, structure, and impact of the industry on the SA economy in terms of Gross State Product, employment and population growth.
- Identify potential impacts on the State economy and population of efficiency improvements in the Transport and Logistics industry (elimination of constraints, regulatory improvements, etc.)\(^1\).

Hudson Howells was subsequently engaged by the SAFC to undertake an Economic Impact Study and Strategic Assessment of the South Australian Transport and Logistics Industry in accordance with the above objective and strategy.

This report details the findings of the economic impact assessment and a strategic analysis of the Transport and Logistics Industry to identify priorities for industry development in line with South Australia’s Strategic Plan and other relevant strategies.

\(^1\) This study is to be used to determine SAFC priorities from 2010.
2. South Australia’s Strategic Directions

It is important that this study consider the context of South Australia’s strategic directions and especially South Australia’s Strategic Plan.

As already noted, the 2010 – 2015 SAFC Strategic Plan recognises the objectives of South Australia’s Strategic Plan and the 30-Year Plan for Greater Adelaide. These State Government plans set the framework for planning and investment in the State’s transport infrastructure and it is the mission of the SAFC to form a strong association with the State Government to facilitate achievement of the objectives in these plans.

Other State policy initiatives that support the 30-Year Plan for Greater Adelaide and are supported by the SAFC Strategic Plan include:

- The State Population Policy
- The State Infrastructure Plan
- The Skills Strategy for South Australia

The SAFC Strategic Plan also supports major Commonwealth Government plans and policies including:

- The National Ports Strategy (current ‘Draft’ to feed in to the National Freight Network Plan)
- The National Freight Network Plan (currently under development)
- The Aviation White Paper – Australia’s first national aviation policy
- The Australian Transport Council and the National Transport Policy Framework

The SAFC Strategic Plan also recognises the objectives and priority projects of Infrastructure Australia (IA) and National Transport Commission (NTC).

The Strategic Priorities in South Australia’s Strategic Plan that are relevant to this strategic assessment are detailed below:

**Road**

- Improve the State’s competitiveness through efficient freight transport networks and improved international links.
- Minimise the impact of freight vehicle movement on the community and environment by appropriately locating and protecting freight routes.
• Concentrate resources on maintaining and improving existing assets rather than extending the network.

Marine

• Facilitate the redevelopment of the State’s export and import harbours to ensure the most efficient access to international markets.

• Ensure any changes in land use on or near ports and harbours do not preclude current or future transport and harbour activities.

• Ensure owner/operators develop and maintain appropriately located wharfing and associated facilities to support tourism, fishing and aquaculture industries.

Rail

• Encourage the shift to rail transport for passenger and freight movements where justified by environmental, economic or social imperatives.

Aviation

• Maintain an efficient transport network to Adelaide Airport to support anticipated passenger and freight movements

• Offset Adelaide’s predominant export aviation market by investigating South Australia’s air freight import potential to attract new services

• Ensure any change in land use on or adjacent to export airports does not preclude future transport development.

• Provide for the orderly expansion of facilities at regional airports to meet growing visitor and freight activities.

People Movement

• Coordinate public transport networks and facilities to maximise access to social services.

• Transform Adelaide’s urban passenger transport system into a cost-effective, environmentally friendly and modern metropolitan network.

• Reduce the impact of passenger transport on the environment by supporting the utilisation of environmentally friendly fuels and transport modes.

• Coordinate the development of urban planning and transport systems to maximise the economic, social and environmental benefits.
• Reduce injuries and fatalities from transport related accidents.

• Ensure necessary counter terrorism measures are undertaken.

• Deliver a more accessible public transport system in line with Disability Discrimination Act 1992 (DDA) requirements.

**Access to Australian Government Funding**

• Ensure South Australia receives a fair share of Australian Government funding commensurate with our population and transport network responsibilities.

**Economic Growth**

• Exceed the national economic growth rate by 2014.

**Competitive Business Climate**

• Maintain Adelaide’s rating as the least costly place to set up and do business in Australia and continue to improve our position internationally.

**Business Investment**

• Exceed Australia’s ratio of business investment as a percentage of the economy by 2014.

**Total Exports**

• Treble the value of South Australia’s export income to $25 billion by 2014.

**Road Safety – Fatalities**

• By 2010, reduce road fatalities to less than 90 persons per year.

**Road Safety – Serious Injuries**

• By 2010 reduce serious injuries to less than 1000 per year.

**Greater Safety at Work**

• Achieve the nationally agreed target of 40% reduction in injury by 2012.

**Greenhouse Gas Emissions Reduction**

• Achieve the Kyoto target by limiting the state’s greenhouse gas emissions to 108% of 1990 levels during 2008-2012, as a first step towards reducing emissions by 60% (to 40% of 1990 levels) by 2050.
**Use of Public Transport**

- Increase the use of public transport to 10% of metropolitan weekday passenger vehicle kilometres travelled by 2018.

While it will not be possible for SAFC to act in isolation to achieve the broad range of objectives contained within the various plans and strategies, SAFC can contribute to their achievement by progressing initiatives in partnership with relevant Agencies and industry.
3. Current Economic Contribution

3.1 Context

The Transport & Logistics Industry is a major contributor to the national and state economies with wide ranging socio economic impacts. The industry not only contributes directly and indirectly (via the ‘multiplier’ impact) to economic activity, but also facilitates domestic trade and the export and import of goods. The overall efficiency of the Transport & Logistics Industry therefore has important implications for broader economy.

From a more socio economic perspective, the industry facilitates the business and personal travel needs of the community. Its structure and efficiency impact on people’s time and costs with measurable consequences for the broader economy.

In recent years the industry has needed to respond to a changing competitive environment brought about by globalisation, rapid technological change and the information economy. In more recent times issues such as global financial instability and carbon emissions management have provided new challenges for the industry.

3.2 The Economic Significance of Transport and Logistics in Australia

The global financial crisis has emphasised the long-term trend and re-emerging dominance of Asia in terms of economic development and population growth, especially China and India. Western dominance, temporarily achieved via the industrial revolution, colonisation and world wars, is being eroded by Asia’s economic development resurgence driven by abundant and cheap labour and aspirations for improved standards of living. International trade is starting to recover, but more particularly it is China, India and Asia generally that are moving back to pre-GFC levels.

Major developments associated with this long-term trend, which the short-term shock of the GFC will simply accelerate, include:

- The loss of manufacturing capacity and jobs in western economies as manufacturing gravitates to Asia.
- Strong Asian demand for Australian resources, especially mining and energy.
- Strong growth in Asian trade with Australia.
• A focus in western economies on more higher value added manufacturing afforded some protection by innovation and research.

• A resurgent services sector (in terms of economic growth and employment) especially in sectors afforded some protection from import competition. This includes freight and logistics, along with other transport sectors, health, education, business and financial services.

It is therefore concluded that demand for transport, freight and logistics infrastructure, and the growth of this industry sector, will surge in coming years on the back of population growth (Asian and Australian) and sustained demand increase from Asia for Australian mining, energy and agricultural exports.

How this infrastructure is to be planned, constructed and financed is unknown, but suggests an increasing important role for the South Australian Freight Council in the State’s economic infrastructure. Ever increasing volumes of raw materials will be exported, and manufactured product imported. The State’s infrastructure, including freight and logistics companies that use the infrastructure, cannot be imported and will need to grow and become world class to maximise the State’s competitive position.

The importance of the freight and logistics sector is further underlined by the need for real and sustained industry efficiencies through business and infrastructure improvements in response to rising fuel prices.

Some initial demonstrations about the importance of the freight sector from a whole of economy context can be found in studies that measure the impacts of transport effectiveness on competitiveness. Transport effectiveness is a holistic concept about the cost and flexibility of transport options – ease of access, speed of delivery, cost and risks of arrival. It impacts on the rest of the economy in the following ways:

• Increased effectiveness improves competitiveness and therefore increases export demand.

• Increased effectiveness on imported intermediate inputs into production increase competitiveness for business.

• Increased effectiveness on imported consumer goods increases real wages.

Importantly and as discussed in more detail below it must be recognised that transport costs represent 8.2% of the cost of exports from the state (interstate and overseas exports), 2.8% of the cost of intermediate product supply, and 1.7% of the total household consumption spend (which includes services and rent etc. – so the impacts are much higher on merchandise). Therefore it is clear that effectiveness in freight systems will be critical in the underlying competitiveness of the South Australian economy.
3.3 Contribution and Supply Chain Linkages

The freight industry is an economic sector that makes profits, employs people and buys inputs from other industries.

Table 1a provides a description of the economic structure of the freight industry, divided into the different transport groups. Table 1b provides the structural context of the sector by presenting the production function for the sector – the cost breakdown. These tables are sourced from Input Output tables of the state, prepared for the Department of Trade and Economic Development. These tables are for the 2006/07 year, and indicate that (in that year) the Transport and Logistics sector can be summarised as follows.

The Transport and Logistics industry in South Australia in 2006/07:

- Had a turnover of $7.6 billion. It generated $3.3 billion of value added (returns to labour and capital) which represented 6.9% of South Australia’s Gross State Product\(^2\). This makes it 40% bigger than the wine industry, 40% bigger than the motor vehicle industry, and 70% the size of the mining industry and also the agricultural sector. Adjusting the dollar values simply for inflation (and not for any growth in the sector), the 2010 dollar value of the industry at that time is $8.4 billion in turnover and $3.7 billion in value added. The induced value added effects (i.e. backward linkages to supplying businesses, and the impacts of the spending of wages generated by the industry) are estimated at $4.9 billion in 2006/07 dollars or $5.5 billion in 2010 dollars.

- It employed some 29,000 people (about 31,000 Full Time Equivalents – the fact that FTE’s are greater than jobs suggests significant overtime and above average hours), which represents 4.4% of state employment. The induced employment effects are estimated at 50,700 FTE’s.

- It purchases significantly from the wholesale and retail trade sectors (mainly petrol supplies), but very significantly from business services (financial services, accounting, insurance). Business services represent 15% of the inputs into production by the sector.

\(^2\) In 2007, the Australian Logistics Council released a report Contribution of Transport & Logistics to The Economy, which cited the total contribution of Transport and Logistics to the Australian economy in 2004/05 as 14.5% of GDP, and contributing 17.1% of South Australia’s GSP. The contribution is broken down into components, namely:

- The Hire and Reward Sector - including line haul freight transport, and logistics and storage – which is estimated as contributing 6.2% of Australian GDP, and 7.5% of South Australian GSP. This is comparable to the definition used in the estimates above, and is a similar result (slightly different definition - as it includes some other segments of the economy – including packaging).

- The Ancillary T&L – including internal transport operations within other areas of the business sector. This includes items such as the Australia Post fleet operations as an example of a significant operator in this space.
Basic inputs – i.e. labour and capital – represent 43% of production costs, while gross operating surplus (excluding direct taxes) are 15.6%. This is close to the sector’s earnings before interest and tax as a margin against turnover.

It paid an estimated $320 million of direct taxes (i.e. including GST, petrol taxes, payroll tax etc. but excluding income tax). The tax value in 2010 dollars would be $355 million).

The road transport component of the sector is the dominant sub-sector in the Transport and Logistics industry and can be summarised as:

- It had a turnover of $3.5 billion (2006/07), and generated $1.5 billion of value added (2.24% of Gross State Product). The 2010 dollar equivalent value is $3.9 billion in turnover and $1.7 billion)
- It employed almost 18,000 people (about 20,000 FTE’s), or 2.35% of State employment.
- It paid an estimated $160 million in direct taxes ($180 million in 2010 dollars).
### Table 1a: Operating Characteristics of the Transport Sector – Inputs into Production by Sub-Sector ($ million 06/07)

<table>
<thead>
<tr>
<th>Sub-Sector</th>
<th>Road transport</th>
<th>Rail, pipeline &amp; other transport</th>
<th>Water transport</th>
<th>Air &amp; space transport</th>
<th>Services to transport; storage</th>
<th>Total Transport Sector</th>
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<tr>
<td>Primary Industry</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Fuel manufacturing</td>
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<td>6</td>
<td>1</td>
<td>21</td>
<td>14</td>
<td>112</td>
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<tr>
<td>Motor vehicles and parts</td>
<td>47</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>56</td>
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<tr>
<td>Other machinery and equip</td>
<td>13</td>
<td>41</td>
<td>12</td>
<td>14</td>
<td>28</td>
<td>108</td>
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<tr>
<td>Metal Products</td>
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<td>17</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>25</td>
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<tr>
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<td>14</td>
<td>1</td>
<td>3</td>
<td>21</td>
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<tr>
<td>Wholesale Trade</td>
<td>131</td>
<td>13</td>
<td>5</td>
<td>25</td>
<td>60</td>
<td>234</td>
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<tr>
<td>Retail Trade</td>
<td>183</td>
<td>5</td>
<td>1</td>
<td>10</td>
<td>33</td>
<td>232</td>
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<td>Road Transport</td>
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<td>Water Transport</td>
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<td>Air Transport</td>
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<td>Transport Services</td>
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<td>Other</td>
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<td>4</td>
<td>5</td>
<td>179</td>
<td>377</td>
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<tr>
<td><strong>Total Intermediate Uses</strong></td>
<td><strong>1275</strong></td>
<td><strong>241</strong></td>
<td><strong>61</strong></td>
<td><strong>181</strong></td>
<td><strong>174</strong></td>
<td><strong>2932</strong></td>
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<td>Household income</td>
<td>1011</td>
<td>175</td>
<td>21</td>
<td>125</td>
<td>439</td>
<td>1771</td>
</tr>
<tr>
<td>Gross Operating Surplus</td>
<td>360</td>
<td>145</td>
<td>18</td>
<td>110</td>
<td>546</td>
<td>1180</td>
</tr>
<tr>
<td>Taxes less subsidies</td>
<td>158</td>
<td>9</td>
<td>1</td>
<td>80</td>
<td>71</td>
<td>319</td>
</tr>
<tr>
<td>Imports</td>
<td>714</td>
<td>89</td>
<td>31</td>
<td>190</td>
<td>343</td>
<td>1367</td>
</tr>
<tr>
<td><strong>Total Production</strong></td>
<td><strong>3519</strong></td>
<td><strong>659</strong></td>
<td><strong>131</strong></td>
<td><strong>686</strong></td>
<td><strong>2573</strong></td>
<td><strong>7569</strong></td>
</tr>
<tr>
<td>Employment (fte)</td>
<td>19284</td>
<td>2093</td>
<td>429</td>
<td>1820</td>
<td>7170</td>
<td>30796</td>
</tr>
<tr>
<td>Employment (no. jobs)</td>
<td>17773</td>
<td>1959</td>
<td>470</td>
<td>1860</td>
<td>7157</td>
<td>29219</td>
</tr>
</tbody>
</table>

*Source: Calculations from State Input Output Tables 2006/07*
This value of production is produced in the context of an annual freight task in South Australia of 18 billion tonne kilometers of road freight (estimated for 2010 in BTRE Report 112, Freight Measurement and Modelling in Australia, (2006)) and more than 11 billion tones of rail freight (2001, also from BTRE Report 112). The following table illustrates the expected growth rate in the freight task over a 17 year period until 2020.
Table 1d indicates the number of registered freight vehicles in Australia and how they have grown over the last 15 years. South Australia has amongst the lowest growth rate – suggesting it is slowly losing share in the national freight task – though this may change in coming years with the growth in the mining industry.
Table 1d: Number of registered freight vehicles in Australia

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2001</th>
<th>2009</th>
<th>Share 2001</th>
<th>% change 01-09</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LCVs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>430.8</td>
<td>501.7</td>
<td>630.9</td>
<td>26.6%</td>
<td>25.8%</td>
</tr>
<tr>
<td>VIC</td>
<td>357.8</td>
<td>410.8</td>
<td>526.2</td>
<td>22.2%</td>
<td>28.1%</td>
</tr>
<tr>
<td>QLD</td>
<td>340</td>
<td>409</td>
<td>617.1</td>
<td>26.0%</td>
<td>50.9%</td>
</tr>
<tr>
<td>SA</td>
<td>115.3</td>
<td>127.9</td>
<td>159.3</td>
<td>6.7%</td>
<td>24.6%</td>
</tr>
<tr>
<td>WA</td>
<td>187.2</td>
<td>216.2</td>
<td>299.6</td>
<td>12.6%</td>
<td>38.6%</td>
</tr>
<tr>
<td>TAS</td>
<td>57.2</td>
<td>62.3</td>
<td>81.5</td>
<td>3.4%</td>
<td>30.8%</td>
</tr>
<tr>
<td>NT</td>
<td>21.5</td>
<td>24.5</td>
<td>33.4</td>
<td>1.4%</td>
<td>36.3%</td>
</tr>
<tr>
<td>ACT</td>
<td>17.5</td>
<td>17.2</td>
<td>22.9</td>
<td>1.0%</td>
<td>33.1%</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>1527.3</td>
<td>1769.6</td>
<td>2370.9</td>
<td>100.0%</td>
<td>34.0%</td>
</tr>
<tr>
<td><strong>Rigid trucks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>103.1</td>
<td>103.3</td>
<td>118.9</td>
<td>28.2%</td>
<td>15.1%</td>
</tr>
<tr>
<td>VIC</td>
<td>84.7</td>
<td>83.2</td>
<td>98.9</td>
<td>23.5%</td>
<td>19.9%</td>
</tr>
<tr>
<td>QLD</td>
<td>63.6</td>
<td>67.5</td>
<td>98.7</td>
<td>23.4%</td>
<td>46.2%</td>
</tr>
<tr>
<td>SA</td>
<td>26.5</td>
<td>25.2</td>
<td>28.3</td>
<td>6.7%</td>
<td>12.3%</td>
</tr>
<tr>
<td>WA</td>
<td>43</td>
<td>44.4</td>
<td>59.3</td>
<td>14.1%</td>
<td>33.6%</td>
</tr>
<tr>
<td>TAS</td>
<td>11.1</td>
<td>9.4</td>
<td>10.7</td>
<td>2.5%</td>
<td>13.8%</td>
</tr>
<tr>
<td>NT</td>
<td>2.8</td>
<td>3.2</td>
<td>4.4</td>
<td>1.0%</td>
<td>37.5%</td>
</tr>
<tr>
<td>ACT</td>
<td>2.7</td>
<td>2.3</td>
<td>2.4</td>
<td>0.6%</td>
<td>4.3%</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>337.5</td>
<td>338.5</td>
<td>421.6</td>
<td>100.0%</td>
<td>24.5%</td>
</tr>
<tr>
<td><strong>Articulated trucks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>15</td>
<td>15.3</td>
<td>16.9</td>
<td>20.8%</td>
<td>10.5%</td>
</tr>
<tr>
<td>VIC</td>
<td>16.5</td>
<td>18.3</td>
<td>24.1</td>
<td>29.7%</td>
<td>31.7%</td>
</tr>
<tr>
<td>QLD</td>
<td>11.7</td>
<td>12.9</td>
<td>18.4</td>
<td>22.7%</td>
<td>42.6%</td>
</tr>
<tr>
<td>SA</td>
<td>5.3</td>
<td>6.1</td>
<td>7.0</td>
<td>8.6%</td>
<td>14.8%</td>
</tr>
<tr>
<td>WA</td>
<td>6.7</td>
<td>7.7</td>
<td>11.9</td>
<td>14.7%</td>
<td>54.5%</td>
</tr>
<tr>
<td>TAS</td>
<td>1.6</td>
<td>1.5</td>
<td>1.7</td>
<td>2.1%</td>
<td>11.9%</td>
</tr>
<tr>
<td>NT</td>
<td>1.1</td>
<td>0.7</td>
<td>0.9</td>
<td>1.2%</td>
<td>35.6%</td>
</tr>
<tr>
<td>ACT</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3%</td>
<td>-28.0%</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>58.2</td>
<td>62.8</td>
<td>81.1</td>
<td>100.0%</td>
<td>29.2%</td>
</tr>
<tr>
<td><strong>All freight vehicles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSW</td>
<td>548.9</td>
<td>620.2</td>
<td>766.7</td>
<td>26.7%</td>
<td>23.6%</td>
</tr>
<tr>
<td>VIC</td>
<td>458.9</td>
<td>512.2</td>
<td>649.2</td>
<td>22.6%</td>
<td>26.7%</td>
</tr>
<tr>
<td>QLD</td>
<td>415.3</td>
<td>489.3</td>
<td>734.2</td>
<td>25.5%</td>
<td>50.1%</td>
</tr>
<tr>
<td>SA</td>
<td>147</td>
<td>159.2</td>
<td>194.6</td>
<td>6.8%</td>
<td>22.2%</td>
</tr>
<tr>
<td>WA</td>
<td>237</td>
<td>268.3</td>
<td>370.8</td>
<td>12.9%</td>
<td>38.2%</td>
</tr>
<tr>
<td>TAS</td>
<td>69.9</td>
<td>73.2</td>
<td>93.9</td>
<td>3.3%</td>
<td>28.3%</td>
</tr>
<tr>
<td>NT</td>
<td>25.4</td>
<td>28.4</td>
<td>38.7</td>
<td>1.3%</td>
<td>36.4%</td>
</tr>
<tr>
<td>ACT</td>
<td>20.5</td>
<td>19.8</td>
<td>25.5</td>
<td>0.9%</td>
<td>28.9%</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>1922.9</td>
<td>2170.6</td>
<td>2873.6</td>
<td>100.0%</td>
<td>32.4%</td>
</tr>
</tbody>
</table>

Source: ABS Motor Vehicle Census, various years. Federally registered vehicles are allocated to their state of operation.
In summary, the evidence suggests that on an activity basis the freight industry deserves attention as a significant provider of economic activity – that is it supports a significant number of jobs and generates incomes and wealth in the community. In the context alone effective policy to maximise opportunities in the sector is important.

So questions arise about the economic performance of the industry – is it sustainable, is it structured appropriately to maximise development opportunities, are sufficient profits being generated to facilitate appropriate reinvestment, what are the major constraints for improving the economic performance and what are the major opportunities? There is little public information available in this context.

### 3.4 Critical Economic Infrastructure

While the economic contribution in terms of size and activity is of interest, in many people’s view the more interesting question is how an industry plays its role within the underlying economy. Dixon and Rimmer (2002) explain this perspective as follows:

“In the long run, an industry’s contribution to the economy should be measured as the improvements in the industry’s ability to make productive use of the economy’s resources. In other words, the main contribution that an industry can make is to improve its own productivity”

In the national accounts systems the freight industry is what is called a margin industry – it generates its value as a margin of the production of other sectors. This is the same perspective as considering the Transport and Logistics industry as a vital part of the economic infrastructure (as much as the road system, rail links, airports, etc.). In a 2008 speech, Senator Steve Hutchins affirmed this view, stating that:

“The Transport and Logistics industry is critical to our international competitiveness, economic growth and ultimately our standard of living”.

The Australian Bureau of Statistics Year Book feature on transport summarises the issues nicely as:

“Transport has considerable economic, social and environmental impacts. Effective transport systems contribute to economic prosperity, as well as to the social achievements of the community that arise through access to an enlarged range of employment and residential options, and to an increased range of holiday and entertainment options. Information about numerous aspects of transport activity is

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3 Sources from Madden, *Assessing the Regional Economic Impact of an Airport: A Dynamic Multiregional CGE Study of Melbourne Airport*, 2004
used by governments, local authorities and industry, to support planning and investment decisions."

In short this ABS review article produces a conclusion is that nationally, freight costs represent 4.5% of the value of exports – i.e. cost to getting to market is 4.5% of value.

Table 2 illustrates the information from the SA Input Output tables with respect to the share of transport costs in final demand and indicates that locally provided transport services\(^4\) make up almost 2% of the cost of goods consumed by households, 2.6% of the costs of other final demand (investment and government expenditure) but most importantly represents 8.2% of the cost of exports (interstate and international).

Table 2: Transport Costs as a Proportion of Costs in Final Demand

<table>
<thead>
<tr>
<th></th>
<th>Household Consumption</th>
<th>Other Final Demand</th>
<th>Tourism</th>
<th>Other Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road transport</td>
<td>1.2%</td>
<td>0.8%</td>
<td>5.6%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Rail, pipeline &amp; other</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.1%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Water transport</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Air &amp; space transport</td>
<td>0.3%</td>
<td>0.3%</td>
<td>5.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Services to transport;</td>
<td>0.2%</td>
<td>1.4%</td>
<td>0.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Transport Sector</td>
<td>1.7%</td>
<td>2.6%</td>
<td>13.4%</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Source: Calculations from State Input Output Tables

Table 3 completes the story with respect to the importance of the local transport sector indicating the estimated cost of locally provided transport on inputs into production. On average these costs add a further 2.8%, but clearly have the greatest impact with respect to physical (as opposed to service) good. In particular the costs in the manufacturing sector tend to be higher in this regard, with transport costs on inputs at 3.5% for manufacturing generally, and 5.2% for food and wine manufacturing.

\(^4\) Note that this is not the total cost of transport – transport services provided internally by companies are excluded (e.g. Australia Post’s delivery vans).
Table 3: Locally Provided Transport Costs as a Proportion of Costs of Inputs by Industry

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Mining</th>
<th>Food and Wine</th>
<th>Other Manuf</th>
<th>Constr</th>
<th>Whole Trade</th>
<th>Retail Trade</th>
<th>Other Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road transport</td>
<td>2.1%</td>
<td>0.7%</td>
<td>3.4%</td>
<td>1.8%</td>
<td>1.1%</td>
<td>1.2%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Rail, pipeline &amp; other transport</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Water transport</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Air &amp; space transport</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.5%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Services to transport; storage</td>
<td>0.5%</td>
<td>0.3%</td>
<td>1.5%</td>
<td>1.2%</td>
<td>0.8%</td>
<td>6.6%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Total Transport Sector</td>
<td>2.7%</td>
<td>1.5%</td>
<td>5.2%</td>
<td>3.5%</td>
<td>2.0%</td>
<td>8.5%</td>
<td>1.4%</td>
<td>1.5%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: Calculations from State Input Output Tables

The clear conclusion is that the efficiency of the local transport sector is critical in terms of the competitiveness of South Australian industry – its ability to develop and grow. Local transport cost represent on average 3% of total production costs, and 8% of getting products to interstate and international markets – or on average over 10% of the cost in being able to compete.

The above represents the direct costs associated with freight and transport. Additional to these costs are the indirect costs, which include:

- Administration costs associated with organising and tracking freight.
- Financing costs in terms of freight cost contribution to the cash flow cycle. From the purchaser point of view (customer for South Australian production) the length of time for delivery will be a deterrent, and to SA companies there is the burden of carrying the costs of production until delivery.

Therefore it is important to understand the importance of the sector for the development of South Australia. The South Australian Strategic Plan includes key targets for export growth – and yet to achieve these targets will require competitiveness across a range of industries, and the core characteristics above show how important the Transport and Logistics sector is in this regard.

Some initial calculations for modelling the impact of transport/freight cost efficiency Implications are as follows:

- The underlying export value from the SA economy is of the order of $25 billion ($10 billion of this is estimated to be overseas merchandise exports, a little over $1 billion of overseas services exports including onshore education and tourism and the balance of $14 billion is interstate exports).
• As indicated above direct locally provided transport costs are 10%+ of the final value of production.

• It is assumed that indirect costs (time, administration) are half the direct costs.

• The key issue for determining the impact of the importance of transport costs is to have some understanding of the elasticity of export demand. Various studies tend to suggest that elasticity of export demand could be as high as 5. Therefore we model a conservative case with an elasticity of 2 and high case with an elasticity of 5.

• With an assumed elasticity of 2, policies and planning outcomes that reduce local transport costs for SA industry – where there is a 10% improvement would increase export sales by $0.75 billion annually. This export sales increase would generate activity in a range of other industries – including suppliers and business services, and would increase demand for labour, which in turn would increase population growth and assist in achieving the range of objectives in the state plan. To provide an initial indication of this aspect of the outcomes using average multipliers from the Input-Output model, a 10% efficiency improvement would increase Gross State Product annually by $0.81 billion and result in of the order of 8,500 jobs created. An export demand elasticity of 5 would mean the GSP increase would be $2.0 billion and an employment increased of 21,000. Achieving these outcomes would depend on the state economy being able to respond to the increased resources demand effectively and to attract labour into the state, and there would undoubtedly be some transfer of the job creation effect into a higher wage increase.

Table 4: Economic Outcomes from Transport Efficiency Gains

<table>
<thead>
<tr>
<th>Efficiency Improvement</th>
<th>GSP Increase ($ billion)</th>
<th>Employment Increase ('000 jobs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elasticity of Demand 2</td>
<td>Elasticity of Demand 5</td>
</tr>
<tr>
<td>2%</td>
<td>0.16</td>
<td>1.7</td>
</tr>
<tr>
<td>5%</td>
<td>0.40</td>
<td>4.3</td>
</tr>
<tr>
<td>10%</td>
<td>0.81</td>
<td>8.5</td>
</tr>
<tr>
<td>15%</td>
<td>1.21</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Source: Modelled results

An elasticity of 2 indicates that a 1% reduction in costs will result in a 2% increase in sales.
Over time, the transport industry has generally become more efficient, though in recent times some of that efficiency has been eroded. BITRE Fact Sheet 28 *Freight rates in Australia 1964–65 to 2007–08* summarises transport cost trends as follows:

“The estimates show that, following generally declining real freight rates over the previous two decades, real freight rates for road, rail and long-distance coastal shipping have risen since 2000–01 (Table 1 provides nominal and real indexed freight rate series and Figures 1 to 4 illustrate indexed trends in real freight rates). Recent increases in crude oil prices, and flow through to diesel fuel prices, have been an important contributing factor in recent freight rate increases for road, rail and coastal shipping.”

What is clear is that declining freight rates are good for the economy as a whole, but depending on what is driving them, are not necessarily good for the long term sustainability of the sector (in terms of profitability and investment). In the case of the freight industry a large component of the rate declines is simply linked to oil price changes, though many studies suggest that increased competition and deregulation of the sector has also contributed. Larger vehicles and vessels are also contributing to lower unit costs.
3.5 Literature Review

There are many papers and analyses on the economic contributions on ports and airports and transport in general. Many of these papers have been produced as a support for advocates of infrastructure investment in transport infrastructure, but the case is consistent.

Again, Senator Hutchins perhaps summarises many of these papers and reports, when he said in his 2008 speech that:

“In the areas of water, energy and land transport alone, CEDA has estimated that we have a $25 billion infrastructure backlog. And infrastructure shortfalls are costing us 0.8 per cent of GDP in lost production – the equivalent of $8 billion. .... In the area of transport, Australia faces some important transport reform challenges. The Bureau of Infrastructure, Transport and Regional Economics estimates urban congestion will cost nearly $20 billion by 2015. And with the freight task set to double by 2020, the greatest impact will be in urban areas, particularly around ports, inter-modal terminals, and distribution centres.”

Some studies and reports emphasise the expected growth in the transport task and identify the issues that arise in this context. The Victorian Freight Futures report includes an introductory statement that:

“Transport costs flow directly on to the costs of everyday goods on our supermarket shelves and affect the competitiveness of our export businesses.”

It then suggests that:

“By 2025, the number of kilometres travelled by road freight vehicles is expected to increase by 70 per cent, with 60 per cent more vehicles on Victoria’s roads. By 2035, the Port of Melbourne is expected to be handling up to eight million standard (twenty foot equivalent) containers per year, four times the current level of two million containers.”

It suggests the biggest challenge will be in dealing with the emergent congestion, stating that:

“At the same time, the movement of large numbers of vehicles carrying freight through towns and cities has an impact on the environment and the amenity of some residential areas. Population growth and increased economic activity will also increase road congestion. Congestion erodes liveability, hinders the efficient movement of freight and imposes substantial economic costs.”
The PriceWaterHouse Coopers 2009 Report *Meeting the 2050 Freight Challenge*, prepared for Infrastructure Partnerships Australia also emphasises the amount of growth expected and notes that:

> “These forecasts demand immediate action as key transport links are already experiencing capacity constraints and congestion as a result of inadequate infrastructure. Further growth will increase the demand for transport services at a local, state and national level, placing existing freight corridors under severe pressure and compounding the inefficiencies that currently exist. With many of our key freight transport links already congested, it is critical that efficiency is improved and, where necessary, additional capacity is provided. Supply chain costs represent a significant cost of doing business with up to 10 per cent of the final cost (and carbon footprint) of a product derived from its transportation. If capacity constraints and inefficiencies in the freight transport network remain unaddressed, it will have significant implications not only for the sector, but across the national economy. Every one per cent increase in efficiency will save the economy around $1.5 billion in costs associated with Transport and Logistics (based on current values).”

Having set this as a backdrop they then cite the National Transport Commission, headlining that transport productivity reform has stagnated, and suggest the following as some of the major barriers that need to be addressed:

- A need for stronger national leadership;
- More effective coordination between jurisdictions and industry bodies;
- A need for truly integrated long-term (50 year) planning across transport modes to focus on achieving efficient end-to-end movements in a freight supply chain, often featuring multiple modes;
- The complexity of existing market structures;
- Regulatory burden and complexity, in terms of both the amount of regulation and the number of bodies which administer it;
- Pricing of infrastructure access that does not reflect actual costs and creates market distortions, a situation which may be further complicated in the short term by the transitional arrangements for the Carbon Pollution Reduction Scheme;
- An investment environment that can be unattractive to private sector investors.

Sydney Airport provides an assessment that suggests that it provides or generates:

- Around 206,000 full and part-time jobs, or about 6% of the Sydney workforce.
Good quality jobs – average wages for airport workers are about 18% higher than the NSW average.

Around $16.5 billion in contribution to NSW’s annual Gross State Product, representing approximately 2% of the Australian economy and 6% of the NSW economy.

Around $7.4 billion in contribution to household and family incomes every year.

This estimate needs to be carefully considered and fully understood (as per the discussion above) in terms of what it includes. But it reinforces that there are a multitude of airport impact studies (examples can be viewed - www.pdfxp.com) all of which make the point that in today’s economy, airports are a critical part of the economic infrastructure. Consistent with the Madden quote above, the Melbourne Airport cites their contribution in a dynamic change perspective:

“This increased productivity has, over the past five years to 2006/07, generated 9,713 extra jobs and added over $950 million to Gross State Product, above what would have been achieved with average industry-wide productivity”.

By way of comparison, the latest Adelaide Airport economic impact assessment (2008) estimated that, in total (including the direct and multiplier impacts), Adelaide Airport contributes $1.6 billion to Gross State Product and supports employment of over 16,500 FTE’s jobs. This represents in the order of 2.3% of State economic activity.

Similar studies exist for Ports (see for example Fremantle Port: Its Economic Impact, March 2000)

In a different context, an interesting report is one produced by the NSW Department of Industry and Investment and the Freight and Logistics Council of NSW, entitled Four Key Supply Chains: Opportunities for Innovation (2006). This report is an industry strategy. Of relevance for the SA based sector, the key conclusions were:

- NSW has the scale and locational advantages to be Australia's pre-eminent freight and logistics centre, yet some businesses locate elsewhere.
  - NSW’s considerable demand is supplemented from a variety of markets.
  - Some ports and airports are growing faster in other States, but from a considerably lower base.
- Challenges for freight and logistics in NSW include:
  - Providing a convincing cost benefit analysis which will demonstrate the State’s advantages.
Accommodating difficult physical geography and natural infrastructure gaps around and within Sydney.

- Industry stakeholder input has consistently identified critical drivers of logistics costs in NSW; poor utilisation of both road and rail assets, failure to make full use of truck load capacity, and insufficient availability of competitive rail freight services.
- Infrastructure gaps are known drivers of cost and are being addressed by others.
- Industry costs can be significantly reduced without major infrastructure spend.

### 3.6 Key Conclusions for Industry Strategy

The key conclusions of the above analysis are that:

- The Transport and Logistics sector is a significant component of the state economy in terms of how many jobs it creates directly and indirectly, and how much it generates by way of incomes. As such it is important to ensure there are policies in place to ensure its effective and future development.
- Secondly, and probably more importantly, the importance of the sector in terms of facilitating activity in the economy as a whole is critical, and small shifts in industry efficiency have potentially very significant benefits in terms of employment and income growth.

The key questions that would support the arguments in the above in developing an industry strategy include:

- Is the sector sustainable – is it generating profits, is it reinvesting. Will it remain established in SA or does it face competition in winning work from interstate and overseas based companies?
- How efficient is the SA freight Sector both directly and indirectly so that it delivers the broader economic benefits.
- What critical policies and strategies and supports are most important in improving the efficiency of the sector – efficiencies that will protect its role as an industry, but also provide benefits for the users of its services.

These and other key industry issues are address in the following sections of this report.
4. External Assessment - Key Issues and Trends

Globally, the Transport and Logistics Industry has been under extreme pressure since the financial crisis in 2007 which arrived on top of rapidly escalating fuel prices. While prospects look brighter for 2010, the global credit crisis has weakened demand for freight and personal travel with consequences for Transport and Logistics firms, along with transport infrastructure providers. Globalisation, which accelerated the impact of the financial crisis, has also placed increasing demands on the Transport and Logistics supply chain which has seen vastly improved efficiencies through the adoption of information technology (e.g. global databases and inventory tracking) and service outsourcing. On a more positive note, industry profits are expected to recover from 2010 as freight and passenger movements recover on the back of an improving Australian economy.

All nations face the challenge of providing sufficient and efficient sea, air, road and rail infrastructure. The Transport and Logistics Industry has considerable economic, social and environmental impacts. Its contribution to economic prosperity is the major focus of this assessment. However, it also makes a substantial contribution to the living and employment options available to the residents of the State, along with holiday and entertainment opportunities. Its contribution to environmental outcomes is also an important consideration for corporate and community planners. Government policies designed to reduce emissions are likely in the near future and these will have impacts for industry cost structures.

A comprehensive external assessment was undertaken as research background for the SAFC strategic planning process and is summarised below.

4.1 Global

Over the last 10 years, freight and logistics based businesses in Australia have faced an increasingly volatile global environment. Influential trends and events during this time include:

- Accelerated ‘globalisation’ facilitated by the ‘information economy’ and improved transport effectiveness (particularly freight tracking).
- Globally, increased political and religious unrest.
- The rise of global terrorism and associated attacks on Western interests increasing travel and freight risk.
• The emergence and spread of new diseases such as Swine Flu and Sudden Acute Respiratory Syndrome (SARS).

Some of the major global issues and trends confronting Australian freight and logistics interests in more recent years include:

• Sustainability – governments, businesses and consumers are being more highly driven by the need for environmentally sustainable practices. There has been an emergence of ‘eco-firms’ and higher values attached to eco-friendly products and services. Policies and procedures to deal with climate change will also have a significant impact on the freight industry, however it may evolve (e.g. emissions trading or carbon taxes etc).

• The continued emergence of Asian economies and population growth, especially China and India. Urbanisation is rapidly gravitating to Asian cities, as is demand for Australian products and services. This population growth will eventually drive rural Australia – population of the world will increase by a third by 2050 (Prescott Securities Newsletter – Summer 2009/10) while demand for agricultural goods will increase by 70% due to rising living standards in poor and middle income countries.

• Rapid growth in commodity demand and prices, especially from China and India, fuelling the current ‘mining boom’ in South Australia.

• Ageing of populations in industrialised countries, including Australia, and the implications for human resources.

• Internet Revolution – from globalisation to global participation. There has been rapid transition from Internet consumption to creation via uploading video, music and podcasts, to blogs and personal sites. Companies and consumers have much greater expectations when seeking information on freight movements.

• Financial globalisation and a rapid increase in international capital flows, resulting in higher risks associated with global financial trends.

• Economic turbulence - The recent global credit crisis and share market crash, the consequences of which are still working their way through regional economies. Important trends for freight and logistics businesses to monitor include:
  o Oil demand – and implications for prices, with expected rising fuel prices in the short run as the world economy recovers with implications for freight modes and destinations. This is of course an exacerbation of what is likely to be a long-term issue – with the emerging demand from China etc. clashing with supply and reserves.
Unemployment and consumer confidence, and their impacts on product demand.

Property demand and valuations, and their impacts on demand for commercial and industrial space/rents.

The ability to raise capital on economically sustainable terms to fund expansion programs.

While these global conditions will have some impact on South Australia’s freight and logistics industry, the sector is strong domestically, which affords it some insulation from global trends and economic impacts.

### 4.2 National

In Australia, there have been some particular developments in recent times that have had important consequences for trade, freight and logistics. These include:

- Appreciation of the Australian dollar and its consequent impact on exports.
- Climate change and unpredictable weather patterns.
- Continued population growth, increasing demand in service industries such as freight and logistics, while also increasing demand in the property and rents sector.
- Trend toward the harmonisation of regulations across the States.

### 4.3 State and Regional

In South Australia and its regions, there has been a ‘Perfect Economic Storm’ that has severely impacted the State’s dominant horticulture and viticulture industries including:

- The loss of exports resulting from the appreciating Australian dollar.
- Continued drought conditions and water restrictions.
- Increasing global horticulture competition.
- Global wine surplus.
Falling wine grape prices.

Disintegration of family based business – social fabric under threat.

Demise of large corporates National Foods; Cockatoo Ridge; etc.

Notwithstanding these problems, and the global financial crisis, South Australia and the regions are seeing longer-term growth in the mining and defence sectors. Sustained appetites from China and India for mining and energy exports are expected to largely offset the current setback in horticulture and viticulture, and associated manufacturing/value adding industries.

4.4 Industry Consultation

4.4.1 Key Issues

In addition to the external assessment undertaken as part of the Strategic Planning process, a small sample of recognised industry participants was selected to contribute to this strategic assessment. A consultation guide was prepared and approved by the SAFC and participants were consulted via telephone and email. The key external issues to emerge from this consultation are noted below.

Global

- The reaction to the impacts of the Global Financial Crisis (GFC) on some overseas multinational companies with divisions operating in South Australia. Some decisions have already resulted in the closure of a couple of SA based manufacturing facilities e.g., Bridgestone & Berri (National Foods) but given the recent events in Europe it is not clear if this is the end of these motivated rationalisations.

- Shortage of direct calls from international shipping lines adds to the cost of goods when they have to be land bridged to or from Melbourne or from Perth because some lines do not call into Adelaide.

- Depressed global market.

- Aftermath of 2008 GFC - current severe slowdown in Europe and likely global impacts.

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Note: This section contains the raw responses supplied by the consultation participants and have not been edited by Hudson Howells.
• Capacity was reduced following the GFC and some trade routes shut down entirely. This capacity has not all been turned back on in the recovery period so capacity is constrained and this is forcing up prices and routing is inefficient and slow.

• Investment in freight infrastructure appears to have stalled during the GFC and has not fully recovered. New capacity therefore won’t be available for some time.

• Rising oil prices and probable medium term supply restraints coupled with slow development of alternative fuel sources.

• Climate change: European Greenhouse Gas (GHG) taxes, discrimination against long haul carriers and the ‘food miles’ concept (i.e. the efficiency in the food supply chain) and future impact on Australian exports to Europe.

• Increasing global dominance of Middle East and Chinese carriers and decline of ‘legacy’ carriers.

• Congestion – in ports (ships competing for berths), down turns in trade causing cancellation of services and then sudden upswings in trades.

• Emissions and Alternative Fuels – Carbon footprint reductions and emissions reductions.

• Trade Flows – equipment imbalances (Adelaide is a net export port).

• Equipment and vessel shortages - caused by trade imbalances and global downturns in trade.

• Consultation with Industry – Governments need to keep in contact with day to day issues to make informed decisions.

National

• The Australian economy is definitely 2 speed with the mining industry in WA & Qld very strong while the rest of the country is still recovering from the recent GFC. As a result many transport companies are coming under increasing pressure from freight owners to take costs out of the supply chain particularly through reduced freight charges. It would appear the gap between road and rail prices has narrowed as road operators strive to hold customers and market share.

• An imbalance of freight coming into SA on certain corridors increases the cost of outgoing goods. For example a freight forwarder sending a container of goods from Adelaide to Brisbane by rail will factor in the cost to repositioning that container empty into Sydney or Melbourne because there is not the freight available in Brisbane for Adelaide to allow that container to be loaded back to Adelaide.
The inability of the industry to spread ordering and transit requirements over the week causes peaks in the supply of capacity and hence additional costs.

A lack of co-ordination between the manufacturer or distributor of goods and the receiving customer. There are many instances where the forwarding customer demands immediate transit only to find the receiving customer does not want to take delivery and the goods will sit in the container at the destination freight terminal or forwarder’s depot for several weeks. A more co-ordinated approach would allow the freight to be conveyed on off peak services which would assist in balancing the task, reducing costs through more efficient container usage and preserving key end of week capacity for genuine just in time freight.

Exchange rate with strong Australian dollar.

The slow pace of aviation deregulation in the Asian region running counter to Australian efforts to liberalise access to capital markets, airline equity exchanges and route access.

Likely rise to dominance of Middle East hubs and corresponding decline in Singapore hub in which Australia’s primary investment lies.

Rapid growth of Australian and Asian regional low cost carriers using narrow-bodied aircraft unsuitable for freight carriage.

Ongoing consolidation of national industry players is reducing competition and increasing prices.

Private sector infrastructure expenditure still appears to be in GFC mode.

Infrastructure – Lack of planning and investment in future requirements like building new wharves and facilities, upgrading navigational aids, roads, bridge and rail upgrades to promote use of larger trucks and trains. Replacing aging equipment to make use of latest technology. Maintenance of equipment and infrastructure both government owned and private e.g. Navigational aids, Wharf Sheds, etc.

Government regulations and planning for land use in port precincts – lack of any forward planning 10 -20 years ahead or budgeting.

Effects of other Regulation on shipping e.g. mining tax, differing road weight regulations by state and restricted travel during daylight hours.

Consultation with Industry – Federal government seems poor and State a little better. Government awareness of the shipping industry’s importance to the Australian economy at both federal and state levels.
Industry training for new recruits - tends to be a funnelled learning process in only a few areas as most companies have centralised operations interstate.

Investment in Port infrastructure by state governments and port companies, where private sector needs to show a return for investment to shareholders.

Ownership of ports by private companies needing a return on investment, the responsible party to invest seems cloudy with the usual scenario being retrospective investment instead of proactive investment.

Competition – when competition is too aggressive and ports become over serviced prices fall and no one makes money, causing shipping companies to not reinvest or cancel services. Trade imbalances can have the same effect.

Container/ship shortages when there is a higher demand than can be serviced by the existing fleet of ships or containers, prices trend upwards but exports/imports suffer.

**State**

An inefficient metropolitan corridor road system adds to time and cost to freight transport – although it is noted that this is now being addressed but there is still a long way to go.

Overall available freight tonnage fluctuation.

Access issues - lack of non-stop air capacity and seaport restrictions.

Resource sector dominance.

Slow pace of Adelaide service growth to key international markets and continuation of domestic market concentration (Adelaide 2% of Australia’s international passenger movements versus 7% of interstate).

Fleet, service and capacity strategies of carriers and effect on ability of Adelaide to attract new services (A380 too big/A320 insufficient range versus new hub-bypass opportunities as carriers equip with B787/A330).

Most recent Adelaide international growth by carriers using B737/A320 aircraft (Air NZ/Auckland, Pacific Blue/Bali/Nandi) unsuitable for freight carriage and/or by carriers without freight focus.

Impact of the Adelaide Airport curfew.

Failure of availability of main-deck freighter capacity to impact on SA exports (volume *decrease* average 0.4% per year since 2003 implementation of Singapore
Airlines freighter. Average annual increase of Adelaide loadings of 9.6% but mostly recapture of east coast transhipments rather than export growth).

- Services continue to be Sydney-centric with no new services calling into Adelaide.
- Infrastructure – lack of investment in new equipment e.g. container cranes at outer Harbor terminal. Terminal has only one post panamax crane delivered and other cranes are now 30 plus years of age and too small to service newer larger vessels now calling at Port Adelaide.
- Car storage facility for import/export of vehicles at Outer Harbor - was to be upgraded but has been put on hold due to downturn in trade. Once export trade picks up again the facility will be inadequate.
- Long term planning – 10-30 years with dedicated land use for shipping related uses, areas now being turned into housing with complete disregard for the future requirements of the state.
- Investment and maintenance in new facilities and upgrades of existing facilities, with Audits of the facilities to ensure they are appropriate for their intended use. We have a critical shortage of loading facilities with delays to the decision making process for Port Bonython effecting two projects already, Ironclad and IMX Resources. Western Plains Resources having to barge ore to deep water anchorages to load onto bulk carriers and Centrex Metals having to buy land and build their own facility because they are having to wage a war with the people of Port Lincoln. Consultation with industry to ensure their requirements are met is paramount. Investment in additional tugs is governed by the demand in Port Adelaide and regional ports.
- Competition between facilities e.g. the Container Terminal at Outer Harbor - lack of competition and investment e.g. were promised two post panamax cranes when joint venture approved but only delivered one crane. The existing inadequate 30 year old cranes will be refurbished once again.
- Shortages of labour at the Container Terminal at Outer Harbor that causes ships to be delayed, trucks to be delayed in the yard, juggling of ship schedules to the detriment of some ships with delays costing tens of thousands of dollars in some cases. Shortages of labour to man tugs 24/7.
- Container shortages – caused as South Australia is a net export state, there is additional cost to move in empty containers to cover demand.
- Rail service shortages on the Melbourne to Adelaide line where some overseas destinations are not served ex Adelaide directly. The two operators have reduced
services from six days a week to both offering two days a week, with demand for Friday services now charged a premium and the services usually oversubscribed.

- Potential effects of a mining tax on shipping and investment in infrastructure to meet the State’s future demand e.g. Sheep hill, Port Bonython and Port Lincoln to name some projects likely to be effected.

**Regional**

- The cost to distribute goods to regional centres can at times almost exceed the cost of the interstate line haul task which makes goods produced outside of the metro area less competitive. The promotion of regional transport hubs may help reduce these costs through the scale of economies.

- The regional rail network is either a different gauge to the interstate network or not connected to it (Eyre Peninsula) so there is no opportunity for the seamless transport of goods from regional areas for export to other states on the rail system.

- Infrastructure problems.

- Small size/slow growth of most markets not attractive to carriers operating larger aircraft capable of accommodating freight.

- High cost of developing regional airport terminals and pavements to accommodate larger aircraft and their associated security requirements where the market is large enough to justify them.

- Failure to develop regional leisure/tourism markets from traditional drive markets to air access, exacerbated by relatively high cost of regional air travel on small aircraft.

- Mining projects expected to generate increasing demand for fly in-fly out contracts, which often underpin lower-yield scheduled routes.

- Roxby Downs township growth with proposed expansion of Olympic Dam mine expected to require quantum increase in air service level/aircraft type.

- Lack of Adelaide based capacity pushes regional companies to use other entry/exit points (e.g. Melbourne/Sydney). This increases costs and reduces competitiveness.

- Infrastructure – Rail /Road /Bridges to allow free flowing access to ports.

- Regulation – to allow for 10-30 year plans to assist the easy development of facilities to promote exports/imports. Simplification of approval processes which seem to be over administered and governed by the wishes of minority groups. Planning and retention of land for specific use by shipping related industries.
- Maintenance of facilities and audits to ensure they are fit for their intended use and keeping with world’s best practice. Road/rail maintenance to keep pace with changes in the respective sectors to make use of the most up to date and modern technology.

- Investment by Port Authorities to ensure that the facilities are up to world’s best practice and capable of servicing more than one commodity/client, to ensure there is a fair platform for competition. Auditing of the facilities to ensure they are kept up to scratch.

- Long term planning for 10-30 years in consultation with effected industries to plan and build new facilities where they are required.

- Ownership – ensuring that there is no detrimental effect on industry players, mining, shipping, agricultural, road and rail by private ownership and ensure there is as much competition as possible even though ownership is held by one company.

### 4.4.2 Major Industry Drivers

Industry participants were asked to identify what major factors they thought would drive development of the State’s Transport and Logistics Industry during the next 10 years. The responses are provided below.

- If all goes well the mining industry, Olympic Dam in particular, will drive the State’s economy and Transport and Logistics industry over the next 10 years.

- The wine industry while currently in a mini slump will continue to play a major role in SA and the Transport and Logistics industry as it supplies interstate and overseas markets.

- It is expected (or hoped) GMH will continue to manufacture cars at their Elizabeth plant. To some extent the future of the GMH plant will be dependent on the success of cheaper overseas manufactured vehicles that enter the Australian market and the success of GMH in securing orders for the Elizabeth plant from overseas e.g. the American police car.

- Steel manufacturing should continue at Whyalla for at least the next 10 years which will drive associated Transport and Logistics industries. The longer term future may be dependent on the success of cheaper overseas imports in gaining market share which in turn will influence the economic feasibility when it comes time for major reinvestment in the plant i.e. blast furnace relining.
• It is likely freight forwarders will be placed under increasing pressure to add value to the supply chain or risk major freight owners dealing directly with line haul suppliers. As a case in point Woolworths will commence on the 28th of June dealing directly with the NT rail freight company FreightLink. Previous long term Transport and Logistics provider Toll have been removed from the process. Woolworths have purchased their own containers and have engaged PUD contractors in SA and NT. If this model is successful in providing them with a competitive edge, it is logical other large freight owners will follow suit.

• Higher demand from mining and other industries, population growth and urban sprawl.

• Vehicle size and access – Train sizes (length and double stacking) road transport – trailer sizes and weights – National codes.

• Infrastructure – Berths, Wharves and loading facilities and location as close as possible to the origin with multi use facilities the most beneficial. Updated cranes at Outer Harbor Container Terminal to cope with larger vessels already servicing Adelaide but restricted by the size of the outreach and air draft of the 30 year old equipment.

• Long term planning (minimum 10-30 years) with funds set aside to pay for the plans. These plans to be bilateral and not reflective of the current governing party in Australia. This planning to have an auditing process in place to ensure the money is being spent as per the plan or if not, that the plan has been modified but meets the major political parties approval.

• Mining is the number one driver. Major infrastructure is required to ship ore from mine to market. Local government appears to be standing back while the mining companies look like duplicating their shared requirements.

• A slowdown in China will have major impacts on all export related industries in South Australia. With exports already falling by 25% p.a. a significant softening in demand from China will see major disruptions across all industry sectors, but particularly mining. The impact on private sector infrastructure spending would be very damaging.

• Federal funding continues to be eastern seaboard focussed. However, if all that has been promised is delivered we should see several major projects completed in the next 5 – 10 years. This should see heavy traffic move around the city more efficiently.

• A major concern is the lack of State-Federal cooperation and partnership that will see a large amount of committed funding not spent or re-directed to other projects.
• Global economic conditions conducive to aviation growth.

• Fuel availability at an ‘economic’ price that allows continuing development of discretionary/leisure/tourism travel.

• Better success in developing inbound international/interstate/regional tourism demand to balance carriers’ current dependence on SA resident outbound travel.

• Passenger service growth using wide-bodied aircraft suitable for freight carriage.

• SA imports growth, which drives supply of international main-deck freight capacity, coupled with SA export growth to utilise capacity.

• Expansion of the mining sector.

• Apart from continuing local Adelaide North-South road priorities, there is a need for access in regions to potential new ports, mines, etc.

• Hoping to see some better East-West flow to the Airport.

• Expansion of population.

4.4.3 Efficiency Improvements

Industry participants were asked what efficiency improvements (infrastructure and/or operational) would have the greatest impacts on the industry’s contribution to State plans and economic activity. The responses are provided below.

• The completion of the South Road corridor upgrade must be a priority. The importance of a major corridor road system to both ports and interstate rail terminals cannot be underplayed in improving the competitiveness of SA exports.

• The standardisation and connection of the Eyre Peninsula rail network to the interstate system may provide access to important bulk shipping ports in Thevenard and Port Lincoln for the export of minerals that have commenced being mined in central SA.

• For the container trade, replacement of the 30 year old cranes by DP World by new post panamax cranes in order to be able to service today’s ships with a view to also servicing vessels that will be calling into Adelaide within the next 5 years. The older smaller ships cause delays due to operation restows required interstate as the smaller older units cannot perform the required lifts due to physical restrictions.
• Building approval and construction of new facilities where they are required in a prompt and less restrictive manner e.g. Sheep hills, Port Bonython, Port Lincoln to service the mining industry needs. Removing a lot of the red tape.

• Road / Rail /Bridge upgrades to promote the use of the most efficient forms of transport.

• Possible further dredging /enhancement of the channel entrance to Outer Harbor and the addition of a second entry to the Port River north of the Outer Harbor breakwater to allow uninhibited access to vessels when “vital infrastructure vessels” are travelling up river to “M” berth.

• Leadership by the State government in infrastructure development by the mining sector.

• Complete the North-South corridor.

• Greater range of direct services by suitable aircraft to key overseas tourism source markets and export destination markets.

• Introduction of smaller long-range aircraft such as B787 suitable for direct hub-bypass routes to Adelaide so as to increase opportunities for direct service growth.

• Better access to Adelaide Airport (curfew and Commonwealth regulatory policies).

• In the metropolitan area, grade separation of tram/train with roads, possible re-route of major rail freight lines to avoid built up areas, review of metropolitan traffic flows ... one way systems and traffic light synchronisation.

4.4.4 Government Policies

Industry participants were asked what new government policies and strategies would be important the efficiency improvements identified above. The responses are provided below.

• No new strategies just a commitment to finish what has been started (South Road corridor). It is vital this project be completed and not become a “political football”. The costs will not reduce if it is delayed and hard decisions may need to be made in order to achieve this.

• This (Eyre Peninsula rail network) would require significant government funding and a commitment to support rail over a road option.
• Improve infrastructure (roads and rail) on main routes into and out of Adelaide and shipping facilities – connectivity with main highways.

• Rail upgrade to sustain double stack and 1800 meter trains on the Adelaide to Melbourne rail line.

• Compulsory investment in post panamax cranes at Outer Harbor container terminal.

• Dramatically reduce the amount of regulatory compliance required before planning / building approvals are granted to build new facilities especially when large scale investment is being proposed and the benefit to the community is deemed as substantial. Perhaps the government could underwrite projects like Port Bonython, Sheep Hill and other significant projects so that construction work could commence on the vital infrastructure to make these mines competitive on a world standing, instead of allowing them to linger and possibly die because they become uneconomical due to the lack of infrastructure.

• Removal of curfews and restrictions that impede the free flow of cargo.

• The State government must ensure Federal funds already committed are fully utilised and deliver results for the State.

• Aviation liberalisation in SE/NE Asia.

• Continuation/enhancement of Commonwealth regulatory policies to liberalise access to smaller gateways while continuing to trade access to the larger gateways.

• Re-examination of the Adelaide Airport Curfew Act and Regulations to assess what additional flexibility can be introduced without reducing the amenity of surrounding residents.

• New policies to restrict population growth in high-noise areas surrounding Adelaide Airport to reduce pressure to retain existing inflexible curfew provisions.

• Policies to address the relatively high costs of operating to Adelaide Airport.

• Encourage investment through public private partnerships (PPPs).

• Consider toll roads and levy introduction directed to road upgrades and provision of new roads.

• Federal and State Federal Governments come and go with their key priority “to be re-elected as a party followed by each member also being re-elected”. As a result, there is no accountability for their “policies” on infrastructure and development. Therefore, it is important that they are held accountable. Governments must have a long-term bi-partisan approach. We do not want to see another debacle as we have
with Newcastle ships queuing because Government and others have not foreseen growth and not developed infrastructure to cope with current and anticipated growth. To counteract this, a “futures fund” should be set aside for infrastructure.
5. Internal Assessment – Strengths and Weaknesses

Industry consultation was also undertaken to assist with an internal assessment of the State’s Transport and Logistics Industry. Industry participant responses are noted below (again unedited).

5.1 Industry Sustainability

- The State’s Transport and Logistics industry is sustainable and profitable but has experienced downward pressure on revenues through reduced volumes and lower freight charges since the GFC. To preserve bottom line results many companies have rationalised costs often in the form of staff redundancies.

- However, while all of this has been occurring there are several current and recent instances of reinvestment in logistics and transport facilities in SA. Examples include Border Express relocating to larger premises in Salisbury, the new Doser Transport depot in Cavan and the Allsons Container Park currently under construction in Wingfield. The Adelaide based national refrigerated transport company Harris is about to consolidate its Adelaide and Virginia operations at their Dry Creek site which will involve an expanded workshop, refrigerated warehouse and administration complex to support their national operations. Another recent addition has been the construction and commissioning of Detmold’s warehouse in Regency Park.

- Unfortunately for SA, in many instances, it is not in control of its own destiny with decisions to close or relocate businesses being made outside of Australia. Recent examples include closures of the Bridgestone tyre manufacturing plant and the National Foods owned Berri Juice plant. Earlier examples saw Hills Industries and Clipsal relocating manufacturing to Asia to benefit from cheaper manufacturing costs and the closure of Mitsubishi.

- The key is to make the State as easy as possible to do business in. One contributing factor is to have an efficient transport system, the others are more in the domain of government policies and charges.

- Ships call where there is cargo. Container volumes at present can sustain the current services with sufficient competition, where trade imbalances change the nature of the trades the shipping industry usually makes adjustments to the services over
Too much competition will of course result in profits being eroded and services becoming unsustainable leading to a reduction in reinvestment.

- The Port of Adelaide has Melbourne as its main competition. More shipping services loading out of Adelaide are taking their toll on the declining frequency of the two operators of dedicated container shipping trains to and from Melbourne. Their services have reduced from 6 days a week in both directions down to two days a week in both directions with a premium being changed for Wednesdays and Fridays (the peak days). Market share for Adelaide loading cargo is growing steadily.

- Investment by DPW in new cranes at the Outer Harbor container terminal is seen as paramount as we only have one crane that can service vessels currently calling at the terminal and with two berths to cover the task is impossible to manage with delays inevitable.

- Investment in infrastructure to service the mining industry is yet to materialise with some projects almost lost in a mire of regulatory requirements – Port Bonython, Sheep hill, Port Lincoln.

- Most bulk grain ship loading facilities are owned and operated by Viterra who has the critical mass to invest in upgrading of infrastructure and building of new sites e.g. Outer Harbor No. 8 Berth.

- Definitely losing market share to interstate competition.

- Certain industries are losing market share to overseas competition (wine, automotive, manufacturing, ICT, etc.).

- Profitability is patchy. Airfreight strong, sea freight OK, road transport is good while rail looks to be in bad shape (and investment cost is high).

- International air access to the State has lacked critical mass and has been marginally sustainable since the implementation of international flights in 1982.

- The State’s share of international air capacity has nevertheless increased over the last 10 years from 1.7% of national capacity in 2001 to 2.2% in 2010 (NHSS April). This is in spite of progressive threats to Adelaide services from the east-coast hub strategies of the national carrier, bilateral code-sharing behind gateways and the more rapid growth of low cost carriers focussed on the bigger Brisbane/Perth/Melbourne/Sydney Australian resident markets and/or the bigger leisure destinations such as Gold Coast and Cairns.

- This suggests that Adelaide’s direct international services will continue to increase in frequency and range, particularly as new markets, such as China, Thailand, the Philippines, etc, reach sustainable size through use of indirect access over other
gateways, and new smaller longer-range aircraft come into increased use. Freight/logistics opportunities will increase correspondingly.

- Insofar as airfreight is concerned, there is no doubt that the market is sustainable but constrained by lack of capacity which we are trying to develop and incentivise in conjunction with the State government.

### 5.2 Competitive Advantages

- Low cost land compared to east coast locations.
- SA is at the centre of the interstate rail network including direct access to the NT.
- Relatively close to east coast markets.
- Loading cargo directly ex Adelaide as opposed to potential delays in railing cargo to Melbourne due to the limited services.
- Less handling of cargo and therefore less chance of damage.
- Regular Adelaide shipping callers.
- Closer to export markets (transit time).
- Cost to rail to Melbourne to load.
- Cargo handling is efficient and above national standards.
- Local expertise is a long way ahead of the eastern seaboard.
- Lower labour/business costs?
- Proximity to east coast markets (relative to other regional economies).
- From an airfreight perspective, we have plenty of demand, slots available, uncongested transit areas, no charge on freight tonnage and reduced rates for pure freighters.

### 5.3 Industry Strengths

- Relative closeness of metro based industries to the CBD, airports, shipping ports and interstate rail terminals compared to other states. For example in Melbourne, the
major industrial precincts of Dandenong and Altona are some distance from air, sea & rail ports.

- There is an abundant supply of rail and road capacity available for SA (domestic and international) exports and imports.

- For the long distance line haul to Perth or the NT SA freight forwarders can “piggyback” on the larger Melbourne volumes to share and minimise costs e.g. the loading of “A” trailers in b-double combinations or double stacking containers on rail.

- Direct Adelaide call vessels.

- Shorter lead times to market.

- Close cooperation with state government - Container Terminal Monitoring Panel.

- Quicker transit time to markets.

- Mature industry with a stable and experienced workforce.

- Freight companies are well managed and provide high levels of service.

- Industry is a leader in innovative freight solutions.

- Congestion free airport, adequate runway length, single terminal for international/domestic services, quality of terminal.

- Size of domestic market results in high frequency flights to primary domestic destinations, which also improves access to range and number of international service opportunities out of other gateways.

- Direct daily links with Asian airports.

- Cold storage facilities at Adelaide Airport.

- Free loading platform at Adelaide Airport.

### 5.4 Industry Weaknesses

- The state has 3 different rail gauges:
  - Interstate – standard gauge
  - Eyre Peninsula – narrow gauge
o Other intrastate – broad gauge

- The Eyre Peninsula rail network is not connected to the interstate or other intrastate network.

- An inefficient metro road corridor system for the fast movement of freight.

- Too much competition at times resulting in price cutting - lower profit and therefore less reinvestment.

- Too slow in reacting to demand for infrastructure, forces people to look outside of the state.

- Geographically located in an unsuitable location and lack the population to create critical mass required to attract services to some markets. (e.g. USA).

- Trade imbalances – we are a net export state having to constantly cope with container shortages.

- Attracting new people into the industry and teaching them an all round knowledge of the industry as most tasks are now handled interstate.

- Consolidation is shrinking competitive pressures.

- Freight space capacity issues are pushing freight interstate.

- With virtually no head offices in SA, decision making is interstate and overseas. Infrastructure decisions are therefore made remotely and not usually in SA’s best interests.

- Constraints to Adelaide access – curfew, high airport and Airservices Australia charges relative to competing airports.

- City-centric State – weak regional structure with no/few population centres of sufficient size to attract aircraft large enough to encourage leisure travel.

- Night curfew.

- Current limited parking at Adelaide Airport for simultaneous B747 pure freighter operations.
6. Strategic Implications

Consultation for this study indicates that the State’s Transport and Logistics industry is sustainable and profitable but has experienced downward pressure on revenues through reduced volumes and lower freight charges since the GFC. To preserve bottom line results many companies have rationalised costs often in the form of staff redundancies and there is anecdotal evidence that the State is losing market share to interstate competition.

However, there are several current and recent instances of reinvestment in Transport and Logistics facilities in South Australia that suggest that the industry is gearing up for expansion.

There is industry confidence that the mining industry will drive the State’s economy and the Transport and Logistics industry over the next 10 years. The wine industry, while currently in a mini slump, is also expected to continue to play a major role in driving the State economy and the Transport and Logistics industry as it supplies interstate and overseas markets.

The evidence from this study suggests that on an activity basis the Transport and Logistics industry in South Australia deserves attention as a significant provider of economic activity – that is it supports a significant number of jobs and generates incomes and wealth in the community. In this context alone, effective policy to maximise opportunities in the sector is important.

There is no doubt from this study that the major contribution that the industry can make to the South Australian economy is to improve its own productivity. The South Australian Strategic Plan includes key targets for export growth – and yet to achieve these targets will require competitiveness across a range of industries, and this study demonstrates how important the Transport and Logistics industry is in this regard.

Importantly, small shifts in industry efficiency have potentially very significant benefits in terms of employment and income growth. A 10% efficiency improvement could increase Gross State Product annually by $0.81 billion and result in of the order of 8,500 new jobs.

The Bureau of Infrastructure, Transport and Regional Economics estimates urban congestion will cost nearly $20 billion by 2015. With the freight task set to double by 2020, the greatest impact will be in urban areas, particularly around ports, inter-modal terminals, and distribution centres.

Clearly, from both a freight and passenger perspective, South Australian strategy and efficiency improvements should be focused on maximising the capacity and efficiency of all transport modes along with minimising future congestion around, and in access to:

- Adelaide Airport.
Based on the industry consultation reported in this study, capacity is a critical issue especially for air and sea freight access to priority markets. A strategy, including discreet responsibility, is required to grow South Australia’s international, interstate and regional commercial air and sea capacities through promotion and route development. In this context consideration must also be given to the increasing global dominance of Middle East and Chinese airline carriers and the decline of ‘legacy’ air carriers.

Other key issues consistently raised by industry included:

- A need for better statutory planning for land use in transport precincts, especially sea and air ports.
- Improved infrastructure planning and investment – including for example new wharves and facilities, upgrading navigational aids and road, bridge and rail upgrades to promote the use of larger trucks and trains.
- An inefficient metropolitan corridor road system which adds to time and cost to freight transport.
- The completion of the South Road corridor upgrade and major corridor road systems to both air and sea ports and interstate rail terminals.
- The standardisation and connection of the Eyre Peninsula rail network to the interstate system to provide access to important bulk shipping ports in Thevenard and Port Lincoln for the export of minerals.
- Planning and investment in infrastructure to service the expanding mining industry, including regional infrastructure such as a deep water port on Eyre Peninsula.
- Re-examination of the Adelaide Airport Curfew Act and Regulations to assess what additional flexibility can be introduced without reducing the amenity of surrounding residents.
- The promotion of regional transport hubs to help reduce regional transport costs through the scale of economies.
SA’s Transport and Logistics Industry - Economic Impact Assessment and Strategic Analysis

- Addressing the high cost of developing regional airport terminals and pavements to accommodate larger aircraft and their associated security requirements where the market is large enough to justify them.

- Rail upgrade to sustain double stack and 1,800 meter trains on the Adelaide to Melbourne rail.

In terms of processes, research and consultation suggest that the South Australian Freight Council consider:

- The need for stronger State based and national engagement.

- More effective coordination between government agencies and industry bodies.

- The need in South Australia to plan for improved efficiencies through integrated long-term planning across transport modes to focus on achieving efficient end-to-end freight and people movements.

- Reducing regulatory burden and complexity, in terms of both the amount of regulation and the number of bodies involved in administration.

- Investigation of the pricing of infrastructure access to reflect actual costs and to minimise inefficiencies and market distortions.

Finally, in addressing the above strategic and key issues, there are sustainable industry competitive advantages and strengths upon which the South Australian Freight Council can launch a new era for advancing industry efficiencies including, for example:

- The close proximity of metropolitan industrial and commercial land to the CBD, airport, shipping port and interstate rail terminal compared with other states.

- Low cost land compared to east coast locations.

- Congestion free airport, adequate runway length, single terminal for international/domestic services and quality terminal.

- South Australia is at the centre of the interstate rail network including direct access to the NT.

- Loading sea cargo directly ex Adelaide as opposed to potential delays in rail cargo to Melbourne due to the limited services.

- From an airfreight perspective, there are uncongested transit areas, no charge on freight tonnage and reduced rates for pure freighters.

- Capacity to accommodate new shipping and aviation services.
7. GLOSSARY

- **Transport and Logistics Industry**
  For the purposes of this document, the term Transport and Logistics Industry (or T&L) incorporates the whole transport and logistics industry and not just the freight and logistics sector.

  ‘...it includes all those businesses involved in the sourcing, purchasing, transporting, storage and/or delivery of freight or passengers around Australia and the world.’
  *Survey off Employers’ Recruitment Experiences, Department of Education, Employment and Workplace Relations, Transport and Logistics Industry May 2008*

- **Socio Economic Impacts**
  ‘Socio-economics is the study of the social and economic impacts of [...] an industry (in this case Transport and Logistics)...], product or service offering, market intervention or other activity on an economy as a whole and on the companies, organization and individuals who are its main economic actors.

  [The impacts...] can usually be measured in economic and statistical terms, such as growth in the size of the economy, the number of jobs created (or destroyed)...[etc]’
  *WorldIQ.com - [http://www.wordiq.com/definition/Socioeconomic](http://www.wordiq.com/definition/Socioeconomic) accessed 13/9/10*

- **Multiplier Impact**
  The *multiplier effect* describes how an increase in some economic activity starts a chain reaction that generates more activity than the original increase
  For example, if a trucking company contracts to cart goods from A to B it will use staff (drivers, schedulers etc) and other service providers (eg: contract lawyers) to do so. These people will then receive payments (including wages) which they will in turn spend on other services, in laundries, restaurants or at the cinema.

- **Competitiveness**
  ‘...a comparative concept of the ability and performance of a firm, sub-sector or country to sell and supply goods and/or services in a given market’
  *http://en.wikipedia.org/wiki/Competitiveness accessed 13/10/10*

- **Ancillary Sectors**
  Includes internal (in-house) transport operations within other areas of the business sector. This includes items such as the Australia Post fleet operations as an example of a significant operator in this space. A food manufacturer providing their own delivery service is another example.

- **Hire and Rewards sector**
  The carriage for remuneration, of persons or goods, on behalf of third parties (OECD - [http://stats.oecd.org/glossary/detail.asp?ID=4047](http://stats.oecd.org/glossary/detail.asp?ID=4047)) . Includes line haul freight transport, and logistics and storage, but does not include ancillary sectors (as outlined above).
• **Full Time Equivalents (FTE's)**
  A standardised way of describing the size of the workforce based on the total number of ordinary time paid hours worked (excluding overtime and unpaid work). This measure of staffing levels converts the total number of hours worked by all staff (including part time and casual staff) to an equivalent number of full-time staff. For example, in a position in which 40 hours each week is full-time:
  - 30.0 hours = 0.75 FTE
  - 40.0 hours = 1.0 FTE
  For statistical purposes, Full-time employees are employees who usually work 35 hours or more a week. See Australian Bureau of Statistics - Labour Statistics: Concepts, Sources and Methods (cat no. 6120.0)

• **Induced Employment Effects**
  *Induced* employment includes all of the jobs supported by consumer expenditures resulting from wages to 'construction oriented' and 'supporting industries' employment.

• **Standardisation (rail)**
  The process of converting Australia’s rail networks to a single “standard” gauge. The distance between the inside edges of the rails of standard gauge track is 1,435 mm (4 ft 8 1/2 in).

• **Globalisation**