Rail Futures Institute Inc

Response to NSW Freight Policy Reform Consultation Paper

May 2024

This submission has been prepared by Rail Futures Institute Incorporated in the public interest. Rail Futures Institute (RFI) is an independent non-partisan group formed to advocate cost-effective rail and intermodal solutions for public transport and freight problems based on sound commercial, economic and social reasoning. Rail Futures members include experienced rail professionals, engineers, urban planners and economists.

This submission responds to the NSW Government's initial call for responses to the April 2024 Freight Policy Reform: Consultation Paper and questions posed by the Freight Policy Reform Program Advisory Panel. In doing so, we congratulate the NSW Government on its initiative in moving forward with this most important Freight Policy Reform process.

While RFI is not a direct participant in the business of getting more freight on rail, as an advocacy body with members having long experience in government transport administration and the management and operation of freight and logistics businesses, we consider ourselves well qualified to selectively comment on issues raised in the Consultation Paper.

The Panel has been asked to assist in developing guiding principles and policy about six general matters:

1. The role of the NSW Government and Australian Government and industry in making a step change in freight transport.
2. The major ports in NSW.
3. The road and rail networks.
4. Supporting metropolitan and regional intermodal terminals (IMTs) and other enabling transport infrastructure.
5. Considerations about freight in the identification and use of industrial land.
6. Embedding freight considerations into transport planning, prioritisation and investment.

We address each of these matters in responding to the Consultation Paper questions.

Discussion Question One:
1a. In relation to the above six matters, are there particular aspects of policy that are causing challenges to your business operations or efficiency?

1b. In relation to the above six matters, are there particular actions – short, medium or long-term, that you think the NSW Government alone or together with the Australian Government should take to support the efficient operations of your business?

Growth and development of freight on rail is impeded by the following:

- Different sources and levels of investment between roads and rail infrastructure.
- Different levels and structure of infrastructure usage charges for truck operators and freight train operators.
- Rail freight is much more heavily regulated than road freight.
- Rail freight has constrained rail capacity arising from 'passenger priority' policy.
- Track Access complexity – multiple providers statewide and vertical integration within the Sydney Trains domain.
- Lack of harmonisation between jurisdictions and track owners of rail infrastructure standards, systems, operating and safeworking rules and procedures.

Rail freight has significant potential to play a larger role in improving the efficiency of the nation's export and domestic supply chains. In a 2015 Australian Logistics Council press release, then Managing Director Michael Kilgariff observed *"With Australia's freight task projected to grow 80 per cent, between 2010 and 2030, there is clearly a need for more freight to be moved by rail …… ."*

Much of Australia's main line and regional rail freight system is under-utilised compared with its potential. It needs significant modernisation and catch-up investment as enablers of substantial productivity improvement. Under-investment in rail freight infrastructure, a regulatory and institutional environment which historically has been unsupportive of rail freight and changes within the freight transport sector have led to a significant decline in regional and interstate general rail freight volumes over the past 30 years.

This requires a reorientation of policy to explicitly recognise that an optimal transport outcome requires a holistic view of modal choice and an approach by all levels of government which recognises the relative potential of each mode to deliver an optimal outcome. The 'optimal outcome' in this context relates to service delivery capability, community costs, trauma costs and environmental issues, including net zero policy.

At present, it is more difficult to invest in and operate freight trains than trucks. Regulatory impositions are far more onerous for rail than for road meaning that barriers to entry on rail are higher. Even after surmounting this hurdle there are internal (to rail) issues of equitable access to the rail network. Notionally there should be equal access to the rail network for all rail operators, but in reality, the vertically integrated Sydney Trains has first call on capacity of the Sydney area network, after which other operators have access to any residual capacity. As a matter of principle, if the Government wishes to have 'passenger priority' policies then it should provide complementary rail capacity that avoids 'consuming' the capacity that should reasonably be available for third party freight operators.

Lack of harmonisation between jurisdictions and rail network managers in relation to a plethora of infrastructure standards systems, operating and safeworking rules and procedures has plagued the Australian rail industry for many years. Processes have been in place for a long period that have gradually improved the situation but there is a long way to go. Part of this slowness is due to

Australia's co-regulatory safety systems which do not specify these requirements but allow the various networks to continue to utilise their own systems provided they meet the test of operations being as safe as reasonably practicable. This contrasts with the U.S. system of prescribed standards, safety systems, rules and procedures. The Commonwealth and state governments have a key role in requiring uniform standards to be adopted as a condition of funding all major rail projects.

Discussion Question Two (rail freight)
Do you have recommendations or issues to note about rail freight policy? Some questions for consideration in developing your response:
• *Do you find the current rail freight policy is fit for purpose? Does it deliver an effective network for your freight delivery?*
• *What changes would you suggest for the future?*
• *To what extent do different rail tasks (such as the movement of bulk goods or containers) support a modal shift to rail?*
• *How do you see Inland Rail impacting or changing your operations? What should the NSW Government do to harness the benefits Inland Rail will deliver?*
• *Have you considered costs and benefits (including public costs and benefits)*

RFI's experience in relation to rail policy is that it is not what is said but what is actually produced (outcomes) that really counts. In this context, the policy of 'drip feed' ongoing improvement to the regional (CRN) network over an extended period is a policy that has produced good results. The same cannot be said for parts of the DIRN (ARTC managed network) which in recent times is showing up the slow degradation of some main lines. Nor the Sydney Trains managed track which has limited access (see previous section) and also involves numerous 'trackwork' shutdowns (although to be fair the Syndey area rail network has a number of alternative routes, along with some such routes in the country that in some cases can alleviate the impact).

This submission notes the challenge of transport decarbonisation in the context of more freight on rail and achievement of improved rail productivity, competitiveness and energy efficiency. It explains the significance of selective investment in improved rail infrastructure as a key enabler of more efficient rail.

Future investments by the Australian Government, in common with recent duplication of the Port Botany line and earlier projects such as the South Sydney Freight line, should provide additional separation of freight and passenger trains. Two projects that would materially assist are the partially completed Maldon - Dombarton rail link, which gets the briefest of mentions on page 65 of the discussion paper, and the Lower Hunter Freight Corridor.

Completion of the 35 km Maldon to Dombarton rail link would allow removal of most freight trains from the increasingly congested Tempe to Wollongong line including the Waterfall – Thirroul section that has had relatively frequent closures due to extreme weather events.

Work also needs to start on the Lower Hunter Freight Corridor. As noted by TfNSW in 2013, this will provide a dedicated freight rail line between Fassifern and Hexham, bypassing the Newcastle urban area. Although this proposal has surfaced again in recent times it does not seem to rate a mention in the April 2024 report.

A major issue for rail is that of resilience. Whether as a consequence of climate change or some seasonal weather quirk, the national rail network has had a succession of recent outages brought on by flood, fire, landslip, washouts and other issues. Resilience of the rail network (all of it, not just

sectional parts) is fundamental for rail freight operations. More attention needs to be paid to this issue to avoid these disruptions as far as is reasonably possible. It should not be a reactive 'after the event' practice. Where alternative routes are available, their use during such outages also adds to overall rail resilience.

In 2007, the House of Representatives Standing Committee on Transport and Regional Services, in its definitive report "The Great Freight Task: Is Australia's transport network up to the challenge?" observed that *"... the greatest need for Australia is the reconstruction and realignment of the main freight networks."* Seventeen years later, that need is as great now as it was then.

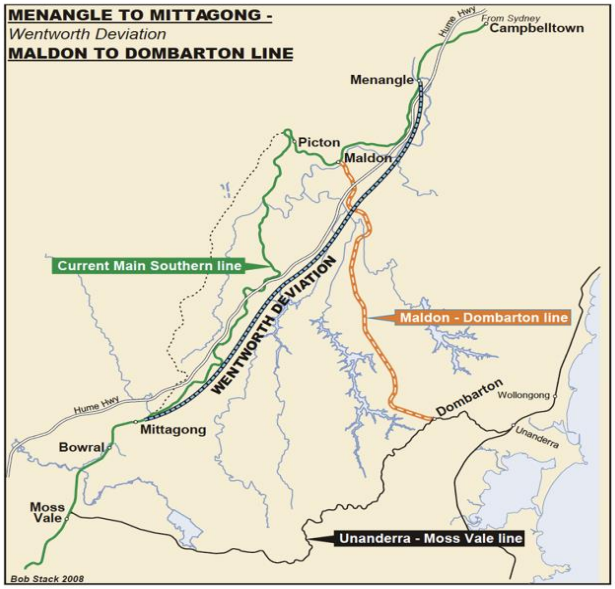
As noted in 2008 by the ARTC[1], ***"For rail to move to the next step in competitiveness, or even in fact to maintain competitiveness against a constantly improving road network, there is no alternative but to start to consider deviations of the current poorly aligned sections of the network.***" Under current infrastructure arrangements this issue largely falls to the Commonwealth Government and ARTC, but the need for state support and willingness to engage in complementary works on the CRN or ST networks is an important element.

Given that Inland Rail between Melbourne and Parkes is now confidently forecast for 2027 completion, a window of opportunity exists to plan and reserve land for significant upgrades to the main Southern line between Menangle and the Wallendbeen / Cootamundra area. Successively, this should comprise the Wentworth deviation between Menangle and Mittagong, the Centennial deviation between Breadalbane and Yass and the Hoare deviation between Bowning and near Cootamundra or (in the context of Inland Rail) to near Stockinbingal.

The total distance of these three deviations would be around 190 km but would not only shave around 60 km off the existing route distance but, with much higher average speeds achievable, freight train transit times would fall by two hours along with reduced crew costs, fuel usage and emissions. Passenger train time savings would also be significant. Commensurate reduction in infrastructure maintenance costs would result along with enhanced operator cost competitiveness.

For the first of these deviations, an urgent need exists to secure the 48 km corridor between Menangle and Mittagong (the Wentworth deviation) in the face of rapid urban encroachment around Appin and Wilton. This deviation will benefit all rail users, freight and passenger, between Sydney, Melbourne, Canberra and the Southern Highlands; also Sydney-Perth freight trains which operate via Cootamundra. Design standards for these Main South deviations should be configured for double stack container operation as well as standards required in future for fast or very fast trains.

[1] Australian Rail Track Corporation, 2008. 2008-2024 Interstate and Hunter Valley Rail Infrastructure Strategy



Comparison between existing rail alignment and proposed Wentworth Deviation

Bypassing sections of continuous curvature which severely restrict train speed will provide a virtuous circle of reduced freight transit time, reduced fuel use and emissions and lower rail operating costs, enabling rail to achieve increased competitiveness with road.

Private sector transport operators and major freight users have shown a willingness to play their part in a rail revival on this corridor by making substantial investments in new locomotives and wagons and in new interstate terminals at Moorebank and at Somerton[2] in Melbourne's northern suburbs. The Commonwealth's National Intermodal Corporation is funding the Beveridge terminal, also in Melbourne's north. Such assets help improve rail efficiency and reliability and reduce "last mile" operating costs.

From Beveridge, and possibly also Somerton, double stack container operations will become possible to Adelaide, Perth and Darwin via Parkes and Broken Hill from 2027 or soon afterwards. Completion of the full Inland Railway to Brisbane will enable double stacking to and from Brisbane.

The only significant location not to benefit with double stacking of containers will be Sydney. However, if the previously noted deviations are constructed to double stack standards and complementary work is undertaken on the residual existing railway, double stacking to Moorebank might also be achievable. It certainly will not be possible without the deviations – there is no reasonable prospect of the existing 'classic' railway ever being able to comply with the new standards.

Investment in rail freight is an investment in providing efficient, low-cost supply chains. It is an investment that will ensure the nation's growing freight task can be transported safely and efficiently at lowest economic, social and environmental cost to society.

Discussion Question Three: (re Ports)
Do you have recommendations or issues to note about ports?

[2] A private sector consortium, including a major superannuation fund, is investing in the new Somerton Intermodal Terminal at a cost of $400 million. The terminal is well sited with a major Coles Distribution Centre on site and another DC to be constructed there for Bunnings. An Amazon DC is nearby as is the Melbourne Wholesale Fruit and Vegetable Market. The terminal is planned to open in 2025.

Some questions for consideration in developing your response:

- *Port operations will change with increases in container trade and the decline of coal exports. What other changes do you anticipate?*
- *What are the best transport outcomes to facilitate these changes if they are desirable?*

Port Botany has the highest volume of containers transported by rail of all ports in the country, at around 400,000 TEUs per year. Port Botany is the only container port in Australia with on-dock port rail at all three of its container terminals. Port Botany benefits from a dedicated freight rail line between Macarthur and the port (56km), unimpeded by passenger services through the Sydney metropolitan area and linking intermodal terminals.

The majority of containers currently transported by rail are exports from regional areas. In order to increase the rail mode share, more imports need to go on rail, especially those destined for the Sydney region.

Rail Futures Institute is disappointed that the former target of 28% for rail share from/to the port has not been met. In a city environment every truck that can be avoided is a win both for the environment and for road congestion and trauma reduction. Every 1 million TEU transported by rail reduces truck movements at the port by 900 trucks per day. .

Loading on the Sydney metro rail/port shuttles should predominantly focus on imports as rail, in particular from on-dock rail at individual port terminals, should be able to operate as a clearing mechanism from defined container stacks ex ships at that terminal and which are destined for defined parts of Sydney.

On the export side, a critically important service by metro terminals is the storage of empty containers, both for rail transit to regional exporters and delivery to port of any empty containers destined for export. Suitably located exporters in the metropolitan region should be able to deliver to the metro terminals and utilise scheduled rail/port shuttle services for loaded container despatch and connection with known sailings.

Effective operation of rail/port shuttles requires close collaboration between importers, stevedores, metro terminal operators and rail operators. It assumes the rail and metro terminal operators can provide a seamless service including any value-adding at their sites and container storage awaiting delivery to customers. The ability for rail to compete on these short hauls relies on complex coordination and such multiple party collaboration for rail to become cost competitive.

With the relatively recent creation of Moorebank and St Marys terminals, along with enhanced throughput from Yennora, the opportunity would seem to be available for growth in port market share on rail. The long-term goal should be to move 3 million TEUs per year by rail.

Fremantle in Western Australia, is reported as having the highest share of port containers on rail. It is no coincidence that Western Australia has an incentive scheme that passes some of the benefits of reducing truck activity to port back to shippers. A sensible 'incentive' for containers on rail based on community cost savings might be a 'no net cost' way of encouraging the appropriate shipper behaviour for the benefit of the city as a whole. Container to port on rail incentives can be good value as well as good policy. We therefore recommend consideration of a payment scheme, at a level and duration to be determined, to get more containers going in and out of Port Botany onto rail, to meet an assigned target.

NSW has three major rail served ports and there may be value in encouraging rail haulage of specific commodities to the nearest suitable port rather than only Port Botany to reduce the freight rail demand for freight paths in the Newcastle-Botany-Port Kemba area, albeit acknowledging that choice of port is heavily influenced by shipping routes, frequency and lowest overall cost of shipping freight rather than by the land transport considerations.

A relevant example is that of ethanol from Bomaderry to Port Kembla for export. This is on road despite both ends of the haul being located on rail. Suitable incentives might facilitate this going to rail and avoiding a number of otherwise unattractive aspects to do with high volume road activity.

Discussion Question Four: (Road Freight)
Do you have recommendations or issues to note about road freight?
Some questions for consideration in developing your response:

- *What are the most important safety, sustainability and productivity considerations for road corridors?*
- *How can road funding be made more sustainable? Do you have specific comment on road charge*
- *Comparison between existing rail alignment and proposed Wentworth Deviations and funding?*

RFI acknowledges the role of road freight in our society. However, there is a disconnect in the charging regime for the 'road use' component. As trucks grow ever larger and heavier, the charging regime is largely stuck in the indirect fuel excise user fee arrangement which bears little relationship to the actual infrastructure costs associated with road use. Smaller vehicles (cars, light trucks and urban delivery vehicles) are subsidising the long distance heavy vehicles under the current scheme. The current scheme distorts the choice of mode which has the unfortunate effect of distorting the whole issue of community and social benefits – less than desirable environmental and trauma outcomes being notable casualties in this situation. Progressive vehicle electrification will force a change to these arrangements.

As noted on page 41 of the discussion paper, "By 2040, road freight is projected to be 57.1 per cent above 2020 levels in NSW (Figure 3.3). The interstate road task is expected to be 84 per cent above 2020 levels, increasing from 39.1 billion tonne kilometres to 71.9 billion tonne kilometres, potentially impacting road safety, congestion, road funding and investment prioritisation.

RFI suggests that the cost to the state and people of NSW if such an increase were to occur would be very high. On the other hand, freight trains save fuel, reduce road damage, emissions and road crashes. They also reduce residential amenity impacts and other environmental effects. Increased use of rail freight as the freight task grows has significant economic benefits, including reduced supply chain costs.

Road freight imposes appreciable external costs on the wider community that significantly exceed those of rail freight. The New South Wales the Independent Pricing and Regulatory Tribunal IPART) in its 2012 *Review of Access Pricing for the NSW Grain Line Network* gave values for external costs for road and rail freight in both urban and non-urban areas. These included estimates with an allowance for unrecovered road system costs from trucks, accident costs, air pollution, noise, emissions and road congestion, in cents per net tonne kilometre (ntkm), as follows:

- 2.75 cents per ntkm for road haulage in urban areas
- 1.98 cents per ntkm for road haulage in non-urban areas
- 0.43 cents per ntkm for rail haulage in urban areas, and,
- 0.17 cents per ntkm for rail haulage in non-urban areas.

These externality costs, if escalated by CPI, would now be appreciably higher by a factor of around +30%

The significance of the above numbers is that freight moving from a regional location to port will generate external costs (indirect but very real costs) ten times greater if carried by road as compared to haulage by rail.

Discussion Question Five: (Decarbonisation)
Do you have recommendations or issues to note about decarbonisation or changing technology?
A question for consideration in developing your response:
How can freight networks be improved to handle the growing freight task while utilising changing technology and lowering emissions?

In 2022-23, Australian transport accounted for 98 million (m) tonnes of emissions[3]. This is 21% of all Australian emissions. As noted by Minister Catherine King at a Rail Decarbonisation Conference held in September 2023 at Melbourne, "transport is our third largest source of carbon emissions and is on track to be the largest by 2030." The Minister also noted that rail is three times more fuel efficient than road in moving freight. That means it produces one third of the emissions.

Two "additional measures" have been proposed to reduce transport emissions in Australia. These are the National Electric Vehicle Strategy and the recently approved New Vehicle Efficiency Standards. With these, 2030 transport emissions are expected to reduce by 7m tonnes. However, this will be significantly offset by increased emissions from road freight (but not rail) notwithstanding road industry ongoing improvements in productivity and efficiency. By 2030 these are expected to increase by 5m tonnes pa[4]:

	2020	2030
Articulated trucks	12	14
Rigid Trucks	8	10
Light Commercial Vehicles	17	18
Railways (mostly freight)	4	4

In the 10 years to 2030, road freight emissions are expected to increase from 37m to 42m tonnes whilst emissions from railways remain at 4m tonnes. This is unsustainable.
Freight may be either bulk or non-bulk. Freight tasks are measured in tonne-kilometres (tkm). Since the 1970s, Australia's rail and road freight tasks have shown large increases. Although the overall rail freight task has shown strong growth, this is mainly due to bulk freight including iron ore exports (895m tonnes) and coal (338m tonnes) in 2022-23[5]. The road freight task has also shown exceptional growth, mainly due to non-bulk freight (including consumer goods) rising from about 29 billion tkm (btkm) in 1976-77 to 163 btkm in 2021-22.[6]

During this time, the non-bulk rail freight task increased from about 10 btkm to only 34 btkm.
On the basis that rail is three times more energy efficient than road in moving freight, if the emissions from articulated and rigid trucks were (say) to be reduced from 20m tonnes to 18m tonnes (instead of rising to 24m tonnes) by transfer of some road freight to rail, the increase in rail emissions would be 2m tonnes. The net decrease would be 4m tonnes.

[3] Annual Climate Change Statement 2023 (https://www.dcceew.gov.au/climate-change/strategies/annual-climate-change-statement-2023)
[4] https://www.dcceew.gov.au/climate-change/publications/australias-emissions-projections-2023, Table 20
[5] https://www.industry.gov.au/publications/resources-and-energy-quarterly-december-2023
[6] (https://www.bitre.gov.au/publications/2022/australian-infrastructure-and-transport-statistics-yearbook-2022).

It is recognised that road freight will increase its energy efficiency for some freight tasks. This has been addressed in Australia[7] and overseas[8]. However, major reductions in emissions require selected modal shifts of freight from road to rail and for rail freight to improve its own energy efficiency. Securing modal shifts from road to rail (including some freight that used to go by rail and due to highway upgrades and larger trucks[9] now goes by road) will need policy work on relative access pricing for heavy trucks on public roads, and for freight trains on rail tracks.

Discussion Question Six:
Do you have recommendations or issues to note about strategic land use planning and industrial land?
Some questions for consideration in developing your response:

- *How can strategic land use planning better accommodate and plan for urban freight?*
- *Is the value of freight logistics and transport adequately recognised in building supply chain resilience?*
- *Do you have any relevant suggestions about improving and implementing strategic land use plans?*

RFI strongly favours the co-location of intermodal terminal facilities with warehouses and distribution centres on land which is explicitly planned and allocated for that purpose. While the examples of Moorebank and St Marys have taken advantage of land availability and existing or potential rail linkages to those sites, this is unlikely to be possible in other inner or middle suburbs, especially on rail corridors which are primarily utilised for metropolitan passenger services. This underscores the importance of identifying and protecting future sites where such co-location with existing or future rail freight lines appears feasible.

It is unfortunate that previous planning decisions have allowed warehousing and distribution centres to be established at locations where rail access now or in future is impossible, effectively either locking in widescale road transport distribution for the long term or, at least, making the prospect of transhipment of freight to a rail-based facility both challenging and likely uncompetitive. These examples will increasingly be recognised as planning failures which must not be repeated.

A new intermodal terminal funded by the private sector is being established at Somerton in Melbourne's northern suburbs on land which has long been set aside for such a facility. Apart from excellent rail access, it already has an extensive Coles distribution centre on site with another to be constructed for Bunnings. A large Amazon distribution centre is nearby as is Melbourne's Wholesale Fruit and Vegetable Market which in future will have its supply chains efficiently serviced by rail for fresh and refrigerated produce from locations as distant as North Queensland and Western Australia. The Somerton facility will also service a regular rail/port shuttle service to and from the Port of Melbourne. Such examples need to be replicated elsewhere, including in the Sydney region.

It should also be noted that intermodal terminals need not be only for the purpose of handling containerised freight. Most non-bulk road freight is not containerised and uses suitable vehicles and

[7] https://www.climateworkscentre.org/news/decarbonising-short-haul-road-freight-could-halve-australias-freight-emissions

[8] https://www.oecd-ilibrary.org/sites/0c13b23d-en/

[9] The BITRE report (https://www.bitre.gov.au/publications/2022/australian-aggregate-freight-forecasts 2022-update) gives reasons for this increase in road freight including: "Investment in the National Highway System [such as] continued upgrade and duplication of significant parts of the system" and 'Several rounds of incremental reforms to heavy vehicle dimension and mass limits, which resulted in progressively broader network access for larger dimension and higher mass freight vehicles."

handling methods for freight which is palletised or packaged in other ways to facilitate handling and distribution. Rail freight can also handle freight in such ways but requires different facilities and rolling stock for this purpose. A key example of such an operation is provided by rail and truck operator SCT whose terminal buildings in Melbourne, Wodonga, Parkes, Brisbane, Adelaide and Perth have internal rail sidings and loading platforms with fork lifts and similar equipment used to load high capacity enclosed vans with palletised and other forms of unitised freight. Pending completion of Inland Rail, the company uses road transport from Brisbane and Sydney to interchange with rail at Parkes for its Perth-based customers. SCT's operation has proved very successful over more than two decades and has demonstrated rail's potential competitiveness for other forms of non-bulk freight such as foodstuffs and consumer goods.

Discussion Question Seven:
Does the NSW Government provide adequate consideration of freight matters?
Some questions for consideration in developing your response:
• *Is stakeholder feedback incorporated into government policy direction?*
• *Do you have access to contacts within Transport for NSW in relation to freight matters?*
• *What do you consider government should do to improve your access to decision makers and enable you to influence reforms being considered?*
• *Are there structural changes required within the government to integrate and optimise freight outcomes?*

The structural arrangements inside TfNSW are not known to RFI but it is assumed that, as with most other states, the former road and rail functions are still managed as largely separate entities within the overall department. Much of the foregoing has been about getting good transport policy that is equitable across modes and provides the best overall outcome.

In relation to rail and rail freight in particular, it is unsurprising that many Departmental staff have scant knowledge of rail and its characteristics and potential capabilities. Some of this stems from the rail industry's reputational historical baggage, of which there is plenty, but not all is factual. Part of the solution lies in ensuring that relevant staff are exposed to and educated about the realities of rail, its challenges and opportunities.

In this context, it is contended that the land transport function within the Department needs to be consolidated into a single entity to allow decision making to be based on knowledge of the best potential outcomes from a multi-modal approach rather than a focus on individual modes. Decisions in regard to ever larger road trucks, rail freight curfews, cost recovery of infrastructure costs and similar need to be driven from the same policy and functional base if optimal outcomes are to be achieved. If a largely unified approach is taken within the Department, then not only will the best outcome be more readily achievable but modal choice in the freight market place is more likely to be supportive of rail and intermodal solutions.

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