Heavy vehicle freight transport outlook: Round Table Report

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Contents

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EXECUTIVE SUMMARY

ARRB's stated purpose is 'Collaborating with the road industry to turn knowledge into practice', and its mission includes the intention to 'cause the exchange of information'.

Consistent with this purpose and mission, ARRB convened an Industry Round Table in Melbourne on 11 December 2009 with the aim of 'clarifying among the participating industry stakeholders the issues involved and the actions needed to foster an increasing uptake of innovative, more productive heavy road freight transport vehicles and practices in Australia.' The Round Table, intended by ARRB to be a model for similar 'information exchange' events in future, attracted 27 industry and government participants, including external facilitators.

The Round Table began by considering the challenge stated above from four different perspectives:

- state, territory and federal governments – as regulators, road agencies and/or policy-makers
- freight customers – users of freight and logistics services
- the freight transport industry – as suppliers of freight and logistics services by any mode
- local government – as local road agencies and as representatives of community interests.

The discussion identified a range of factors and various realistic options for further action, offering potentially significant benefits. These options primarily lie in the following fields:

- policy development
- regulatory enhancements
- capacity building
- technology and operational practices
- advocacy and communication.

The group-based deliberations led to production of a 'long-list' of issues. Thereafter, participants were invited to each identify three issues from the long-list that they regarded as being most important in addressing the current circumstances. On this basis, the following emerged as the key issues overall:

- Resources available to local government for processing PBS access (and other) HV related requests are not sufficient for the task at hand.
- More champions are required to push industry reform (knowledge and advocacy).
- Engaging 'green' opportunities were seen as a critical path to community acceptance of higher productivity freight vehicle operations.
- Greater national consistency was seen as essential for achieving improved processes, more efficient operations and appropriate network access.
- Engagement of all stakeholders, including the community at large is seen as necessary in order to deliver a framework that enables the efficient movement of freight.
- More coordinated information and education schemes are required to promote the local/community benefits of more efficient freight operations.
- Uncertainty of outcomes needs to be reduced, as there is little incentive for operators to invest in the PBS process given the high levels of uncertainty regarding usage and access.

While Round Table participants acknowledged that the quest for greater productivity in road transport freight operations may be a never-ending journey, there was a firm consensus that various current factors can be readily addressed now by the relevant industry and government quarters. These were summarised as a series of propositions, linking the overall problem (slow implementation of PBS-based higher-productivity vehicles) and the direction of potential solution strategies, as follows.

- Technical excellence in HV innovation is necessary, but not sufficient to achieve the available efficiency benefits at the current time.
- There is a need to achieve an agreed national strategic framework for HV road transport innovation through a mechanism of consultation and partnership.
- Co-ordinated public communications are needed on the theme that 'Big trucks can be good for you'.
- Proactive industry and community champions for HV innovation benefits should be developed.
- Relationships both with and among stakeholder and community groups need improvement.
- Risks (financial, process, time etc.) with rewards (efficiency improvements) should be aligned.
- Decision-makers should be more effectively supported with adequate resources.
- The approvals process should be refined for greater transparency, clarity, accountability.
- Market-based HV initiatives / solutions within a streamlined process framework need encouragement.

While the ARRB Research Report (ARR) will facilitate wider public consideration of these matters, action on likely 'solution' options needs to be led by appropriate elements of both government and industry.

1 Introduction

The economic significance of freight transport is widely appreciated. Australia, with its large land area, relative geographic isolation, and highly urbanised population, spends approximately twice as much per dollar of GDP on freight as many other OECD countries[1]. Freight efficiency is therefore a key economic imperative.

Australia's freight productivity has improved over the years, most recently as a result of reforms introduced through the National Transport Commission (NTC) which have fostered technological innovation by the freight industry. However, there is a concern that productivity has plateaued, particularly in the road freight sector, and that the potential economic, safety and environmental benefits of reform are not being achieved. For example, the NTC has reported that in 2008/09, only 53 PBS applications (see Section 2 below) were made across Australia, compared with some 15 thousand new trucks in total.

ARRB Group convened a 'Round Table' in Melbourne on 11 December 2009. The purpose of the Round Table was 'to clarify among the participating industry stakeholders the issues involved and the actions needed to foster an increasing uptake of innovative, more productive heavy road freight transport vehicles and practices in Australia.' A list of participants is attached.

ARRB Group is Australia's leading provider of value-added research, consulting and technology addressing transport problems. Its stated purpose is *'Collaborating with the road industry to turn knowledge into practice',* and its mission includes the intention to 'cause the exchange of information'. The Round Table, which was something of a prototype for possible future information exchanges of a similar nature, is therefore consistent with ARRB's purpose and advances its mission.

This Research Report summarises (without attribution) the key findings and conclusions of the discussion at the Round Table. It is intended to be a source document to assist the further development of policy and practices to be used by those with a responsibility for progressing productivity improvements in Australia's road freight transport sector.

[1] Boulhol, H, de Serres, A & Molnar, M 2008, 'The contribution of economic geography to GDP per capita', *OECD Journal: Economic Studies,* no. 1, pp. 284-346, viewed 13 April 2010, <http://www.oecd.org/dataoecd/59/37/42506177.pdf>

2 Context

Over time, Australia's road freight vehicle fleet has become safer and more efficient, with less impact on the environment. This has been a 'win-win' for the national economy, the road freight industry and its customers, and the broader community. For example:

- the trend to larger payloads has meant that fewer vehicles are required to move a given freight task
- costs of freight transport have reduced and because the industry is highly competitive these savings are passed on to the consumer or assist in 'making' Australia's exports more competitive on world markets
- truck crash rates have fallen
- the workplace has become safer
- the environmental impacts (e.g. emissions, noise) of trucks have been reduced.

Until recently, many of these reforms have been facilitated by progressive changes to prescribed standards – increased gross vehicle mass, increased vehicle dimensions (especially vehicle length, including the introduction of combination vehicles), increased permitted axle loads, tighter safety and environmental standards, etc. Many of these reforms have been associated with, or made possible by, upgrades in road infrastructure such as stronger pavements, stronger bridges and improved road geometry.

However, in October 2007 an alternative regulatory system was introduced across Australia as a result of a decision of COAG (Council of Australian Governments) on the recommendation of the ATC (Australian Transport Council). This system, known as Performance Based Standards (PBS) has been described by NTC (www.ntc.gov.au, 4 June 2009) as:

> a fresh alternative approach to heavy vehicle regulation. It focuses on how well the vehicle behaves on the road, rather than how big and heavy it is, through a set of safety, road wear and bridge loading standards. In other words, PBS governs what a vehicle can do, not what it should look like. PBS sets minimum vehicle 'performance' standards to ensure that trucks are stable on the road and can turn and stop safely without damaging roads and bridges.

PBS was seen as a tool to unlock productivity in an otherwise inflexible prescriptive regulatory regime. It would allow innovative, higher productivity vehicles to use the road without compromising safety or posing a risk to road assets.

Obtaining approval to operate a PBS vehicle involves a detailed process of application, design, and reference to the relevant road agency (refer NTC website). However, the NTC is currently considering further reform of the PBS regime with the aim of making the approval process simpler, quicker and less costly. A draft Regulatory Impact Statement (RIS) is being prepared by NTC for consideration by ATC in 2010; this will involve consultation with relevant stakeholders (www.ntc.gov.au, 22 July 2009).

The ATC has recently accepted NTC's recommendations for a National Heavy Vehicle Accreditation Scheme (NHVAS) to be administered by 'the COAG-endorsed single heavy vehicle regulator from 2011' (www.ntc.gov.au, 14 October 2009). The national regulator would have responsibility for national heavy vehicle regulation and national heavy vehicle driver licensing (www.ntc.gov.au September 2009). It is envisaged that the national regulator will be a form of 'one stop shop' for PBS applications, and therefore that the national regulator would seek to include access approval in its response to applications; this would involve negotiation with jurisdictions,

since they retain the right and responsibility to determine access. The national regulator proposal will be considered by COAG in 2010 (COAG communiqué, December 2009).

The application of these principles is however not uniform across Australia, with less application in remote areas. In particular the application of PBS is less applicable in Western Australia. PBS vehicles are running in that State because long-standing prescriptive vehicle combinations have long allowed significantly higher payloads and productivity than any envisaged through PBS, and are readily available to all operators. As a consequence, many of the related institutional issues are less relevant; for example, the approvals process is clear (Main Roads Western Australia (MRWA) is the regulator), and access issues and related community concerns are not significant.

Elsewhere, it can be seen that the current scenario is of an industry and regulatory regime in a state of flux. The PBS regime has been in place for a couple of years, but few operators or equipment manufacturers have taken advantage of it. The road agencies are concerned about preservation of their road and bridge assets. There is political support and commitment at the highest level for the need for reforms to unlock continuous productivity improvements, and this is being reflected in commitments to a national regulatory regime. Local government, which is often responsible for the 'last kilometre' access to freight generating sites, clearly has a role to play also. And the general community, which may be concerned about bigger trucks but does not see or accept the benefits that they bring, will insist on having a say.

Thus, the December 2009 Round Table convened by ARRB Group is timely, and potentially beneficial in exposing the issues and helping to point the way forward.

3 Key Issues

The starting point for the Round Table was a set of generally-agreed perceptions, based on informal discussions with key players, that there are a number of key issues to be resolved if higher productivity vehicles are to play a larger role in Australia's road freight task. These may be summarised under five heads as follows:

- Access
- Vehicles
- Approval process
- Community concerns
- Commerciality

3.1 Access Issues

It is axiomatic that it is not enough just to have larger, more productive road freight vehicles; there must also be a compatible road network upon which they run.

While much effort has been into the development of a nationally-consistent 'PBS network', it remains a work in progress. All three levels of government are involved, including the proposed national heavy vehicle regulator (see Section 2). The impact of PBS configurations on pavements and bridges is uncertain.

Where a network exists, or where a PBS vehicle has performance characteristics the same as an 'as of right' vehicle, the relevant road agency is still required to issue a permit. Currently, there is a degree of uncertainty within the industry about whether such a permit would be issued if it was applied for, and in some cases whether those responsible for issuing such permits have accepted the high-level political and/or organisational commitment to the principles of PBS.

Local government has a key role to play; some 80% of Australia's road network is managed by local government, including in many cases the 'first and last kilometre' of potential high-productivity vehicle trips. Local government may not have the resources or skills to assess PBS applications, and may be on the receiving end of public resistance to the greater use of larger trucks. While a state 'takeover' of access roads may be appropriate and necessary in some circumstances, this cannot be applied universally, so local government must continue to be a player in this space.

Access can have a time dimension; curfews may be applied governing the times of day which PBS (and maybe other) vehicles may use the approved network. This may detract from the potential efficiency gains, and may have the perverse effect of increasing truck usage of arterial roads during peak hours in order that they can access local roads during non-curfew hours. Often the reason for a curfew is vehicle noise impacting nearby residential neighbourhoods, so addressing the issue may involve attention to the vehicle, the site, or the receiving facility.

3.2 Vehicle Issues

Arguably, resolution of technical issues related to the vehicle has run ahead of the other key issues discussed in this section. This is not to say that there are no technical issues awaiting resolution, but rather that the vehicle equipment industry knows how to design PBS vehicles and the road freight industry knows how to use them, so the current challenge is probably more about how to resolve the issues standing in the way of their greater adoption.

Similarly, there are other vehicle issues being progressed elsewhere, notably through the ADR (Australian Design Rules) process, which will affect non-PBS and PBS vehicles alike. These principally relate to the safety and environmental performance of heavy vehicles. For example, adoption of EURO 4 and 5 regulations for diesel engine performance will require the fitting of diesel particulate filters. These filters take space, with potential implications for fuel or load capacity, with the consequent potential to offset some of the productivity gains which PBS vehicles have to offer.

Currently, almost all PBS vehicles are custom-designed for a particular operator or operation. There is likelihood that in time, vehicle/equipment manufacturers will take the lead in designing a configuration for a particular application, so that they can market it to operators within that application. This should also produce economies of scale in the development cost, i.e. the cost of design, assessment, certification etc. would be spread over a large number of vehicles, rather than just a handful.

3.3 Approval Process

The current approval process is perceived by many in the industry to be complex and poorly understood. Several agencies, at all levels of government, are involved, and this has led to confusion and lack of clarity concerning roles and responsibilities.

Essentially, but not surprisingly, those charged with responsibility for issuing permits or access approvals may be risk-averse in assessing applications for PBS vehicles. Any upside benefit is general ('increased national freight productivity') but the downside can be very real (e.g. deterioration of road or bridge assets, or complaints from an aggrieved public).

The ATC and NTC have implicitly recognised this with their commitment to the New Heavy Vehicle Accreditation Scheme (NHVAS) and single national heavy vehicle regulator from 2011 (see Section 2 above). As noted, this reform aims to get greater consistency and transparency in the process of gaining approval for PBS vehicles and potentially for the routes which they can use.

3.4 Community Concerns

Since any decision to issue a permit for a PBS vehicle may result in larger trucks using the road network, the public has a legitimate interest in the outcome.

While there is no single 'community', nevertheless in some instances there may be an antipathy to trucks and perhaps big trucks in particular. Residents who see trucks in 'their' street may resent the intrusion, while other road users who must share the road with large vehicles may feel threatened by the experience.

Whether these views are rational or realistic is hardly the point. While sections of the public hold these views, decision-makers will inevitably take them into account. Conversely, it may be that decision-makers can exaggerate the negative community perception, and give them undue weight.

In any case, public perception and managing community acceptance of larger vehicles is an important issue for PBS implementation.

3.5 Commerciality

The freight industry will only introduce PBS vehicles if it is profitable to do so. The costs of developing a PBS vehicle or fleet are considerable – not just the capital costs of equipment which in many instances has to be purpose-built, but also the costs of the approval process and potential inefficiencies (e.g. through loss of operational flexibility in terms of equipment usage, route/customer restrictions, or time constraints (curfews) on operation). To offset these costs, there must be a high and realistic prospect of bottom-line improvement.

At present, while there is anecdotal evidence to suggest that there are commercial benefits to be gained by the freight industry and its customers, few operators have decided to participate. Until there is a critical mass of participants who, on the one hand can demonstrate that the benefits are real and on the other hand start to take customers away from those who do not participate, the take-up rate is likely to be slow.

However, if the experience with prior reforms is any guide (e.g. B-doubles in the 1980s), the take-up rate could be quite rapid once the industry accepts that the commercial benefits are real and once procedural hurdles are reduced.

4 Impediments to the Take-Up of High-Productivity Freight Vehicles

During the ARRB Round Table, participants were invited to consider the question 'why is the take-up rate for high-productivity freight vehicles so slow?' The meeting considered this question from four different perspectives, as follows:

- state, territory and commonwealth governments – as regulators, road agencies, and policy-makers
- freight customers – users of freight and logistics services
- the freight transport industry – as suppliers of freight and logistics services by any mode
- local government – as local road agencies, and representatives of local residential and business communities.

This section summarises the findings and discussions around the above question. It should be noted that in some cases the points were expressed more as 'solutions' than impediments, but for consistency they are reported here as the latter, i.e. as points in answer to the question 'why is the take-up rate for high-productivity freight vehicles so slow?'

4.1 Government Perspective

The discussion on the question from the perspective of state, territory and Commonwealth governments identified the following impediments to the take-up of PBS or high-productivity freight vehicles:

- PBS will go from 'boutique' to 'mainstream' when the responsibility for innovation shifts from being driven by operators to being driven by equipment manufacturers, i.e. when they produce and market PBS-compatible products which a user could purchase 'off the shelf' and which would become the norm for that application.
- There is a lack of champions (in both industry and government) to advocate the benefits of PBS vehicles, and enter into debate on the issues.
- The policy context is not clear – this is necessary to ensure that the right PBS routes are developed in the right places.
- Regulators have to protect their organisation's interests while facilitating and the furthering an applicant's interest.
- There is technical opposition to aspects of PBS.
- There is a lack of national consistency – both generally and last kilometre.
- Regulators may not be well-informed on such aspects as access, networks, costs and benefits – they need appropriate resources in terms of people and skills to assess applications.
- The onus is on the applicant to ensure that the regulator has all the information required to make a decision, but this does not always occur.
- There are doubts about the accuracy of information on PBS vehicle performance and their impacts on road and bridge assets (especially mature assets) – more research is needed.
- There is poor industry behaviour – the '1% of mavericks' in the industry make it difficult for regulators to be seen to be supportive.

- Roads are governments' biggest asset – exposing them to the risk of accelerated damage is a 'big ask'.
- There is no incentive for institutional change within agencies.
- Technical people within road agencies do not always agree with, or understand, what their agency has committed to at a policy or political level.
- Entry costs (design, assessment, certification, etc.) are high when only one or two vehicles are involved – need to get economies of scale by seeking approval for a fleet or for specific vehicles marketed for specific applications.

4.2 Freight Customers' Perspective

The discussion on the question from the perspective of the customers or consumers of freight and logistics services identified the following impediments to the take-up of PBS or high-productivity freight vehicles:

- The PBS-approved network is inadequate - customers are only interested in using PBS vehicles if they can deliver when and where required: other logistics options can be more attractive.
- There has been insufficient engagement of local government in the development of the PBS concept – PBS was considered to be technical, and stakeholder involvement was overlooked.
- There has been a failure of PBS proponents to communicate to freight bureaucrats that PBS is an important issue.
- There are insufficient sites for breaking up combination vehicles – if a PBS vehicle is used for line haul, it is often appropriate to break up the combination for local delivery.
- Loading docks are not always suitable for the PBS vehicle – investment is required, which impacts the business case.
- The last kilometre is often restricted by curfews, and local roads may not have suitable geometry for PBS vehicles (grades, roundabouts, etc.).
- There are inappropriate standards of housing construction on freight routes (e.g. double-glazing for noise reduction).
- There is a lack of clarity about who is responsible and accountable for PBS approvals (vehicles and routes) – 'too many cooks in the kitchen'.
- The lack of certainty about the success of an application for a PBS vehicle (and the complexity of the process) means that the high cost of preparing an application is more difficult to justify.
- Local government is ill-equipped to assess the merits of a PBS application – not surprisingly the response is often to reject it.
- Local government fears that if the PBS causes the road to deteriorate, they will not be compensated - the higher fees paid by PBS vehicles do not automatically flow to the road agency which bears the cost.
- PBS involves specialist equipment, and this reduces operational flexibility which detracts from the business case.
- The road freight industry does not lobby hard enough for higher productivity vehicles which would benefit the customers – need for more positive, proactive advocacy.

4.3 Freight Transport Industry Perspective

The discussion on the question from the perspective of the freight industry (the providers of freight and logistics services) identified the following impediments to the take-up of PBS or high-productivity freight vehicles:

- New developments are often not designed to accommodate larger vehicles – e.g. cannot get even a B-double around some roundabouts where these are on the route to a major generator such as a shopping centre.
- Problems in dealing with State bureaucracies which have responsibility for issuing permits, e.g. (i) unsure who to deal with, (ii) inconsistent or conflicting information from different people within the same organisation, (iii) bureaucrats are risk-averse and tend to play it safe and say 'no', (iv) inconsistent decisions between States.
- There is a need for clearer decision-making processes, to ensure that (i) the regulator takes appropriate factors into account when assessing PBS applications, (ii) the decisions are made in consistent and transparent ways, and (iii) regulators are accountable for their decisions.
- There is little incentive for the regulator: risk and reward are not aligned.
- The industry accrues the benefit, not the regulator, but the regulator has to take a risk when approving a PBS application so bureaucracies create hurdles to avoid risk to themselves.
- Regulators are not held to account for the economic consequences of their decisions.
- Approvals are granted at too low a level within agencies, by people who do not have a grasp of the bigger picture (e.g. economic, safety, environmental benefits of PBS).
- The public opposes PBS vehicles because it perceives that the benefits are received by the freight industry, but in fact they flow to customers and ultimately to the whole community.
- PBS is a technical solution which is not well-understood by the public, regulators, or local government – proponents have failed to communicate what PBS is, or the benefits of PBS.
- Lack of national consistency is a problem – hopefully the proposed national regulator will fix this, but there will need to be a contractual agreement between the regulator and road agencies to ensure that the network is suitable.

4.4 Local Government Perspective

The discussion on the question from the perspective of local government identified the following impediments to the take-up of PBS or high-productivity freight vehicles:

- Applicants for PBS access need to be more aware of and sensitive to the issues and criteria that local government uses when assessing their application – e.g. local community concerns, obligations to enforce regulations, etc.
- There is a lack of certainty and accountability in the process – local government is just one player whose position may be affected by the decisions of others.
- Local government often lacks resources (people, skills) to assess applications for PBS access on their technical merits – and so tend to err on the conservative side.
- There is a lack of overall high-level accountability for delivery of PBS outcomes – responsibility for delivery needs to be articulated and agreed to.
- The community does not like big trucks – whether right or wrong, that is the perception that local government has to deal with when assessing PBS applications.
- The freight industry is poor at educating or influencing the community – not its core task.

- There is a lack of effective processes or opportunities to educate the community that PBS is not about enriching the trucking industry but about community benefits and well-being (e.g. safety, environment, cost of consumer goods).
- The freight industry (and its customers) does not have common ground with local government in promulgating a public message – so the public hears different stories.
- The freight industry is seen as self-regulated, and regulators are risk averse, so there is an impasse.
- The freight industry does not recognise that it is a stakeholder in local government decision-making processes – need to talk not just to the engineers, but also the planners, environmental officers, social planners, CEOs, mayors, councillors.
- The freight industry needs to get more involved with local government – clarify what it needs in terms of access and why, take advantage of appeals mechanisms, build relationships, and partner with other organisations that the community trusts (e.g. motoring clubs).
- The process for PBS applications and approvals does not include provision for garnering public/community support.
- Applicants for PBS access do not use the appeal mechanisms available to them when local government rejects their application.
- Arguments based on freight efficiency or productivity don't find acceptance at the local level – people are concerned about personal impacts of larger trucks in their community, and either don't believe the argument that they will receive benefits from productivity gains, or that any such gains are too remote to be meaningful.
- The freight industry has a poor public image (a few bad truck drivers spoil it for everyone) so there is little community sympathy or support.
- Local road funding is not guaranteed, so councils feel exposed to a financial risk if they approve PBS vehicles which place extra stress on local roads.

4.5 Key issues Identified by Round Table Participants

At the Round Table, the above four perspectives were considered by four groups, and as each group reported, their key words or issues were listed on a whiteboard. At the conclusion of this exercise, each participant was given three 'votes' to place against what they considered to be the three key issues. As guidance, votes were asked to be allocated to issues that were both important and achievable; issues considered important but difficult, or achievable but unimportant, were to be discarded.

On this basis, the following emerged as the key issues overall.

- Resources for processing (local government)
- More 'champions' (knowledge and advocacy)
- Seek 'green' opportunities
- Greater national consistency
- Engage all stakeholders
- More coordinated information
- Reduce uncertainty of outcomes
- Community resistance
- Communicate benefits from overall freight task savings

While exercises of this nature have obvious limitations, nevertheless these results reveal a deep-seated frustration – frustration that a worthwhile reform is being held up by a series of roadblocks, and that action is required to either:

- remove the roadblock (provide more resources, seek national consistency, provide better information (for decision-makers), reduce uncertainty (in the process)), or
- convince those who are responsible for the roadblock of the benefits of reform (champions to advocate the cause, promote green opportunity from use of PBS vehicles, engage stakeholders, overcome community resistance, and have the public recognise the benefits).

Interestingly, while there is a lot of finger-pointing implicit in the above ('it's **your** fault, you need to do something about it!'), there is also a degree of acceptance that the proponents of high productivity vehicles also have a responsibility for promoting progress, even if that is largely to do with advocacy, provision of convincing information, and development of better relationships. This responsibility lies with both public and private sector interests.

5 Propositions

In assessing the results of the deliberations at the Round Table, there is inevitably symmetry between the articulation of a problem on the one hand, and its solution on the other. For example, 'lack of a champion' readily translates to 'need for a champion'. Moreover, much of the discussion during the Round Table was in the form of proposals for change or improvement, although the above discussion has been cast in terms of answers to the question of why the take-up rate has been slow.

Therefore, the conclusions of the Round Table are most readily summarised as a series of propositions, which contain elements of both the problem (the apparently slow implementation rate for PBS and other high productivity vehicles) and potential solution strategies. Ten such propositions are advanced, as follows:

- Technical excellence is necessary, but not sufficient
- Articulate an agreed national strategic framework
- 'Big trucks can be good for you'
- Find and use champions
- Nurture and manage relationships
- Align risks with rewards
- Support decision-makers with good resources
- Refine the approval process for greater transparency, clarity, accountability
- Commerciality – allow the market to work
- A never-ending journey.

These are developed further below:

5.1 Technical Excellence is Necessary, but not Sufficient

After many years of high-quality research and dedicated commitment by elements within the road freight industry, vehicle/equipment designers know how to design high-productivity vehicles which will meet accepted criteria related to such technical aspects as pavement loading, bridge loading, braking, stability, manoeuvrability, etc. In short, designers know how to design vehicles for Australian roads.

However, while necessary, this has proved to be an insufficient prerequisite for the widespread acceptance of these vehicles. Indeed, the immediate challenges are mostly not so much related to technical aspects of the vehicle, but have to do with management of expectations and community concerns (see Section 5.2 below).

Nevertheless, the acceptance process by which good vehicle design is progressed to having the vehicle on the road could be smoother. Better liaison between proposers, regulators, assessors and certifiers with the aim of 'no surprises' could assist in removing some of the uncertainty and frustrations evident in the current process.

None of this means that all of the technical issues have been resolved. Ongoing research and development will continue to occur, but it would be helpful to attempt to ensure that other stakeholders (especially regulators and local government) are included in this research framework.

Given that equipment manufacturers have the skills and experience to design PBS vehicles, they have the opportunity to develop and market products for specific applications. Such a move from 'boutique' to 'mainstream' manufacture would produce economies of scale in terms of reducing the unit cost of the design/assessment/certification process. The vehicle could quickly become the 'norm' for that application, with customers keen to purchase an off-the-shelf product.

5.2 Articulate an Agreed National Strategic Framework

Notwithstanding recent progress at the inter-governmental level via ATC and the responsibilities allocated to NTC, it was considered by many at the Round Table that there is still a need for an agreed national vision for freight transport generally, and the use of higher productivity vehicles particularly. Development and articulation of such a vision would require greater participation and sign-on by all levels of government, the freight and logistics industry, and freight consumers/users.

The vision would be based on an acknowledgement of the vital national economic significance of freight, and recognise that the vision is not so much about technical solutions (such as PBS) but go to the core of the question about what sort of economic and social future Australia aspires to and the role of the freight transport sector in that.

It would comprise such elements as agreed outcomes, allocation of responsibilities, and commitment to participation and action within agreed timelines. Clear processes, with responsibilities and accountabilities for action, would follow, and would ensure national consistency.

The freight industry and its customers operate nationally and want a nationally-consistent outcome in terms of both technical aspects of PBS and network access, including the last kilometre. While the proposed national regulator (see Section 2 above) is a welcome development, the industry expects that this proposal should lead to improved processes, national consistency and oversight of network access.

5.3 'Big Trucks Can Be Good For You'

This proposition includes an acknowledgement that many in the community do not like big trucks, but it also carries with it the implication that this perception can be changed, and that the freight sector (government, industry and users) has a responsibility to attempt to forge that change.

This would involve a proactive approach, emphasising both the importance of the road freight sector and the ways in which the community benefits from its activities. The message would be that trucks and the products that they deliver are essential contributors to a vibrant, modern, consumer-oriented lifestyle, and are a vital contributor to Australia's international competitiveness and thus to jobs.

One significant perception that needs to be countered is that the benefits of bigger trucks such as PBS vehicles accrue solely to the truck operator. In reality, in a competitive environment, reduced costs of freight ultimately flow to the consumer. However, the challenge is to convince the public that these benefits are meaningful when the disbenefits (noise, intrusion, feeling threatened by the presence of large vehicles on the road, etc.) are real and immediate.

Being proactive also means promoting the benefits, including the green benefits, which potentially flow from the use of more productive vehicles. Larger payloads mean that a smaller number of vehicles is required for a given freight task, with consequent improvements in congestion,

emissions, greenhouse gases, and energy security. Similarly, the proven safety benefits of PBS vehicles need to be more widely promoted.

5.4 Find and Use Champions

This proposition follows from the previous one – if the freight sector (both public and private) accepts the need to better educate the public, then a means of doing so must be found. The use of 'champions' – people or organisations with credibility which the public will listen to and trust – can be very beneficial.

The freight industry is not necessarily good at this task – it is not a core competency, so champions from outside the industry as well as within will be needed. On the other hand, the industry possesses much of the knowledge and information which would form part of a communication message so the industry must be involved. It can also be involved in this advocacy task directly in certain forums, such as technical conferences.

Different champions or advocates would be needed for different audiences. Public forums, such as interacting with the community either directly or indirectly (e.g. via the media) require a different skill set, and maybe a different message, from other forums such as communication with and within governments.

All stakeholders need information, including regulators, local government and policy-makers. There is therefore a role for knowledge dissemination and deliberate efforts to convert research into action. Local government, for example, must have access to reliable and timely information on technical issues if it is to take informed decisions, especially in the face of what may be emotional community resistance. Technical champions, who are well-informed, armed with relevant facts, and who have credibility within professional circles are needed as well as public champions.

Governments also have a responsibility to advocate for freight productivity gains. ATC and COAG have committed to reform, a key part of which is to take the public with them on this reform path.

The forthcoming Regulatory Impact Statement (RIS) related to simplification of the approval process (see Section 2 above) will involve public and stakeholder consultation, and should be seen as part of the advocacy process. The NTC is therefore a key champion, particularly within relevant government agencies.

5.5 Nurture and Manage Relationships

The industry and PBS proponents have a responsibility to be proactive in engaging with the community and key stakeholders, and using these relationships to develop effective two-way communication and advocacy channels.

There are many interest groups, each with a particular but valid perception of the issues. These include government, regulators, road agencies, local government, the freight and logistics industry, freight customers/users, representatives of other road or freight sectors (such as other freight modes and other road users), environmental groups, unions, the media, and of course the general public.

Relationships with these disparate but relevant groups need to be managed, with the aim of educating and influencing them on the one hand, but listening to their concerns on the other. The industry, and proponents of PBS vehicles in particular, needs to articulate what they want to achieve from such engagements, and be prepared to show why these objectives are worthwhile and achievable. They should use arguments and language that the other stakeholders will understand and accept, and not rely solely on technical justification.

5.6 Align Risks with Rewards

A fundamental driver of change is the prospect of reward. This usually involves taking risks, but if both risks and rewards are faced by the same person or organisation, sensible tradeoffs can be sought and well-considered decisions made.

However, the Round Table identified that one of the key impediments to the wider use of more productive freight vehicles is that the risks and rewards are not aligned, so there is often no incentive for reform. For example:

- A freight operator may gain a competitive advantage by using PBS vehicles, but faces the risk that rules and regulations may change leaving them with an 'orphan' vehicle.
- Road agencies face the prospect of a more rapid deterioration of assets, but no certainty that the funds will flow to them to allow commensurate enhancements; although the modelling may show that the fees paid by operators for use of PBS vehicles equal or exceed the costs of asset wear, road funding remains at the discretion of state and territory governments so the funding does to automatically flow.
- Similarly, road authorities cannot be certain of the 'redundant' capacity of their asset so cannot be certain of the costs they will face if PBS vehicle use is allowed; if their assumptions on asset wear are wrong, they will have a problem.
- Local government takes the above risks for local roads, but the problem is exacerbated even further by the concern that their specific road funding from state, territory or Commonwealth sources is not guaranteed, whereas the costs would be ongoing.
- Regulators as such receive no reward for a decision to grant approval for PBS vehicles, yet may face a series of potential backlashes from political and community sources if they permit larger trucks to use a given road.
- Governments have shown that they are supportive of the concept of more productive vehicles, but face the risk that PBS does not deliver on its expectations.
- The community faces a misalignment of risk and reward in that the benefits from productivity gains are widely distributed ('half a cent on a packet of weeties'), but the pain of this gain can be highly concentrated, e.g. in the form of perceived loss of residential amenity to those living near PBS routes.
- This community misalignment gets reflected in political tension in that while government knows that all of those 'half cents' add up, the gainers will not appreciate that and thank government for it, but the losers may feel it and may want to take it out on the government that allowed it to happen.

Other examples could be quoted, but it can be seen that a major challenge is to attempt to provide incentive for reform by ensuring that there are potential rewards available to those who accept the risks associated with the wider use of PBS vehicles. This is particularly challenging within the public sector (road agencies, regulators, local government) where they are, at best, indirect beneficiaries of the benefits of reform but are exposed to very specific and identifiable negative consequences. Regulators in particular are almost literally 'on a hiding to nothing', and it can hardly be surprising if they have a tendency to be over-cautious if there is no higher-level political or institutional pressure or incentive to do otherwise.

One way forward may be for the higher levels of government to guarantee compensation for at least the financial risks that are undertaken by road agencies and regulators. This could be justified on the basis that the benefits of higher freight productivity are revealed in national economic output, and thus the incentive for reform lies at the higher levels of government.

However it may ultimately be resolved, it is important to understand that this misalignment of risk and reward lies at the heart of the problem, and that reform will likely be slow unless ways are found to provide some incentives and greater certainty to those who must bear the risks.

5.7 Support Decision-makers with Good Resources

Management in both the public and private sector need improved resources and information for decision-making.

Within the public sector, including local government, what is needed is a framework which would enable a quick and efficient response to an application for a PBS permit. This would involve access to better information (e.g. about both technical performance and community acceptance) and enhanced skills and expertise. There is a responsibility on the applicant to ensure that the regulator has all of the information that it needs to assess the application, but conversely the regulator has a responsibility to ensure that the applicant knows what is required for their proposal to be considered.

Staff skilling is a particular challenge, especially for local government where applications for PBS vehicles may be a rare and novel event.

Within industry, there would necessarily be a financial incentive to having a PBS application approved, so it can be assumed that the applicant would have the appropriate skills and information to develop a PBS proposal, or have access to consultant resources that could do that with them. However, because so few PBS applications are being made, it may be that there is not yet a critical mass of expertise and information in the industry to facilitate such investment decisions.

Thus, one suggestion made at the Round Table is that applicants could have access to a quick calculator, perhaps web-based, to enable an operator to determine whether an intended PBS configuration was likely to be acceptable, prior to going to the considerable expense of involving an approved assessor or certifier. Development of such a resource could well be a joint activity between the industry and the regulator since it is to their mutual advantage to encourage better applications.

5.8 Refine the Approval Process for Greater Transparency, Clarity, Accountability

In the light of much of the above, it is hardly surprising to conclude that the processes for assessing and approving PBS vehicles represent a ‘work in progress’. While PBS is still at a relatively early stage, it is clear that greater transparency, clarity and accountability in these processes is expected by Round Table participants.

The perceived deficiencies in the current process have been documented in Section 4 above – lack of accountability for regulatory decisions, fragmented administration, too many players in the approval process, lack of clarity in the way the process is supposed to work, lack of transparency in the reasons for decisions, etc. This purportedly results in excessive costs to applicants, and lack of confidence in the rigour of the process or consistency in the outcomes, with the result that the approval process itself was seen by many at the Round Table as a contributor to the slow take-up rate of PBS and other higher productivity vehicles.

However, government is clearly a key player in the whole process, particularly as the PBS philosophy revolves around the concept of partnerships in delivering outcomes based on performance rather than prescriptive rules. Also, while the industry may complain about the lengthy list of factors that need to be considered in the approval process, they are there for a reason. So essentially what may be required is a ‘one stop shop’ for the assessment of PBS applications,

using a tripartite (road agency, local government, regulator) model covering technical, operational, and access issues in one seamless approval process.

The proposed national regulator (see Section 2 above) goes part-way towards this end. It is expected that this will have many of the characteristics of such a 'one stop shop', with regulatory oversight of the vehicle and the driver and a 'middleman' role in negotiating access on behalf of an applicant.

5.9 Commerciality – Allow the Market to Work

PBS is based on a permissive principle – an operator is permitted to use a high-productivity subject to certain approval criteria. Operators are not obliged to use PBS vehicles, so if the take-up rate has been slow, the question is whether this is due just to the regulatory hurdles discussed above, or whether it is because PBS operation is rarely commercially viable.

In other words, is the benefit from increased payload capacity implicit in the PBS concept outweighed by other commercial costs, such as the capital cost of the equipment, the loss of operational flexibility, the restricted markets/customers that could be served with PBS equipment, etc.

Ultimately, only the market will determine the latent demand for the use of PBS vehicles. Again, this is consistent with the PBS philosophy, which says that an operator should be able to design and operate any vehicle subject only to meeting defined performance criteria. The challenge for industry is take advantage of any productivity benefits which this regulatory regime offers.

However, if government is convinced that there is substantial national productivity or environmental benefit to be realised by much wider use of PBS vehicles, it may well consider providing incentives for fleet renewal. This would imply recognition that the benefits and rewards to the community are widely distributed, and that all of the rewards do not accrue just to operators.

5.10 A Never-ending Journey

Finally, it is important to note that PBS is not an end in itself; it is one means by which greater productivity in the freight sector can be achieved. However, since COAG has established an objective of 'continuous productivity gains' (www.ntc.gov.au, 22 July 2009), PBS is not the end of the journey. Hence, productivity enhancement in many forms, whether using the PBS concept or not, will continue. These enhancements may be alternatives to or complementary with PBS, and could involve anything from technological to institutional to regulatory change. The journey is, in fact, never ending.

6 Conclusions

Building on the propositions outlined in Section 5 above, it will follow that the Round Table has identified a number of potentially valuable ideas for actions, which are do-able, viable and potentially beneficial. It is important to note that these ideas reflect the contributions made on the day from participants who were representing their respective organisations or industries. Therefore the conclusions presented here may not necessarily be agreed, objective or even accurate, nor imply that current practices or policies are incomplete or inadequate. Nevertheless, such perceptions are important since they reflect perceived insights and perhaps highlight potential opportunities for action.

These may be summarised as ideas related to:

- Policy development
- Regulatory enhancements
- Capacity building
- Technology and operational practices
- Advocacy and communication
- Technology and operational practices

6.1 Policy Development

Strategies and ideas related to policy development include:

- Continue the reform process initiated through COAG and ATC, facilitated by NTC.
- Continue to develop an agreed vision for freight transport generally, and for road freight in particular, emphasising its critical role in improving national economic productivity.
- Align risks with rewards where possible – one suggestion was that higher levels of government guarantee compensation for the financial risks that road agencies and local government must take.
- Consider providing Commonwealth incentives for fleet renewal, on the basis that there is a substantial national productivity or environmental benefit from achieving wider use of PBS vehicles.

Policy development is of course ongoing via several forums and in the context of various policy frameworks. These frameworks are probably sufficiently robust and comprehensive to encompass ongoing policy development in relation to the sorts of issues identified in the above list. The NTC website is a good source of information on existing and evolving national policy on freight and heavy vehicles.

6.2 Regulatory enhancements

Strategies and ideas related to regulatory enhancements include:

- Continue to develop the regulatory process with the aim of achieving greater transparency, clarity, certainty and accountability.
- Continue to develop regulations and approval mechanisms to achieve nationally-consistent outcomes in terms of vehicles and network access (including last kilometre).

- Enhance the approvals process through facilitating better communication between regulators and PBS vehicle/equipment designers, proposers, assessors and certifiers.
- Ensure that regulators (including local government) have all of the information needed to assess a PBS application.
- Conversely, ensure that an applicant knows what is required for their proposal to be considered.
- Consider the development of a “one stop shop” for the assessment of PBS applications, covering technical, operational, and access issues in one seamless approvals process (the proposed national regulator goes part-way towards this).

The recent steps taken to establish a national heavy vehicles regulator indicates that there is a framework and an appetite for reform which can facilitate future regulatory enhancements such as these. In some senses, these are unchartered waters, but it seems clear that there is a commitment to continue with reforms aimed at producing a more accessible, consistent and open regulatory environment.

6.3 Capacity building

Strategies and ideas related to capacity building include:

- Facilitate access to reliable and timely information on technical issues and technological development, particularly to local government and regulators.
- Develop skills and expertise, supported by access to good information, within regulatory agencies and local government.
- Consider the merits of developing a quick calculator, perhaps web-based, to enable an operator or equipment manufacturer to determine whether a PBS configuration is likely to be acceptable.

Several organisations and institutions have a role in capacity building of the above sort. Industry organisations in particular recognise the need for training and professional development, but may not be well-positioned or sufficiently well-resourced to deliver. The proposed national regulator is likely to have a key role to play in promoting expertise and capacity building in the industry and government, since training and skills development is recognised as an important enabler for productivity improvement

6.4 Technology and operational practices

Strategies and ideas related to technology and operational practices include:

- Continue to foster innovation through the PBS process.
- Encourage equipment designers and manufacturers to develop “mainstream” vehicles for specific applications, rather than just one-off “boutique” vehicles.
- Continue to improve the technical understanding of PBS vehicle performance and the impacts of PBS vehicles on roads and bridges.

Innovation is at the core of the PBS philosophy and care needs to be taken to ensure that, whatever regulatory or policy frameworks emerge, such innovation is fostered not inhibited. The proposed national regulator may have an important role to play here also, perhaps by fostering collaboration and cooperation between key participants, and facilitating the exploration of new ideas in a pre-competitive context.

6.5 Advocacy and Communication

Strategies and ideas related to advocacy and communication include:

- Proactively advocate the benefits of road reform, emphasising not only the national economic imperative, but also congestion, safety, and "green" (emissions, greenhouse, energy security) benefits.
- Find and use champions to promote reform – people or organisations with credibility who the public will respect and trust. This includes public sector and industry champions.
- Facilitate exchanges of information to ensure that key players, including the industry, equipment manufacturers, regulators, local government, policy-makers and the public are well-informed.
- Develop strategies for managing relationships with relevant stakeholders (including the public) to educate and influence them, but also to listen to their concerns.

Several institutions and organisations have an existing and ongoing role in advocacy and communication to their respective constituencies, including NTC, the state and territory road authorities, and industry associations. However, there may be merit in greater coordination and collaboration between these groups with the aim of improving information and advocacy messages, including those listed above. There is also the challenge of developing effective communication channels between these institutions and organisations to ensure that information exchanges (in both directions) are relevant, accurate and timely.

LIST OF ATTENDEES

Invitees:

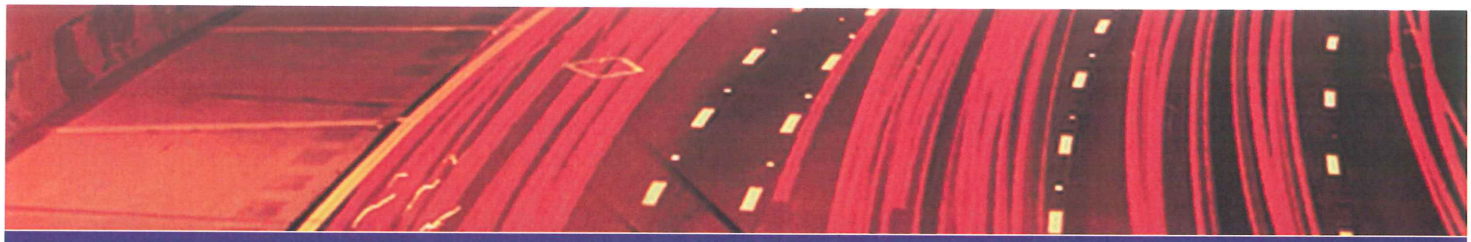
Vicki Brown, Australasian Railway Association
Ian Butterworth, Maribyrnong City Council
Ron Caithness, Woolworths
Bob Edwards, Australian Road Transport Suppliers Association
Rose Elphick, Victorian Freight and Logistics Council
Caitlin Garner, COAG Road Reform Plan
Andy Hrast, Australian Local Government Association
John Hennessy, Municipal Association of Victoria
Brett Hughes, Australasian Railway Association (until 17 December 2009)
Phil Lovel, Victorian Transport Association
Doug Morgan, Main Roads Western Australia
Meena Naidu, National Transport Commission
Rob Perkins, Australian Road Transport Suppliers Association and Victorian Transport Association
Brett Reid, Transport Workers Union
Geoff Rose, Monash University
Narrida Smith, GHD
Maurice Stabb, Wyndham City Council and Institute of Public Works Engineering Australia
Phil Webb, Kenworth Trucks
Kathy Williams, Bunker Freight Services and Australian Trucking Association
Mark Wolstenholme, NRMA
Steven Wong, Transport Certification Australia

Facilitators, Discussion Leaders

Neil Aplin, COAG Road Reform Plan
Ken Ogden, Ken Ogden and Associates
Gerard Waldron, ARRB Group
Ian Webb, Roads Australia

ARRB Support Staff

Luke Calloway
Matt Elisher
Anthony Germanchev
Damien Hense
Ernst Huning
Adam Ritzinger
Phil Roper



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