# SINGLE, NATIONAL RAIL SAFETY REGULATORY AND INVESTIGATION FRAMEWORK

# DRAFT REGULATORY IMPACT STATEMENT

**November 2008**

National Transport Commission

**Prepared by**

**National Transport Commission with Booz & Company**

*National Transport Commission*

**Single, National Rail Safety Regulatory and Investigation Framework: Draft Regulatory Impact Statement**

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# REPORT OUTLINE

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| **Key words:** | rail, regulation, safety, impact assessment |
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**Comments to be addressed to:**

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# FOREWORD

The National Transport Commission (NTC) is an independent body established under Commonwealth legislation and an intergovernmental agreement. The NTC is responsible for leading regulatory reform at a national level to improve transport in Australia for both users and the broader community. In this role, the NTC is charged with developing, monitoring and maintaining uniform or nationally consistent regulatory and operational reforms relating to all modes of transport.

In February 2008, Australian Transport Council (ATC) agreed to begin an ambitious program of national reform to address significant national challenges across all transport modes.

The Council of Australian Governments has previously recognised the importance of rail safety regulation to this nation, setting a revised deadline of December 2008 for introduction of legislation based on the national model Rail Safety Bill 2006.

"No blame" investigation of rail safety accidents in Australia is an important contribution to improved safety. Governments, industry and unions value independent safety investigations that identify the causes of incidents and seek to prevent their recurrence.

This draft regulatory impact statement considers the options for a single, national rail safety regulatory and investigation framework to further position Australia's railways for national issues of safety, efficiency, competition and growth.

Comments on the draft regulatory impact statement are invited. Following the submission period the NTC will finalise the draft regulatory impact statement. It will be considered by Ministers in early 2009.

Many people have contributed to the preparation of this draft regulatory impact statement in a very short period of time. A large number of NTC staff members have played a role, including Damian Callachor and Karen Dowling, and a special tribute goes to Dutch policy analyst Sander Jansen. External advisors from around the nation have also contributed to the development of this draft document.

Greg Martin
Chairman

# SUMMARY

On 25 July 2008, Transport Ministers directed the NTC to prepare a regulatory impact statement (RIS) for a single, national rail safety regulatory and investigation framework.

Since that time, NTC has undertaken targeted consultation in order to understand the problems institutional changes might address. The previous rail safety reform package, of which the national model Rail Safety Bill was a part, identified insitutional issues as a separate but related aspect of improving rail safety regulation.

Institutions make an important contribution to safety. In rail this has primarily been recognised with the creation of independent regulators and investigators in New South Wales and Victoria.

A single, national rail safety regulatory and investigation framework presents an opportunity to establish rail safety regulation and investigation on a par with overseas best practice and with practice in other transport modes. Rail transport deserves this chance to face its future challenges from a position of strength in regulation and investigation.

Rail safety regulation

This draft regulatory impact statement considers three conceptual options for a single, national regulatory framework:

- the status quo
- a substantial improvement to the current state-based arrangements;[1] and
- a national rail safety regulator.

The analysis finds that there is room for improvement on the status quo. Rail safety regulation would benefit from a substantive improvement in inter-jurisdictional arrangements or the creation of a national regulator. The creation of a national regulator would be more expensive than corresponding changes to state-based arrangements, but in turn would result in greater safety benefits.

NTC recommends in this draft regulatory impact statement the creation of a single, national rail safety regulator.

Rail safety investigation

This draft regulatory impact statement considers three conceptual options for a single, national investigation framework:

- the status quo
- a substantial improvement to the current Commonwealth, state and territory arrangements; and
- a national rail safety investigator.

[1] primarily using a decision-making panel based on the competent authorities model in dangerous goods regulation

The analysis finds there is room for improvement on the status quo. Investigation arrangements around Australia would benefit from additional capacity and a lifting of legislative provisions to the same high standard that exist in some jurisdictions. Proposals for change must consider the current multi-modal composition of Australia's independent investigators to ensure that all modes benefit from changes in rail safety investigation.

NTC suggests in this draft regulatory impact statement that either an improvement to current arrangements or a national approach to change should be considered. The draft regulatory impact statement invites stakeholder comment on whether national change should be contained to rail safety investigation or be undertaken with all modes in mind, noting that this last suggestion is outside the scope of the task Ministers directed NTC to undertake.

The way forward

Stakeholder comment and input on this draft regulatory impact statement is important. Formal submissions from governments, industry, unions and other interested parties are welcomed.

NTC and governments will be inviting a range of stakeholders to discuss the regulatory impact statement in a series of forums in November and December.

Once submissions close, the draft regulatory impact statement will be amended to respond to stakeholder comments. NTC will publish a list of changes made to the draft regulatory impact statement. The draft regulatory impact statement will then be considered by senior government officials and ATC in early 2009.

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# INTRODUCTION

In this section of the draft regulatory impact statement, readers are introduced to the broad policy context of the single, national rail safety regulatory and investigation framework.

References are made to relevant Council of Australian Governments (COAG) statements, Australian Transport Council (ATC) statements and to the National Transport Policy Framework released earlier in 2008.

The section also includes a short literature review and concludes with an outline of the format of the draft regulatory impact statement.

## 1.1 Rail safety

### *1.1.1 Council of Australian Governments*

> *"The goal of regulatory reform is to improve national economies and enhance their ability to adapt to change. Better regulation and structural reforms are necessary complements to sound fiscal and macroeconomic policies."*[2]

In 2006 COAG identified rail safety regulation as a cross-jurisdictional "regulatory hot-spot" where overlapping and inconsistent regulatory regimes were impeding economic activity.

COAG noted that the need to comply with different rail safety regimes across jurisdictions increases regulatory and operating costs to the rail industry and adversely impacts on the competitive position and efficiency of interstate rail freight operations. COAG agreed that:

a) mainland governments will implement by 30 June 2007[3] the National Transport Commission-developed model rail safety legislative package that has been agreed by ATC;

b) governments, through the ATC, will develop a nationally consistent rail safety regulatory framework through the measures and by the timeframes outlined in Appendix A; and

c) the ATC will present a final report to COAG by 30 June 2008.

COAG has subsequently extended the deadline for implementing rail safety legislation.

In late 2007 COAG identified seven areas for its 2008 work agenda, including business regulation and competition. The business regulation and competition working group has a number of objectives relating to regulatory efficiency, including accelerating the previously-agreed hot spots agenda, including rail safety regulation.

In early 2008, COAG committed to a comprehensive new microeconomic reform agenda for Australia, including regulatory reform. The regulatory reform stream of COAG's commitment includes rail safety regulation.

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[2] OECD, p1

[3] COAG noted that while Tasmania will implement the model legislation and regulations, it will be unable to achieve this in 2007.

### 1.1.2 Australian Transport Council, National Transport Policy Framework and principles

In February 2008 ATC agreed to the National Transport Policy Framework, *A New Beginning for Transport*. The framework's safety policy objective is to provide a safe transport system that meets Australia's mobility, social and economic objectives with maximum safety for its user. The framework also suggests that rail safety governance be improved through a national rail safety regulator.

In May 2008, ATC agreed to a range of transport policy objectives and principles, including the safety objective outlined above and the following principles:

- National regulation: a national perspective should be adopted where regulation is required.
- National markets: encourage national markets where possible.

In July 2008, Transport Ministers decided to:

- instruct the National Transport Commission to prepare a regulatory impact statement for a single, national rail safety regulatory and investigation framework;
- note that they will consider the NTC's regulatory impact statement in early 2009, and make a recommendation to COAG's first meeting next year. The regulatory impact statement will consider all viable options for establishing a single, national system, and will involve consultation with stakeholders during preparation of the regulatory impact statement; and
- reaffirm that in the interim all jurisdictions would proceed with the model rail safety legislation previously agreed by COAG.

The ATC decision emerged from a strong desire to continue rail safety reforms to ensure the rail industry is in a competitive position for the future. Governments developed model rail safety legislation to produce national consistency, but passage of Acts through Parliaments has been slow, there are inconsistencies between Acts and the model Rail Safety Bill and the slowing of reform is frustrating to industry. There is a view that reforming the institutional arrangements underpinning the Bill would help deliver the safety and efficiency benefits contained in the Bill.

### 1.1.3 Regulation theory

*"What is distinctive about the regulation of safety is that it is the regulation of risk."*[4]

In regulatory literature the co-regulation of rail safety by governments and industry is thought of as meta-regulation, where the regulator sets safety goals and the regulated entity determines how it will achieve the goals.[5] Gunningham describes co- or meta-regulation as government "risk-manag[ing] the risk management of individual enterprises."[6] Regulated entities are best placed to look after safety in their operations, but governments have a legitimate interest in ensuring acceptable levels of safety that meet community expectations and maintain public confidence.

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[4] Hopkins, p3
[5] Haines and Gunningham both use the term "meta-regulation"
[6] Gunningham, p11

Co-regulation is generally thought of as a middle ground between highly prescriptive regulation, which is less flexible for industry and government, and self-regulation, which reduces industry attention to public goods such as safety.[7] Safety outcomes are improved by increasing the extent to which the requirements of rail safety regulations are met or exceeded, and by improving the effectiveness of safety management systems in meeting the general duties/safety obligations to manage safety risks so far as is reasonably practicable.

Malcolm Sparrow's *The Regulatory Craft* illustrates how good regulatory practice is evolving beyond black letter law to an increasingly sophisticated, risk-based approach to regulation. Sparrow writes of "the operational work of reducing risks – results oriented, often highly analytical in identifying risk concentrations, but open as to the means employed to accomplish the goal."[8]

Risk management by regulators of industry's risk management requires the regulator to understand the risk problem, communicate what is required and facilitate the development of procedures to address and reduce risk over time, and lastly to develop an understanding between regulator and regulated of the risk and safety problem and capacity to deal with this jointly.[9]

Above rail, risks to rail safety are aligned with the nature of the rail operation – passenger transport, freight, resources transport, tourist and heritage; and circumstances (location) – metropolitan, regional, remote. Below rail risks relate to different facets of rail operations – train control, maintenance and asset management, new infrastructure, complexity, interfaces and access issues. Current institutional arrangements in Australia inherently limit risk/ resource decisions to within state borders.

States and territories currently have different infrastructure, rolling stock and communication standards. The age of railway infrastructure in different states and territories also varies. Current regulatory arrangements allow for close monitoring of local conditions.

Most people associated with rail would acknowledge that metropolitan passenger railways pose the highest risks to public safety, including where freight rail interacts with passenger rail. From an industry insurer's point of view,[10] the greatest risks are remote level crossing accidents, because of the high value of the economic damages sustained.

Model rail safety legislation developed by the National Transport Commission and approved by ATC in 2007 provides for general safety duties that require all rail industry participants to ensure the safety of their railway operations. These statutory duties of care define the required level of safety and make clear which parties have accountabilities for rail safety. Some argue that in managing risks and ensuring safety in operations, "general duty legislation makes the task of the regulator (and industry) far less clear-cut than it was under prescriptive regimes."[11] Nevertheless, there are still rules to be followed, whether in

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[7] Meta-regulation has considerable appeal in overcoming chronic challenges associated with regulation, problems of rigidity with an overabundance of prescriptive rules and alternatively the reduction in standards that accompanies a shift to self-regulation where both the procedures and the outcomes are under the control of the (self)regulated community." (Haines, p29)

[8] Sparrow, p84

[9] Haines

[10] Pers. communication, Bottomley

[11] Hopkins, p17

the form of codes of practice, standards, guidelines or even notions of "good industry practice".[12]

A number of parties have responsibilities for rail safety: industry operators, employees, employee unions, industry associations, regulators, investigators, regulatory and investigatory staff and government departments. Relationships between all of these actors contribute to rail safety.

The direct measure of the success of any regulatory arrangement is not the number of injuries or reportable occurrences (too many other factors beyond regulatory control can influence these small numbers), it is the timeliness and quality of decisions, the knowledge applied to provide guidance to industry and the extent of diversion of money, time and resources away from implementing safety outcomes towards negotiating the regulatory process.

The success of any regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. A particular regulatory system (including institutions, rules and practices) delivers better safety outcomes to the extent that it:

- enhances compliance (either by making it easier for the regulated to comply by removing barriers to compliance, or by deterring non-compliance through more effective enforcement and sanctions); or
- assists regulators and industry in making better decisions as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Allocation by industry of its resources to actions with the highest safety benefit is therefore paramount. Any system of rail safety regulation, including the institutions that underpin it, should ensure the rail industry's opportunity costs (delays in approvals, avoidable costs) in implementing business and safety improvements are minimised.

This project is concerned with institutions for the regulation of rail safety and for investigations of rail accidents. This draft regulatory impact statement examines the possibility that changes to institutional arrangements might contribute to better regulatory practice and hence enable improved safety in, on and around railways.

## 1.2 Format of report

This draft regulatory impact statement is broken up into five parts:

- Introduction
- Part A: rail safety regulation
- Part B: rail safety investigation
- Part C: conclusions and recommendations
- Appendices

[12] In practice, duty holders need guidance on how to comply, and various quite prescriptive codes of practice and standards have been developed to meet this need." (Hopkins, p6)

Part A addresses rail safety regulation: the current situation; the problem; the objective of government action; the options to address the problem and meet the objective; and the impacts, costs and benefits of the options for a single national framework.

Part B addresses rail safety investigation: the current situation; the problem; the objective of government action; the options to address the problem and meet the objective; and the impacts, costs and benefits of the options for a single national framework.

Part C draws together the analyses from Parts A and B to conclude and recommend the next steps for rail safety regulation and investigation. It also discusses the consultation undertaken in preparing this draft regulatory impact statement.

## PART A – REGULATION

Part A addresses rail safety regulation:

- the objective of government action (section 2)
- the current situation (section 3)
- the problem (section 4)
- the options to address the problem and meet the objective (section 5)

Section 6 evaluates the impacts, costs and benefits of the options for a single national framework.

## *2.* OBJECTIVE

The objective of this draft regulatory impact statement is to examine options and recommend the optimal rail safety regulation framework for Australia. It is envisaged that a single, national rail safety regulation framework would apply to those rail operators to which the national model Rail Safety Bill applies or will apply.[13]

Positive safety outcomes are paramount in any system of safety regulation. Good regulation theory indicates regulation needs to be as efficient and effective as possible, provide certainty for industry and eliminate unnecessary regulatory compliance burdens.

Good rail safety regulation should address the following principles for rail safety regulation:

> **Transparency**: regulator(s) should have clear processes and methods in place to facilitate free flow of information on safety matters within the regulatory body and beyond.
>
> **Independence**: regulator(s) should be independent of Ministers, funding bodies, operators, policy setters and investigators.
>
> **Relationship with Ministers responsible for rail safety:** regulator(s) will maintain a relationship with each Minister responsible for rail.
>
> **Ministerial capacity to refer:** a minister can ask the regulator(s) to investigate particular concerns in the jurisdiction, but cannot direct the regulator in those investigations or influence the outcome of those investigations.
>
> **Consistency of operation**: regulator(s) should provide a consistent framework for regulation across jurisdictions, based on the national model Rail Safety Bill.
>
> **Responsiveness**: regulator(s) should provide an acceptable level of responsiveness to safety concerns, regardless of location of incidents or concerns.

[13] s(6) of the Rail Safety Bill provides that the model legislation does not apply to certain underground mining railways, slipways, railways used only to guide a crane, an aerial cable operated system, a railway in an amusement or theme park registered under occupational health and safety legislation and not operating across a road, and any other railways prescribed in local regulations. The Bill also excludes private sidings.

**Best regulatory practices**: regulator(s) should adopt modern regulatory approaches and good practice regulation. It should be neither "gold plated" nor should it lead to a lowest common denominator approach to rail safety.

**Risk-based regulation**: the activities of the regulator(s) should be concentrated on the areas of the highest identified risk, which may change over time.

**Sufficient capacity and expertise**: regulator(s) should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages.

**Safety:** maintain and improve safety standards.

**Efficiency:** minimise red tape, duplication and inefficient practices.

**Clear explanation of role and function:** regulator(s) should have their role and industry's role in rail safety and accreditation clearly defined in legislation.

**Co-regulation**: government and industry share responsibility for rail safety and the regulator(s) role is to establish safety goals and oversee industry's responsibility for those goals.

These principles were developed in conjunction with experienced investigators and regulators. The main feedback received was from Victorian government officials, who asked that safety be included as a principle. The principle about the relationship with Minister(s) was also clarified as previously it was described as a 'strong' relationship which could imply closeness.

# 3. THE CURRENT SITUATION

This section describes the current situation in rail safety regulation in Australia.

## 3.1 The rail industry and rail safety regulation

### *3.1.1 History*

Rail safety regulation is relatively new to Australia, having been around for approximately 15 years. Before that time, railways were government-owned and vertically integrated. All the various activities in a railway were done by government agencies so the railways were directly accountable to governments for safety.

According to John Hearsch (2008) and others, Australia's rail industry has experienced an unprecedented period of upheaval and re-structuring over the past decade, starting with the break-up and privatisation of Australian National in 1996. With few exceptions, the institutional and ownership arrangements that had long characterised Australian railways until the early 1990s are largely unrecognisable today.

In the second reading speech for Victoria's 2006 Rail Safety Bill, the Minister for Transport said:

> *"Metropolitan train and tram services and country rail services in Victoria were until the late 1990s almost solely operated by government or managed by wholly government-owned public entities. …By 1999, the Victorian rail system had been disaggregated and privatised. The passenger rail system is now managed through partnership agreements between government and rail infrastructure managers and*

> *rolling stock operators. Intrastate and interstate rail freight operations and infrastructure management are also now fully privatised.*"

The ownership and management of Australia's railways are now generally divided into 'below rail' (track and infrastructure management) and 'above rail' (operators of trains and rolling stock) operators. These arrangements vary depending on the state and rail network concerned.

In 1996 the Commonwealth, states and the Northern Territory signed an Intergovernmental Agreement on Rail Safety. The agreement was to establish a cost effective, nationally consistent approach to rail safety which ensured there was no barrier to the entry of third party operators. In accordance with the intergovernmental agreement, the parties undertook to legislate for rail safety, and more specifically, to include provisions in the state and territory legislation that is sufficient to meet the terms and conditions of the agreement.

Institutional arrangements in rail safety regulation have been examined before. In 1999 ATC engaged consultant Booz Allen Hamilton to review the 1996 intergovernmental agreement. The review recommended, amongst other matters, the introduction of a single national regulator. The recommendation was not endorsed by ATC at the time.

The 2006 Productivity Commission inquiry into road and rail freight infrastructure pricing found,

> *"There are efficiency gains to be obtained from a single institutional framework for safety regulation of rail. The adoption of nationally consistent rail safety regulation legislation by July 2007 is, therefore, a priority. Gains from harmonisation would be compromised if jurisdictions legislate based on differing interpretations of the nationally agreed draft bill.*[14]

NTC delivered a rail safety reform package for ATC approval in 2007. The package included model rail safety legislation and related projects and documents. The question of institutional arrangements was put to one side to be addressed after implementation of the reform package.

### 3.1.2 Institutional arrangements

All states and the Northern Territory have passed rail safety legislation and undertake rail safety regulation. Rail safety is regulated as per the following:

- in New South Wales by the Independent Transport Safety and Reliability Regulator, an independent statutory authority, in accordance with the *Rail Safety Act 2002*;
- in Victoria by Public Transport Safety Victoria, which is headed by an independent office of the Safety Director, in accordance with the *Rail Safety Act 2006*;
- in Queensland, by Queensland Transport, in accordance with the *Transport Infrastructure Act 1994*;
- in Western Australia, by the Department of Planning and Infrastructure, in accordance with the *Rail Safety Act 1998*;

[14] http://www.pc.gov.au/__data/assets/pdf_file/0003/47532/freight.pdf accessed 23/09/2008

- in South Australia by the Department of Transport, Energy and Infrastructure, in accordance with the *Rail Safety Act 2008*;
- in the Northern Territory by the Department of Planning and Infrastructure, in accordance with the *Rail Safety Act 1998*; and
- in Tasmania by the Department of Infrastructure, Energy and Resources, in accordance with the *Rail Safety Act 1997*.

The Commonwealth and the Australian Capital Territory do not regulate rail safety.

### *3.1.3 Rail safety legislation*

The national model Rail Safety Bill 2006 and national model regulations were developed in conjunction with representatives of jurisdictions, the rail industry and rail unions, and receive legal effect when reproduced in each jurisdiction's legislation.

The major regulatory changes included in the national model legislation are:

- rationalisation of use of regulatory instruments
- power to declare certain Codes of Practice to have deemed to comply status
- expanding range of powers available to regulators
- hierarchy of enforcement and sanctions options
- strengthening regulators' powers of direction
- explicit appeals mechanisms
- explicit criteria for accreditation
- limiting scope of accreditation
- involving rail personnel in development of SMS
- interface co-ordination plans
- data publication requirements.

A revised deadline of December 2008 has been set by COAG for implementing the agreed legislative reforms in a nationally consistent and co-ordinated manner. It is understood that COAG attributed the need to extend the deadline to take into account the limited legislative drafting capacity in some of the smaller jurisdictions.

At November 2008, Victoria and South Australia have implemented legislation based on the model Rail Safety Bill and legislation is before the New South Wales Parliament. The legislation in New South Wales and Queensland was delayed by the resolution of policy issues surrounding the general duty to ensure safety. Queensland, Western Australia and the Northern Territory are aiming to introduce legislation before the COAG deadline. Tasmania was granted an extension by COAG until the end of 2009.

Provisions of the national model Rail Safety Bill 2006 may be varied where necessary to conform to local legal policy requirements and legislative drafting practice. Also, some of the model provisions have been classified as 'non-core'. These were considered valuable

and desirable provisions for inclusion in best practice national rail safety legislation but their implementation in all jurisdictions was not regarded as essential for nationally consistent rail safety outcomes. Maximum penalty levels for rail safety offences have not been specified in the model Rail Safety Bill due to the need for penalty levels to be consistent with each state and territory's monetary penalty policy.

South Australia's legislation is closely aligned with the model legislation, although a small number of variations were negotiated with stakeholders during preparation of the legislation. Victoria's legislation was passed before the model Rail Safety Bill was approved and contains some differences from the model legislation.

In conjunction with the preparation of the national model rail safety legislation, NTC initiated a Review of Institutional Arrangements for Regulation of Rail Safety, which was to be conducted in two phases. The first phase was concerned with the future of the 1996 Intergovernmental Agreement on Rail Safety (which will be repealed when all jurisdictions' legislation is implemented); processes for guidelines, compliance codes and industry standards; and formal processes for the monitoring, review and maintenance of legislation, regulations and guidance materials.

The second phase of the Review of Institutional Arrangements for Regulation of Rail Safety was to be concerned with:

- the case for and against a single national regulator and the alternatives;
- the separation of regulatory powers, roles and functions;
- operation of the interfaces between portfolios, policy makers and regulatory bodies;
- collection, analysis and dissemination of rail safety data; and
- training and competencies necessary to support efficient and effective application of the rail safety regulatory system.

Of these matters, the second phase had only addressed data and training issues when ATC directed NTC to prepare the regulatory impact statement for the single, national rail safety regulatory and investigation framework.

NTC will commence a formal maintenance process for the national model Rail Safety Bill after a majority of jurisdictions implement the legislation. The maintenance period may begin after the COAG December 2008 deadline for implementation of legislation. During the maintenance period NTC will develop any required amendments to the model Rail Safety Bill and regulations. NTC will also audit and monitor variations in legislation from the model Rail Safety Bill.

### *3.1.4 Rail Safety Regulators Panel*

The Rail Safety Regulators Panel ("the Panel") comprises nominees from the rail safety regulator in all states, the Northern Territory and New Zealand. The Panel helps facilitate nationally consistent outcomes in a collegiate fashion by:

- making coordinated and consistent decisions to achieve the uniform administrative objectives of rail safety legislation;

- developing guidelines and national operational regulatory policy;
- developing and ensuring consistent application of key business processes;
- assisting individual regulators with the administration of regimes and monitoring adherence to uniform administrative processes;
- facilitating the development of national training packages for regulatory staff to meet agreed national competencies;
- collectively advising on the operation of rail safety regulatory regimes and inputting into national forums through the Chair;
- sharing national and international experience and knowledge and investigation findings;
- analyzing and evaluating investigation findings and recommendations, assessing their impacts on industry and regulators and making recommendations, where appropriate for improvements to regulatory frameworks or industry standards; and
- Facilitating the collection and strategic analysis of rail safety data to inform regulatory decision making and improvement of regulatory systems.

Panel decisions are made by consensus. If a consensus cannot be reached, reasons for this will be clearly documented and if necessary referred formally to departmental officials for direction or decision.

### *3.1.5 'Mutual recognition' of operator accreditations*

The purpose of mutual recognition is to promote economic integration and increased trade between participants. It is one of a number of regulatory techniques available to governments to reduce regulatory impediments to the movement of goods and provision of services across jurisdictions. Used in relation to goods and occupations, the mutual recognition principle in law is an administratively simple strategy for achieving a national market in goods and services in Australia, resulting in mutual recognition of regulatory standards of the states and Territories relating to goods and occupations.[15]

In rail safety, formal mutual recognition of this sort does not operate Australia-wide. If it did, it would mean that one jurisdiction would grant an operator accreditation by automatically recognising an accreditation granted by another jurisdiction. Most states do not have legislative provisions for formal mutual recognition. Provisions of this sort are not contained in the national model Rail Safety Bill.

ATC endorsed the *National rail safety guideline on uniform business rules for accreditation* in late 2007. The guideline suggests that regulators contact other rail safety regulators if an applicant for accreditation is already accredited in another jurisdiction. The regulator should:

- determine which other rail safety regulators need to be consulted;
- advise relevant rail safety regulator(s) of application;

[15] Information taken from the Council of Australian Governments' website

- compare permissions being sought by applicant with permissions granted or sought in other jurisdiction(s); and
- make arrangements with other relevant rail safety regulators for joint assessment of the application if there are applications in multiple jurisdictions.

A lead rail safety regulator should be appointed selected on a case by case basis. Arrangements for correspondence with the applicant are to be established in consultation with other regulators and the applicant on a case by case basis.

The guideline notes that while joint assessment of an application may be undertaken, each rail safety regulator remains obliged to satisfy themselves that the applicant has met the requirements for accreditation in their jurisdiction. This is a decision for the individual jurisdiction only and is not taken by cross jurisdictional committee.

### 3.1.6 Funding and staffing

In 2005 NTC prepared a regulatory impact statement for the national model Rail Safety Bill. At the time, NTC found that the total annual cost of rail safety regulation was approximately $25 million and one jurisdiction accounted for more than half of the total national expenditure[16]. By contrast, expenditure in five of the seven jurisdictions was less than $1 million. Further, complementary research showed that of all regulatory staff in Australia, approximately 50% were deployed in one jurisdiction. Staffing numbers in the other jurisdictions varied between 2 and 33.

Research for this draft regulatory impact statement estimated the spend on rail safety regulation had risen only slightly to $27 million. The research also found there are 176.5 full time equivalent (FTE) regulatory staff across Australia. The industry body has previously estimated that there are 154 regulatory staff.

### 3.1.7 Rail operators

Rail operators are accredited by rail safety regulators to operate. The purpose of accreditation is to attest that a rail operator has the competence and capacity to manage the risks to safety associated with the rail operations for which accreditation was granted.

Accreditation is a method by which rail safety regulators can give an assurance to the public that a rail operator has systematically considered the risks from their operations and has in place a system to eliminate or reduce those risks. Due to the potential hazards involved with railway operations, the assurance of accreditation is required before a person is permitted to operate a railway.

In 2003 it was estimated there were approximately thirty rail operators in Australia.[17] Recent analysis of accredited rail operators in the states and Northern Territory shows that number has almost tripled. There are now around 84 commercial Australian rail operators and 31 operators or 37% are accredited to operate in more than one jurisdiction. Operators with more than one accreditation hold an average of three or four accreditations. A further 83 tourist and heritage rail operators are accredited to operate in their home state or territory.

[16] National Transport Commission (2005)
[17] http://www.atcouncil.gov.au/documents/nrtc/nrtc_3.aspx

Australia's rail transport system is currently facing some important challenges, with the expected doubling of Australia's freight task from 2000 to 2020 and the increasing problems of urban congestion in major centres. Advocates for rail transport argue it has environmental and safety benefits in comparison with road transport. Rail is thought to be safer: a 2008 Australian Institute of Health and Welfare and Department of Infrastructure, Transport, Regional Development and Local Government study[18] showed that in 2005-06 the risk of serious injury for passengers travelling by car was as much as 10.6 times greater compared with passengers travelling by rail; and 'greener', producing less emissions on a tonne kilometre basis.

The industry peak body, the Australasian Railways Association, has for some time advocated a national rail safety regulator. The Australasian Railway Association is also supportive of a national rail safety investigator. Most recently the Australasian Railway Association commissioned Synergies Consulting to report on the costs of rail safety regulation, and reference is made to that report in this draft regulatory impact statement.

# 4. WHAT IS THE PROBLEM?

This section discusses issues associated with current rail safety regulatory arrangements relating to governance, safety and/or efficiency. NTC has built on examples raised by stakeholders and the work undertaken in previous studies to explain the issues.

It should be noted that in many instances, the problems described here are ones that would continue to exist once new rail safety legislation is implemented in each state.

## 4.1 Rail safety regulation

Current rail safety regulation arrangements are not yet optimal everywhere in Australia. The problem is discussed in the context of institutional arrangements but the progress of current rail safety legislative reforms – two states have legislation in place and a third is currently before Parliament – influences the problem statement.

In the following sub-sections the problem is explored further in relation to:

- regulatory independence;
- regulatory transparency;
- differing co-regulatory practices;
- inconsistencies between regulators;
- regulatory resourcing;
- regulatory expertise;
- implementing reforms and sharing knowledge;
- rail safety data collection and analysis; and
- efficiency:

[18] Australian Institute of Health and Welfare and Department of Infrastructure, Transport, Regional Development and Local Government (2008)

- industry costs of dealing with multiple regulators;
- modal competition;
- future transport growth;
- duplicated costs across jurisdictions.

### 4.1.1 Regulatory independence

Granting a regulator statutory independence can help governments avoid the possibility of regulatory capture or co-option by either industry or government interests, protect regulators from conflict in the regulatory process, and maintain public trust in rail safety regulation by ensuring an arms length relationship from other stakeholders.[19]

'Regulatory capture' is when a regulator and the entities in the industry it regulates build working relationships that have the potential to lead to the regulator becoming unwilling to perform its compliance tasks diligently and impartially in respect of the entities so as to avoid jeopardising those relationships.[20]

The independence of rail safety regulators was a key issue arising from the McInerney inquiries into accidents at Glenbrook and Waterfall. To allow for independence, the McInerney inquiries emphasised that there must be clear lines of accountability and the regulator must have the power and capacity to fully discharge its responsibilities.[21]

The United States, United Kingdom, European Union, Japan, New Zealand and Canada have recognised that accident investigation must be independent of the regulatory bodies, because the conduct of the safety regulator itself could be a matter for scrutiny by the accident investigation body when it investigates an accident or serious incident.

Combining policy formulation, the preparation of legislation, the administration and enforcement of regulation and the investigation of incidents in one agency may result in sub-optimal regulatory performance and create real or perceived conflicts of interest. It could be considered that in some jurisdictions independence is being compromised by housing the regulatory and policy bodies together.

### 4.1.2 Regulatory transparency

Transparency contributes to open and accountable delivery of regulation, increases the effectiveness of co-regulation and allows for greater public confidence in rail safety.

During consultation operators commented that:

- 'closed' processes and inconsistencies create uncertainty. NTC was told that often it is not clear what regulators want to know from operators across different jurisdictions;
- there appears to be no common and transparent methodology for decisions made about resourcing and the level of intervention; and

[19] Gunningham, p20
[20] Queensland Ombudsman, 63
[21] Special Commission of Inquiry into the Waterfall Rail Accident (2005)

- they desire greater openness on how regulators manage their interaction with one another on cross-jurisdictional matters.

McInerney's final 2005 Waterfall Final Report stated that:

> "*In order for co-regulation to succeed (…) it is necessary for the regulator and operator to co-operate in setting the standards by which the railway is to operate. This can be done successfully by a co-operative open arrangement (…) a co-operative, open relationship forces both the operator and regulator to share liability for any shortcomings in the development of safety management systems.*"[22]

A lack of regulatory transparency may compromise rail safety, because operators believe it creates uncertainty as to how decisions are being made and what will be acceptable to all relevant regulators. This may hinder industry's ability to deliver safe operations. The assignment of resources to deal with multiple regulatory processes diverts efforts from risk mitigation. The absence of certainty potentially delays implementation of further safety activities. Furthermore, from an institutional perspective it could be considered that closed processes allow for the possibility of sub-optimal decisions.

### *4.1.3 Regulator intervention*

NTC observed during consultation that co-regulation is practised differently across jurisdictions and the level of regulatory intervention varies significantly. This is not a recent development as the regulatory impact statement for the national model Rail Safety Bill noted that:

> *"… wide variations in regulatory resourcing clearly indicate that very different approaches to regulatory administration and enforcement are being taken in each jurisdiction."*[23]

One operator offered as an example that upon reporting a light fitting falling down on a train, the regulator required a two year maintenance history for all rolling stock. Addressing this request required the operator to present a range of documents requiring extensive research, diverting staff from other safety-related tasks.

NTC has observed that inconsistent regulatory intervention causes considerable concern for some industry operators. These arrangements provide for an unstable co-regulatory environment for interstate operators and discourage industry's ability to invest in long term safety management systems with certainty. Consequently, there is a potential risk of:

- putting the public at greater risk (in jurisdictions where regulatory intervention is considered insufficient); and
- imposing a disproportionately high regulatory burden onto the operator (in jurisdictions where regulatory intervention is considered heavy).

Arguably the current regulatory and institutional arrangements do not provide for a consistent understanding or practice of co-regulatory principles, accounting for different levels of regulatory intervention, thereby creating an unclear and uncertain environment for operation.

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[22] McInerney 2005, p.299
[23] NTC 2005, p.33

### 4.1.4 Regulatory inconsistency

In 2006 the Bureau of Transport and Regional Economics found that despite the stipulation of the safety and interoperability intergovernmental agreements, regulatory inconsistencies in rail had increased. Unilateral safety regulations and the level of prescription in different jurisdictions cause regulations and safety principles to diverge rather than converge. The Bureau of Transport and Regional Economics noted that:

> *"In principle, these inconsistencies are, in themselves, potential safety issues for operators to the extent they require firms to operate in different ways in different jurisdictions. Given these trends, once the regulations are in place, it is also then more difficult to achieve consensus on applying them in other jurisdictions."*[24]

The model Rail Safety Bill was to be the vehicle for uniform rail safety legislation in Australia. In practice however, the model Rail Safety Bill is subject to variations by jurisdictions. Stakeholders also recognise that the type, or level, of risk control that should be applied may need to vary in order to best reflect the risk environment.

Operators are critical of variations arising from the Bill, including differing interpretations of general duty to ensure safety in the model legislation. The general duty in the Bill can be varied to match the occupational health and safety regime in each jurisdiction.

In 2007 the Rail Safety Regulators Panel conducted workshops on administering the national model legislation consistently. The workshops were held in Melbourne, Sydney and Adelaide and more than ninety policy and operational regulatory staff attended.

Operators mentioned differences in accreditation processes to illustrate inconsistent practices. In situations where industry wants to adopt changes to their operations, the process can vary depending on the jurisdiction ranging from technical consideration, needing a variation to the operator's accreditation, needing a new accreditation or no additional requirements.

> "*One [survey] respondent indicated that some reduction in the accreditation task was achieved as core material from home state accreditation could be used in the request in a further state. However significant additional material was also required.*"[25]

The culture of a regulator also influences the way in which its' officers regulate operators. Different cultures across regulators contribute in part to difference regulatory approaches. Stakeholders note that the same legislation will be interpreted differently by two individuals in the same organisation, let alone in different states, which emphasises the important role cultural consistency can play in reducing regulatory inconsistency.

### 4.1.5 Regulatory resourcing

There is a significant variation in the level of resources dedicated to fulfil the regulatory task. The variability in resourcing can be attributed in part to the different risk profiles of each jurisdiction. However, there is also a variety of cost-recovery arrangements in the jurisdictions. Some regulators claim to be 100% cost recovery, while others acknowledge they are supplemented by public funding in order to maintain each jurisdiction's rail safety regulation.

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[24] BTRE 2006, p.214
[25] Synergies Economic Consulting 2008, p.38

Allocation of resources should be underpinned by regulator knowledge of risk, as mentioned in the Queensland Transport (QT) rail investigation of the 2007 Mindi incident:

> "*Although the QT audit and compliance inspection program proclaimed a focus on high risk activities, it never formalised any strategic approach for the determination of high risk areas in the organisations it elected to monitor.*"[26]

There is little disagreement about the importance of adequate resourcing to manage each jurisdiction's regulation. Adequate resourcing allows the opportunity for research and implementation of the best available services. However, NTC has also observed differences in the interpretation of appropriate resourcing. Consequently, there may be a risk of:

- under-resourcing: allows the opportunity for insufficient expertise by the regulator to effectively guide industry in making better decisions as to how a given risk or combination of risks can be reduced so far as is reasonably practicable. Furthermore, under-resourcing may delay accreditation, variation or notification processes which may improve safety;
- over-resourcing: over-resourcing allows the opportunity for heavy-handed regulation, which may compromise industry's ability to comply and effect change; and
- the unbalanced allocation of resources, which is likely to show up in inconsistent regulatory judgements and practices, both of which are undesirable.

It should be noted some valuable improvements to regulator resourcing have been made. During consultation some jurisdictions reported being granted additional resources after the Waterfall incident to address resource deficiencies.

### *4.1.6 Regulators' expertise*

The quality and number of regulatory officers is vitally important for implementing effective regulation, not least because undertaking the regulatory task requires considerable judgement and expertise. Regulatory officers must have appropriate knowledge of regulatory and investigatory principles and technical knowledge relevant to the regulated activity, skills incidental to the appropriate knowledge and commitment to the regulator's goals and the accepted standards of good regulation.[27]

Research has demonstrated the current regulatory system is facing significant resource challenges. Forecasts show that Australia's freight transport task will double by 2020. Consequently, there are increasing demands on the regulator for ongoing monitoring and auditing of safety management systems. The age profile of rail industry workers indicates that many experienced staff are likely to retire in the next decade. Considering that rail safety is a highly specialised area, the Bureau of Transport and Regional Economics questioned regulators' ability to cope with these trends:

> "*The diluted skill and experience base for scarce resources increases likelihood of regulatory failure.*"[28]

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[26] QT 2007, p.73
[27] QLD Ombudsman, p9
[28] BTRE 2006, p.247

In addition, following the 2007 Mindi incident an in-depth investigation was undertaken aimed at identifying the potential causes of the incident. The final report, among other factors, found that:

> "*In any case, QT failed to achieve its objective of an increased compliance inspection program due to a perennial lack of appropriate resource.*"[29]

A requirement of any regulatory framework is to utilise available expertise as efficiently as possible. Skilled resources are finite and are currently spread over several entities in different jurisdictions. Deployment of staff in one jurisdiction makes the service of those staff almost exclusive to that jurisdiction. Arguably, this may compromise regulators' ability to develop sound decisions, as it reduces the opportunity to tap from a nationwide pool of information, although the Rail Safety Regulators Panel offers a mechanism by which this may be lessened.

### *4.1.7 Reforming rail safety regulation*

Regulatory systems are constantly undergoing improvement. Under the current regulatory framework the capacity to develop consistent best practice responses to safety issues is constrained. Based on the consultation process, NTC has observed that:

- The current framework provides for inconsistent responses to industry requirements and government's safety goals.
- The Rail Safety Regulators Panel adopts a collegiate approach to national consistency. However, there are limitations to the Panel's ability to effect national change. Decision-making capacity is protracted due to the need to reach consensus. Entrenched cultural differences, priorities and resources available across members of the panel allow the opportunity for disagreement and inconsistent implementation.
- Cross-jurisdictional reform is particularly time-consuming and costly and often results in significant resources being devoted to policy, legislative and executive approvals in each state and territory; an example of this has been the delayed approach to the implementation of the model Rail Safety Bill.

The inability of regulators to promote and adopt consistent reform has been raised in previous studies:

> "*(…) jurisdictional safety regulators have continued to develop safety regulations on a unilateral basis (…). This trend is partially attributable to local responses to safety incidents. Regulatory responses to the Glenbrook, Waterfall and Port Botany accidents in NSW included regulators making unilateral decisions.*"[30]

Furthermore, as far as regulators' ability to progress changes is concerned, following the Waterfall incident the Safety Management System Expert Panel concluded in relation to regulatory safety investigation that:

> "*Little evidence was found that investigation results impacted upon continuous improvement in regulatory safety policy.*"[31]

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[29] QT 2007, p.73
[30] BTRE 2006, p.212
[31] McInerney 2005, p.303

Currently there is no mechanism in place for progressing consistent and timely reform. Given the Rail Safety Regulators Panel's sometimes protracted decision-making capacity, regulators' ability to adopt changes is constrained. This has multiple effects:

- It discourages consistent reform delivery across Australia. This lack of consistency may delay or misdirect industry investment in safety initiatives, due to the uncertainty of what will be acceptable to all associated regulators.
- It creates an opportunity for sub-standard regulation. For example, following the Glenbrook incident, various recommendations were developed by the Special Commission of Inquiry aimed at resolving regulatory deficiencies. These recommendations were formally reported only to the New South Wales regulator but were of interest to regulators around Australia.

In some instances the implementation of relevant Inquiry recommendations in other states could result in safety improvements, but no mechanism other than regulator goodwill exists to ensure this implementation occurs.

### *4.1.8 Knowledge sharing amongst regulators*

The current regulatory arrangements provide for collegiate information sharing through the Rail Safety Regulators Panel but formalised knowledge sharing is more limited. This may hinder the achievement of safety benefits arising from collaborative efforts.

The current regulatory arrangement increases the likelihood of knowledge isolation. In line with the discussion about regulator expertise, knowledge isolation may be a problem where jurisdictions lack expertise in particular fields but the expertise is known to exist in other jurisdictions.

Knowledge isolation can be dealt with by allowing for cross-jurisdictional knowledge distribution. Consolidation of expertise may contribute to a more efficient system of knowledge management and creates an ability to learn from similar situations and practices. However, it appears mechanisms to allow for knowledge sharing are not well developed.

The Rail Safety Regulators Panel represents the best means currently available to share knowledge among regulatory staff. Panel members share learnings from incidents and ensure the larger states' human factors expertise is available to all jurisdictions. There are no other formalised means to cater for the circulation of intellectual property across Australia. Therefore it could be considered that the potential to capitalise on cross-jurisdictional knowledge is under utilised.

### *4.1.9 Rail safety data collection and analysis*

Regulators' and industry's ability to address rail safety risks relies on the proper collection and analysis of rail safety information. Better data provides a more useful resource for policy makers, regulators, and the rail industry (including operators and others involved at the workplace) to identify, assess and eliminate or control safety hazards and risks. Such data also support research, performance monitoring and local and, subject to the constraints of comparability, international benchmarking.

Currently the collection, analysis and dissemination of data pose a considerable challenge for industry and regulators. In part, this challenge stems from the multi-jurisdictional

regime, although the Australian Transport Safety Bureau already publishes rail safety statistics, based on data supplied by regulators. The Rail Safety Regulators Panel has a number of projects under way to improve rail safety data and has most recently published a review of national level crossing statistics.[32]

Previous studies have identified the issues concerning data collection, analysis and dissemination. ACIL Tasman emphasised that improvements can be achieved by investment in a common rail safety database. The report found that:

> "*It would improve the prospect of collection and dissemination of consistent and statistically significant amounts of predictive and incident data. This would help the effective analysis of the causes of incidents and trends, the assessment of rail operators and identification of priority areas for attention and resources.*"[33]

Further, it is notable that the United States railways recognised this issue almost a century ago:

> "*Although the railroad industry in general was not in favour of reporting requirements, they did desire a standardized system of accident reporting rather than being forced to attempt to deal with a patch work of state laws on the subject. [In response, therefore] On May 6, 1910, the Congress enacted the Accident Reports Act of 1910.*"[34]

In 2006 the ATC recognised that there was no overarching strategy for collecting, accessing, analysing, publishing and using rail safety data in Australia and agreed on the need for a national, strategic approach to rail safety data.

NTC, rail regulators and the Australian Transport Safety Bureau developed a national strategy for rail safety data in consultation with industry. The strategy outlines the areas in which action is needed to improve rail safety data. The actions are for regulators and industry to develop and implement, and will go some way to addressing data deficiencies by providing the basis of a comprehensive and integrated national approach.

As part of the national data strategy, the Australasian Railway Association has committed to investigate options for a national industry rail safety database. A respondent to the Synergies 2008 survey (commissioned by the Australasian Railway Association), noted that:

> "*There currently exists no singular database which provides the necessary privacy, confidentiality and commercial integrity to each operator whilst allowing comparison on a like for like basis within each jurisdiction and nationally to operators with similar risk profiles.*"[35]

ATC Ministers are currently considering the national strategy for rail safety data. When implemented the strategy will have progressed the collection, access, analysis, publication and use of rail safety data in Australia, but actions in the strategy will be inherently limited by jurisdictional data differences.

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[32] http://www.rsrp.asn.au/files/publications/14_32..pdf
[33] ACIL Tasman 2003, p.7
[34] McDonald 1993, p. 15
[35] Synergies Economic Consulting 2008, p.41

## 4.2 Efficiency

Rail safety regulation is a public good, and therefore sometimes at odds with industry's pursuit of commercial outcomes. Transport safety regulators are not responsible for promoting industry growth; the incompatibility of these two roles was highlighted by the 1993 crash of a Piper Chieftain aircraft at Young, New South Wales. As documented by James Reason, the then-Australian Civil Aviation Authority's dual roles of industry promotion and safety regulation were split off into two organisations to avoid internal conflicts of interest.[36]

Nevertheless, safety regulatory frameworks must be designed to take into account issues of efficiency and avoidable costs, to ensure the regulatory arrangement does not result in unnecessary and uneconomic outcomes.

### *4.2.1 Industry cost*

The Australasian Railway Association and interstate rail operators argue that the need to comply with different rail safety regimes across jurisdictions increases regulatory and operating costs for the rail industry, and impacts on the competitive position and efficiency of interstate rail freight operations. The Synergies report estimates the cost of inter-jurisdictional compliance as being around $10 million per annum. Respondents to the Synergies survey believed that between 5 and 75% of the current compliance costs incurred are avoidable.

In the example quoted earlier at 4.1.4 of needing significant additional material to address accreditation requirements in states other than the home or principal regulator, the operator said:

> "*Cost therefore fell between the minimum possible (mutual recognition) and the maximum of needing to address each State completely separately.*"[37]

Despite serious efforts by regulators to harmonise audit processes across jurisdictions, auditing is still subject to local requirements. Industry has suggested that a single audit could reduce the resources required substantially; however government stakeholders suggested industry underestimates the resources that would still be required.

Industry has also offered examples of additional costs in relation to auditing and to reporting incident data. Annual report requirements vary across jurisdictions, although one regulator has noted there are now agreed guidelines on the content of an annual report. One operator with three accreditations suggested each regulator still required the annual report on different dates.

> "*Accordingly, national operators (…) are faced with differing reporting requirements, which impose unnecessary costs to comply (…).*"[38]

Stakeholders have claimed that inconsistencies of this kind raise substantial uncertainty and pose a number of disadvantages onto interstate operators, such as:

- additional costs arising from duplicated efforts. Inconsistent regulatory practices require additional resources to comply with various accreditation and auditing processes. One operator notes that:

[36] Reason, p165
[37] Synergies Economic Consulting 2008, p.38
[38] Synergies Economic Consulting 2008, p.41

*"(…) operational staff [of the regulator] try to influence/manage outcomes which they believe should happen[,] without any legislative basis. (…) An example would be conditions placed on a variation to an accreditation which cost the organisation $250,000 to prove again what had already been communicated to the regulator."* [39]

- additional costs associated with tailoring training and auditing to each jurisdiction;
- opportunity costs associated with multiple dealings. Industry operators commented that they face constraints implementing new technologies that hold promise for improving productivity; and
- additional administrative requirements for dealing with each regulator may distort competition within the above rail freight market, by discouraging operators from expanding into other jurisdictions.

### 4.2.2 Modal competition and comparisons

Some industry stakeholders argue the rail industry's competitiveness is constrained by a lack of uniformity, inconsistent approaches to accreditation, audit and compliance, and the requirement for interstate operators to deal with multiple regulators. Other transport modes and sectors have national regulatory and institutional arrangements governing safety, thereby potentially placing rail at a competitive disadvantage. This is discussed further at 5.1.

Following an international comparison, the Glenbrook and Waterfall Special Commissions of Inquiry stated that:

"*In view of the mistakes of the rail industry in the past, such as different gauges, the time has also come for national regulation of rail operations. Such an approach is consistent with the one adopted in the United States of America and Canada, and has been demonstrated to be effective and in the public interest.*"[40]

Operators have claimed that the additional regulatory costs arising from the inconsistencies associated with the current framework impact on rail industry's competitiveness:

*"Most customers are reluctant to accept the additional time taken for projects to be finalised due to regulator compliance complications. In some cases customers have looked at alternative modes of transport.*"[41]

It is also disputed whether a multi-jurisdictional regime fits with the broader National Transport Policy Framework principle of a national market for transport which includes efficient pricing and regulation across all modes to deliver the right balance of mode choices and investment.[42]

### 4.2.3 Future growth in transportation

Forecasts show that Australia's freight transport task will double from 2000 to 2020[43]. Urban passenger rail networks have also seen unprecedented growth in passenger numbers

[39] Synergies Economic Consulting 2008, p.40
[40] McInerney 2005, p.xxxix
[41] Synergies Economic Consulting, p. 35
[42] NTC 2008, p.1
[43] National Transport Commission (2007)

in recent years. To respond to this growth it is necessary for all transport modes to operate as efficiently as possible. It could be considered the current rail regulatory arrangements do not cater for the anticipated growth in the freight and passenger rail task.

Governments have also made various commitment to support a modal shift in the public interest. For example, in Victoria the government has set a target to increase the proportion of freight transported to and from ports by rail from 10 percent to 30 percent by 2010. Similarly, the New South Wales government has set a rail share target of 40 percent.

An inevitable impact of this growth will be increased demand on the regulator for ongoing monitoring and auditing of safety management systems. This is likely to impact the efficient deployment of resources given current skill shortages and increasing competition from other transport modes.

According to industry operators, current regulatory inefficiencies cause concern about delays and disincentives to investment, increased cost of decision-making[44] and rail's competitiveness with other modes.

### *4.2.4 Jurisdictional costs*

Currently there are various cost-recovery arrangements which are supplemented by public funding in order to maintain each jurisdiction's rail safety regulation. This allows for a duplication of public funding. For example in the case of change, significant resources can be devoted to regulatory consideration of changes to an operator's safety arrangements in up to seven jurisdictions; the process is effectively undertaken up to seven times. In assessing the current regulatory arrangement, it should be considered to what extent administrative costs related to duplicated efforts may be reduced as a result of economies of scale. The Australasian Railway Association has suggested, "*the Australian state system of regulation appears far less economic than the national systems of Britain and the US.*"[45]

**Please comment on the problems put forward for rail safety regulation.**

The problems described were identified during early consultation and research. Do you think there are more or less problems than those stated, and why?

Please comment on the significance of each of the individual problems. Can you provide data to illustrate your answer?

Please comment on the significance of the problem overall. Can you provide data to illustrate your answer?

To what extent do you believe implementation of legislation in each jurisdiction based on the model Rail Safety Bill will address these problems?

[44] Synergies, p7
[45] ARA 2008, p.7

## 4.3 Concluding comments and analysis

The previous section discussed a range of issues identified during the preparation of this draft regulatory impact statement.

The legislative reforms will go some way to addressing some of the issues discussed. However not all the issues are ones which the national model legislation set out to address. Separate issues with institutional arrangements were to be the subject of further, separate work as part of a Review of Institutional Arrangements for Regulation of Rail Safety (Phase B). The early recognition of the need for a review of institutional arrangements is recognition that best practice regulatory frameworks comprise a number of factors, including but not limited to harmonised legislation.

While it could be argued that individually, each of the problems raised thus far are not insurmountable for a rail operator, when considered cumulatively, there are substantial regulatory burdens being placed on some industry operators. To reduce this burden, the options presented later in this draft regulatory impact statement aim to outline ways to address not only the issues of concern for industry, but to streamline the implementation of appropriate measures by governments to address the imperative safety concerns.

The Synergies report, sponsored by the Australasian Railway Association, provides an estimate that the cost of rail safety regulation to industry is $23 million per annum in compliance costs, which is scaled up to approximately $42 million when whole of industry estimates are factored in.[46] These aggregate costs appear low when considering the annual turnover of the rail industry, estimated to be over $8 billion.[47]

Despite this, the financial savings attributable to the implementation of a single national regulator, through improved efficiency and avoidable cost elimination, would still represent material net benefits in Net Present Value terms.[48] Operators would share in the savings from reduced costs of inter-jurisdictional compliance, allowing for the redirection of resources to operational safety activities.

The rail industry goes on to mention indirect inefficiency costs of regulation, but there is extreme difficulty in measuring the impact of this on the industry as a whole. However, it is important to note that if any estimation of such costs were included into the model, there would have been no effect on the relative order (based on net present value magnitude) of the various options considered. This is due to any move from the status quo to either an enhanced state-based approach or a national approach eliminating more indirect efficiency costs through improvements to the efficiency of the regulatory function.

The perceived reduced costs come from a reduction in the multi-jurisdiction compliance requirements for those operators who operate in more than one state, currently around 37 per cent of the commercial industry. These costs could be significantly reduced or removed in the event of the regulatory streamlining proposed in Options 3 and 4.

The Synergies report also makes reference to “significant” avoidable costs as identified by operators, ranging from 5% - 75%, some of which relate to duplicated functions that are inherently necessary under the status quo setup. Through a reverse engineering exercise, these avoidable costs, covering administration, auditing and review of home accreditation, are estimated at approximately $5.1m (grossed up), with a further $1.3 million avoidable

[46] p.5
[47] http://www.austrade.gov.au/Railways-Overview/default.aspx
[48] Synergies 2008, p.5

across the collection and publishing of information function. Neither of these have been considered within the model due to uncertainty about their make-up; hence it is likely that avoidable costs and cost elimination may in fact be understated.

While the efficiency and economic arguments outlined above are important, it is essential also to consider the potential safety benefit. Governments nationally have indicated a preference that there should be no reduction in safety for the sector, which allows the opportunity through this draft regulatory impact statement to offer opportunities to streamline the mechanisms for delivery of regulation in a practical manner. A multi-jurisdictional regime allows the opportunity for inconsistent regulatory practices, limited reform, data constraints and the inefficient deployment of expertise. What these issues have in common is that they create:

- a level of uncertainty by the operator as to what will be acceptable to all relevant regulators; and
- an opportunity for sub-standard risk assessment, decision making and consequently safety outcomes.

Following that, it could be argued qualitatively that:

- the current rail safety regulatory framework is sub-optimal because:
  - resources expended in reworking proposals for the differing demands of different regulators are resources not available for implementation or development of further safety measures;
  - delays in committing to investment due to uncertainty as to the acceptability of proposals to different regulators equate to delays in the safety benefits of that investment being realised;
  - regulators' expertise to effectively identify and assess risks and provide guidance to industry as to how a given risk or combination of risks can be reduced so far as is reasonably practicable, is not efficiently deployed.
- the current framework hinders efficiency because:
  - unilateral regulatory decisions impact on industry's compliance cost. Industry has raised its concerns about additional costs arising from duplicated efforts; and
  - the reduced predictability of regulatory outcomes impacts on industry's opportunity costs. Operators have expressed their concerns about delays to investment and increases in the costs of making investment decisions, as a result of inconsistent regulatory practices. Consequently, potential productivity gains are put on hold or, in the worst case, not pursued.

Operators have said:

> "*In addition to the costs imposed by the current multiple arrangements, the need to focus on complying with the differences between jurisdictions was seen as a*

*distraction for management, away from a preferable focus on developing a company-wide culture of preventing injury and illness.*"[49]

"*Focus of effort may be more focussed on risk mitigation if less procedural requirements did not require such heavy resourcing.*"[50]

More generally, increased costs impact on the individual operator and may reduce rail industry's competitiveness. Impeded growth in the rail sector is at odds with government commitments to improve transport safety and lower carbon emissions, which advocates argue can be achieved with increased rail use.

# 5. OPTIONS TO ADDRESS THE PROBLEM

This section examines rail safety regulation practices in other countries and safety regulation arrangements in other transport modes and sectors in Australia.

## 5.1 Practice in other modes, sectors and countries

The following discussion outlines a range of state-based and national approaches to regulation. Further information is also available in the appendices.

### *5.1.1 State-based regulation*

There are means by which to enhance the current state-based regulation of rail safety to improve safety outcomes and address industry efficiency. Stakeholder feedback indicates the Rail Safety Regulators Panel works very well, but it is inherently constrained by its governance arrangements and consequent need to use a collegiate approach to achieve consensus.

The Competent Authorities Panel model in dangerous goods has been suggested as a suitable basis for further promoting nationally consistent rail safety regulation. Dangerous goods regulations for road and rail transport are administered by each state and territory. Instances arise where, like rail safety, a matter needs to be considered by more than one jurisdiction. In this event, a panel of 'Competent Authorities' (the Competent Authority in each state is responsible for the enforcement of the dangerous goods legislation and of the technical dangerous goods code) issues approvals and variations to the existing regulations.

The Competent Authorities Panel operates as a 'clearing house' for important decisions allowing nationally consistent application of the model legislation and ensuring mutual recognition of decisions taken across jurisdictions. The panel meets quarterly and considers submissions from industry and industry associations. Submissions to the panel for either an exemption, approval or administrative determination must first be considered by the Competent Authority in the relevant state or territory to ensure that the matter is of national effect and the submission is complete and in accordance with the regulations. The secretariat for the panel is provided by the Department of Infrastructure, Transport, Regional Development and Local Government.

The panel has a number of functions including:

[49] Productivity Commission 2004, p. 21
[50] Synergies Economic Consulting 2008, p.34

- the consideration of applications and referrals in respect of determinations, approvals and exemptions to vary the operation of the Australian Dangerous Goods Code and making decisions intended to ensure the consistent national application of the Code and its implementing legislation; and

- providing advice to the Australian delegation to the UN Sub-Committee of Experts on the Transport of Dangerous Goods and nominating the technical expert to support the delegation.

Each Competent Authority of each participating state and territory is a member of the panel and is entitled to appoint a representative to participate and vote on its behalf in relation to decisions of the panel. The panel must consider all matters referred to it for advice or decision by a Competent Authority under the dangerous goods legislation, including related administrative matters. If a matter is put to a vote of the panel, the matter is approved if there is a majority. If a participating jurisdiction has more than one Competent Authority, the vote of a representative of any of those Authorities has a value of one / number of Competent Authorities. Meetings of the panel are to be convened by the Chairperson. The Chairperson of the panel is appointed by and is from among the member representatives. The term of office for a Chairperson is 2 years. The panel may publish any of its decisions, or any part of any of its decisions, that it believes it would be in the public interest to publish.

Across Australia, maritime safety is regulated by eight independent maritime safety agencies administering more than 50 pieces of legislation. The Australian Maritime Safety Authority is a statutory authority within the transport portfolio. Australian Maritime Safety Authority's primary role is in maritime safety, protection of the marine environment and maritime and aviation search and rescue services. The possibility of a single national system for maritime safety regulation, administered by the Australian Maritime Safety Authority, is currently the subject of consultation and a regulatory impact statement. Under this proposal, safety matters relating to recreational boating would remain the responsibility of the states and the Northern Territory.

### *5.1.2 National safety regulation in Australia*

Air safety is administered nationally by the Civil Aviation Safety Authority. The Civil Aviation Safety Authority was established on 6 July 1995 as an independent statutory authority. It is a body corporate separate from the Australian Government. The Civil Aviation Safety Authority's primary function is to conduct the safety regulation of civil air operations in Australia and the operation of Australian aircraft overseas. It is also required to provide comprehensive safety education and training programs, cooperate with the Australian Transport Safety Bureau, and administer certain features of Part IVA of the *Civil Aviation (Carriers' Liability) Act 1959*.

There are at least two examples of national safety regulation in other sectors – the National Offshore Petroleum Safety Authority and the Office of the Gene Technology Regulator. The National Offshore Petroleum Safety Authority is a statutory agency regulating Commonwealth, state and territory coastal waters with accountability to the relevant Ministers. The Authority has its headquarters in Perth and commenced operations on 1 January 2005. The National Offshore Petroleum Safety Authority was formed after the Australian Ministerial Council of Mineral and Petroleum Resources, comprising the Commonwealth Minister for Resources and Energy and relevant state and Northern

Territory Ministers, identified the need for a consistent national approach to safety regulation in Australia. It replaced a formerly state-based system of safety regulation.

The Office of the Gene Technology Regulator has been established within the Australian Government Department of Health and Ageing to provide administrative support to the Gene Technology Regulator in the performance of her functions under the Gene Technology Act 2000. The Gene Technology Act 2000, which came into force on 21 June 2001, introduces a national scheme for the regulation of genetically modified organisms in Australia, in order to protect the health and safety of Australians and the Australian environment.

### *5.1.3 International examples*

A variety of approaches have been taken internationally to rail safety regulation in Europe and North America.

Rail safety regulation in the United States of America is primarily developed and administered by the Federal Railroad Administration. The Federal Railroad Administration employs more than 415 Federal safety inspectors nationwide operating out of eight regional offices, as well as 160 state safety inspectors in 30 states to allow for adequate on the ground representation. State safety inspectors are subject to Federal Railroad Administration training programs to oversee consistency. In practice railway safety legislation is uniform across the country, with responsibilities listed in the Federal Railroad Administration. However, United States law permits the establishment of additional regulations by a state where the additional enforcements are necessary to reduce or eliminate local safety hazard.

The regulatory framework for railway safety in Canada encompasses the federal and provincial legislation, regulations, rules, and standards. Federal regulation applies to interprovincial or Canada-United States operations and is looked after by the Rail Safety Directorate of Transport Canada which delivers its program by means of a national headquarters and regional offices. Provincial regulation applies for railways operating entirely within a single province and is undertaken by provincial governments.

Rail safety regulation in the European Union is undertaken on a country by country basis. However, since 2004 the possibility of a harmonised European system for rail safety regulation is the subject of consideration by the European Railway Agency. The agency's main task is to provide the European Commission and the Member States with technical assistance in order to improve the interoperability of the European railway system (railway rolling stock should be able to travel across networks with a minimum of impediment) and its safety.

Rail safety regulation in the United Kingdom is administered by the Office of Rail Regulation. The Office of Rail Regulation looks after the rail system nationwide. The Office of Rail Regulation has a range of statutory powers under the Railways Act 1993. They also have concurrent jurisdiction with the Office of Fair Trading under the Competition Act 1998. In addition to safety oversight, to encourage continuous improvement in health and safety performance, compliance, respective policies and legislation; the Office of Rail Regulation enforces economic regulations for access and competition arrangements.

### *5.1.4 Discussion*

In evaluating the various regulatory environments within other transport modes, along with international rail systems, we are able to gain a valuable insight into the priorities and capabilities that may assist with the further growth of Australia's rail industry.

By assessing industries with a similar risk profile to that of rail, we are better able to examine how these comparisons are relevant to this regulatory impact statement.

One of the simplest comparisons to make is with the Australian aviation sector, which has an extremely high risk involved in operating the sector and has maintained a significant focus on safety measures through the independent national regulatory body that is the Civil Aviation Safety Authority, which includes capacity for an investigation system. Like rail, given the possible impacts on the general public in the event of an aviation incident, stringent safety management systems are a necessity.

Aviation safety has been regulated federally for more than 40 years. The most recent evaluation of air safety regulation was undertaken by the Senate Standing Committee on Rural and Regional Affairs and Transport. The committee recently completed an inquiry[51] into the administration of the Civil Aviation Safety Authority and related matters. The committee recommended that:

- the Australian Government strengthen the Civil Aviation Safety Authority's governance framework and administrative capability by:
    - introducing a small board of up to five members to provide enhanced oversight and strategic direction for the Civil Aviation Safety Authority; and
    - undertaking a review of the Civil Aviation Safety Authority's funding arrangements to ensure it is equipped to deal with new regulatory challenges.
- the Civil Aviation Safety Authority's regulatory reform program be brought to a conclusion as quickly as possible to provide certainty to industry and to ensure the Civil Aviation Safety Authority and industry are ready to address future safety challenges.
- the Australian National Audit Office audit the Civil Aviation Safety Authority's implementation and administration of its safety management systems approach.

The maritime sector is also in a transitional phase with the management of its safety regulation and investigation systems. While there is considerably less risk involved, particularly for passenger movement, in this sector there are some comparisons to be made with rail. Maritime incidents more generally have a larger impact on the environment; the sector requires significant guidelines for vessel maintenance and a substantial port infrastructure network around the country that must be linked with road and rail networks to ensure efficient operation of commodity movement. These measures assist in ensuring the safety of the personnel working in the industry and the protection of cargo and the environment.

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[51] The inquiry report is at http://www.aph.gov.au/Senate/committee/rrat_ctte/casa/report/index.htm

Non-transport sectors such as the petroleum extraction industry also operate with highly dangerous commodities that require precise and specific safety management systems to ensure the safety of the personnel manufacturing and transporting the commodity. This sector, like rail, has a significant infrastructure requirement in order to refine and transport the output, which places significant pressures on maintaining a consistent level of safety regulation for the benefit of sector employees and the general public. In creating the independent National Offshore Petroleum Safety Authority it was considered that providing a single, national regulatory system would ensure consistency and aim to provide an improvement in safety outcomes.

The safety regulation of gene technology to manage the effects of genetically modified materials being consumed by the general public is also an appropriate system with which to compare the rail industry. The Gene Technology Regulator provides a nationally consistent guideline for the management of genetically modified commodities being imported, created and consumed in Australia. In making this comparison, there is a considerable link between the governance arrangements required for the possibility of any single, national rail regulation and investigation framework and the management of gene technology. Like rail with the management of occupational health and safety, the Gene Technology Regulator is required to incorporate various aspects of other sectors in the management of its regulation and therefore can provide valuable insights into the establishment of any single, national framework.

Importantly, it is appropriate to note that each of these organisations is independent of government and has various arrangements for recovering the costs of their operation. More detailed information including governance and funding arrangements on these comparisons can be found in the appendices.

In comparing the Australian rail industry with that of its international counterparts, we are able to glean important information from the approach taken in countries that have a similar landscape and government processes.

The regulatory frameworks in the European Union, the United Kingdom, the United States and Canada deliver specifically for an industry that operates across jurisdictional borders. The international comparison shows that governments have acknowledged the potential of cross-border impediments as inconsistencies, and shaped their regulation and investigation approaches accordingly. Although these countries address interoperability in various ways, their regulatory frameworks demonstrate certain commonalities:

- to provide for rail safety regulation in a consistent manner for those operators active in more than one jurisdiction;
- while ensuring adequate on the ground representation to allow for responsiveness and accessibility of the regulator and the investigator.

It should be noted that the efforts currently undertaken in the European Union are a means to provide commonality. That is, there appears to be widespread acknowledgement of the significance of consistent regulation as a means to facilitate growth; however a single regulatory approach has yet to be developed. Given the vast differences in Europe's regulatory landscape, European Railway Agency's task is challenging. As far as Australia is concerned, it is important to monitor the events unfolding in the European Union as its system is reasonably similar only on a much larger scale and Australian can capitalise on its experiences.

**Reader comments invited**

Additional commentary on the success of these state-based and national approaches to regulation would be a valuable addition to the draft regulatory impact statement. Readers with knowledge of academic, public policy or industry commentary on the success of these approaches are welcome to suggest such sources.

## 5.2 Options for rail safety regulation

Transport Ministers directed the National Transport Commission to prepare a regulatory impact statement for all viable options. The preceding analysis demonstrates that conceptually, the viable options for a single, national framework are to significantly enhance current state-based arrangements or adopt a national regulatory approach.

Outlined in section 5.2.2 are the viable options that have been identified for a rail safety regulatory framework, ranging from the current status quo to a single national rail safety regulator. Section 5.3 discusses non-viable options.

### *5.2.1 Versions of the status quo*

It is necessary to describe two versions of the status quo in rail safety regulation. States and the Northern Territory are currently working towards a COAG deadline for implementation of rail safety legislation based on the model rail safety Bill. The COAG deadline is December 2008.

To date, Victoria and South Australia have passed legislation based on the model Rail Safety Bill. New South Wales legislation is before the Parliament in November. Other states are aiming for the COAG deadline, with Tasmania having an extension until late 2009.

**Table 1. Options 1 and 2 – the status quo**

| | Status quo: Option 1 | Enhanced status quo or status quo (+): Option 2 |
|---|---|---|
| **Number of regulators** | **Seven regulators** | **Seven regulators** |
| **Legislation** | Various rail safety Acts from 1994 to 2008<br>Not all jurisdictions passed legislation based on National Model Rail Safety Bill | All jurisdictions with legislation based on **National Model Rail Safety Bill**<br>**Some variations** between states remain |
| **Coverage of industry by regulatory activities** | All accredited operators, including passenger, freight, mining and coal, tourist and heritage and below rail operators | *As per option 1* |
| **Resourcing (staff)** | Resourced to current levels | All jurisdictions **fully resourced** to administer legislation based on the national model Rail Safety Bill |
| **Funding** | Current levels | Current levels or as otherwise determined by funding agencies and cost-recovery arrangements |
| **Data** | Collected by states and the Northern Territory, assisted by the Rail Safety Regulators Panel and reported by the Australian Transport Safety Bureau | *As per Option 1* |
| **Guidance materials** | Guidance material available | All jurisdictions using **national guidelines and standards**: guidelines are provided under the model Rail Safety Bill and do not extend, add to or modify legislative obligations contained in the model Rail Safety Bill[52] |
| **Inter-jurisdictional arrangements** | Rail Safety Regulators Panel<br>Memoranda of Understanding between jurisdictions<br>Principal regulator model in place of mutual recognition | *As per Option 1* |

### *5.2.2 Options for change*

Research and consultation reveals that there are two main options for a single, national rail safety regulator framework: retain and significantly enhance the state-based regulation of rail safety, or establish a national regulatory body. These two options are illustrated following:

[52]Examples of guidelines include the national guidelines for accreditation of rail transport operators, national guideline for the requirements of a rail safety management system and the national guidelines for uniform administration of accreditation.

**Table 2. Options 3 and 4**

| | Enhanced state-based regulation: Option 3 (previously described as enhanced status quo (++)) | Single national regulator: Option 4 |
|---|---|---|
| **Number of regulators** | **Seven regulators** | **One regulator** with a head office and a local presence to reinforce the national outlook of a single national regulator, as well as adequately cater for local responsiveness |
| **Legislation** | All jurisdictions with legislation based on **National Model Rail Safety Bill**<br>**Variations** between states minimised[53] | Administering one piece of legislation based on the **National Model Rail Safety Bill** |
| **Coverage of industry by regulatory activities** | *As per option 1* | *As per option 1* |
| **Governance** | All regulators would ideally be **independent** of Ministers, funding bodies, operators, policy setters and investigators<br>Regulators would be accountable to a decision making panel, to provide for a decision making mechanism, in situations where consensus can not be achieved or is taking too much time<br>This decision making panel could be modelled on the Competent Authorities Panel in dangerous goods regulation | The regulator would have one Board, one chief executive officer and report to the Australian Transport Council. It would also be accountable and responsive to individual Ministers<br>The regulator would be independent of Ministers, funding bodies, operators, policy setters and investigators |
| **Inter-jurisdictional arrangements** | Enhanced Rail Safety Regulators Panel with decision-making abilities akin to those of the Competent Authorities Panel in dangerous goods regulation<br>Memoranda of Understanding between states and the Northern Territory | *Not relevant*<br>A single regulator would have **one set of processes** and all activities in the regulatory portfolio would be undertaken in accordance with the one set of processes |
| **Resourcing (staff)** | All jurisdictions **fully resourced**: regulators should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages | **Fully resourced:** the regulator should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages<br>A single regulator would also promote one culture for regulatory staff throughout Australia |
| **Funding** | Current levels or as otherwise determined by funding agencies and cost-recovery arrangements | **Additional investment** would be required to set up a single national rail safety regulator, facilitate the transition process and to reinforce best practice regulation |

[53]Some form of statutory oversight of legislative consistency could be introduced, for instance by enhancing the model Rail Safety Bill legislation maintenance program to identify legislative inconsistencies and work to address them.

| | Enhanced state-based regulation: Option 3 (previously described as enhanced status quo (++)) | Single national regulator: Option 4 |
|---|---|---|
| **Data** | Collected by states and the Northern Territory, assisted by the Rail Safety Regulators Panel and reported by the Australian Transport Safety Bureau | Collected by regulator and reported by the regulator or the Australian Transport Safety Bureau |
| **Guidance materials** | All jurisdictions using **national guidelines and standards**: guidelines are provided under the model Rail Safety Bill and do not extend, add to or modify legislative obligations contained in the model Rail Safety Bill | Regulator publishes **national guidelines** |
| **Process improvements** | Full mutual recognition: adequate mutual recognition across all jurisdictions for rail operators seeking accreditation in one or more jurisdictions.<br>If effective, mutual recognition would provide a one-stop-shop for operators. | A single regulator would have **one set of processes** and consequently process improvements would be simpler. |

**Note**: there are a number of legal and governance issues to be addressed in implementing a model for the delivery of a single, national regulator. These issues will be addressed in section 14.

### *5.2.3 How far do these options go towards addressing the problems and meeting the principles of good rail safety regulation*

The figure below contains a qualitative assessment of the four options against the principles for good rail safety regulation set out earlier in 2. An explanation of the symbols used can be found below the table.

| | Status quo | Enhanced status quo | Enhanced state-based regulation | Single national rail safety regulator |
|---|---|---|---|---|
| | **Option 1** | **Option 2** | **Option 3** | **Option 4** |
| Transparency | +/- | + | + | + |
| Independence | - | +/- | +/- | + |
| Strong relationship with ministers responsible for rail safety | + | + | + | + |
| Ministerial capacity to refer | + | + | + | + |
| Consistency of operation | - | +/- | +/- | + |
| Responsiveness | +/- | +/- | +/- | + |
| Sufficient capacity and expertise | +/- | + | + | + |
| Efficiency | +/- | +/- | +/- | + |
| Clear explanation of role and function | +/- | +/- | + | + |

| | Status quo | Enhanced status quo | Enhanced state-based regulation | Single national rail safety regulator |
|---|---|---|---|---|
| | **Option 1** | **Option 2** | **Option 3** | **Option 4** |
| Sound regulatory practices | +/- | +/- | + | + |
| Risk-based regulation | - | - | +/- | + |
| Co-regulation | +/- | +/- | + | + |
| **Total** | **+/--** | **+/-** | **+** | **++** |

**Figure 1. An assessment of the options against the principles for sound practice regulation**

**Legend**

**-** **principle insufficiently met or improved**

**+/-** **principle sufficiently met in some states without achieving a level of consistent improvement in all jurisdictions**

**+** **principle sufficiently met and/or improved**

The figure above illustrates that options 1 and 2 do not sufficiently address the associated principles required for ensuring an optimal rail safety regulatory framework for Australia. In some jurisdictions these principles are largely addressed, due to the creation of independent regulators and the introduction of the national model legislation. However this is not the case uniformly across Australia, and questions of institutional best practice have not yet been formally addressed as part of the rail safety reform package.

Figure 1 above also illustrates that enhancing the current state-based system of rail safety regulation or moving to a single regulator would be more successful at a achieving an optimal single, national rail safety regulatory framework in Australia.

Similarly, a qualitative analysis of the options against the problems identified earlier can be undertaken. A more detailed discussion of this assessment can be found in the appendices. Figure 2 is the outline of the problems with each option's effectiveness ranked out of 5.

| Problem | Status quo | | Enhanced status quo | | Enhanced state-based regulation | | Single national rail safety regulator | | Overall Impact |
|---|---|---|---|---|---|---|---|---|---|
| Independence | 1 | Not all independent | 2 | No requirement | 4 | Stipulates independence | 5 | Fully independent | Independence encourages frank and fearless advice to address problems |
| Transparency | 1 | No consistent arrangements | 2 | Consistent legislation and added resourcing | 3 | Further mutual recognition and statutory oversight | 5 | Single body principles and one set of transparency processes | Transparency precipitates open and accountable service delivery |
| Intervention | 1 | Not consistent | 2 | Consistent legislation | 2 | One-stop-shop could monitor intervention needs | 5 | Consolidated level of intervention | Consistent levels of intervention allow for industry certainty |
| Resourcing | 2 | Resourced on perceived need | 3 | Fully resourced | 3.5 | Fully resourced with statutory oversight | 4 | Resources combined in one body with a state based delivery capacity | Adequate resources allow opportunity for research and implementation of the best available services |
| Reform | 1 | Collaborative process available but limited in effect | 1 | No mechanism for reform | 3 | Improved governance and decision making mechanism | 5 | Single set of processes allows for more efficient change and improvement | Allowing consistent opportunity for reform delivers the most contemporary services |
| Knowledge sharing | 1.5 | No consistent arrangements | 2 | Additional resources may assist, but no formal arrangements | 4 | Governance improvements streamline information management | 5 | Knowledge management centralised for global access | An ability to learn from similar situations |
| Expertise | 1 | Requires duplication of comparative skill set | 1.5 | Full resourcing assists | 2 | Independence and statutory oversight | 4 | Provides an opportunity for colleagues to develop professionally by learning from each other's experience | Consolidation of expertise can lead to a more efficient system of knowledge management |
| Data collection and analysis | 2 | Data management strategy in place | 2 | Full resourcing assists | 3 | One-stop-shop for information management | 4 | Dedicated mechanism for data management | Consolidated data collection provides consistent opportunity to consider how the system is working |
| Jurisdictional cost | 2 | Long-standing cost recovery arrangements in place | 2 | Full resourcing may change cost recovery requirement | 2 | Full resourcing and enhanced governance may change cost recovery requirement | 3 | Consolidates current cost obligation arrangements, however additional funding may be required at commencement | A reduction in costs is beneficial as long as safety is not compromised |
| Industry cost | 1.5 | Increased compliance costs when dealing with multiple jurisdictions | 2 | Improved but still has variations in each jurisdiction of operation | 3 | Uniform accreditation and mutual recognition may assist cost reduction | 4 | Addresses duplication of safety management system implementation cost and contributes to investment stability | Industry requires investment certainty and where safety is not compromised, a cost reduction would be beneficial |
| Modal competition | 0.5 | Costs inhibit competitiveness | 1.5 | Using national guidelines and standards provides opportunities | 2 | Reform mechanism may assist in identifying competitive opportunities | 3 | More efficient delivery of identified change requirements assisting to address anti-competitive forces | Being one of four major modes of transport, rail needs to maintain its competitiveness |
| Future growth | 0.5 | Limited | 1.5 | Enhances uniformity but has limited ability to deal efficiently with change | 2 | Process, governance and statutory improvements may address growth | 3 | Manages blockages to growth at a single point and contributes to overhaul efficiency of sector | Considerations for future growth need to be developed to avoid the alternative |

**Figure 2. Scores are ranked out 5 on the likely effectiveness of the options in addressing the associated problem**

| **Legend** | | |
|---|---|---|
| **1** | **through to** | **5** |
| **Current arrangements not effectively addressing the problem** | | **Proposed arrangement effectively addresses the problem** |

It is important to note that when considering the benefits of each of these options that most, if not all, of the improvement measures proposed in each are then included in the following option, as outlined in Tables 1 and 2. For example, Table 1 outlines how changing the status quo to utilise the model Rail Safety Bill as the legislative base for jurisdictions then becomes enhanced status quo or option 2.

Similarly, a qualitative analysis of the options against the problems identified earlier can be undertaken. Figure 2 outlines the problems with each option's effectiveness ranked out of 5. Following an evaluation of Figure 2 it is apparent that a single, national rail safety regulator would potentially bring the greatest benefits to a single national rail safety framework, but an evaluation of the costs of all options is also necessary. The cost benefit analysis is at section 6. A more detailed discussion of the assessment in Figure 2 can be found in the appendices.

## 5.3 What alternative options were considered?

The three broadly conceptual options for rail safety regulation: government control, co-regulation and self-regulation, were previously examined in the regulatory impact statement for the model Rail Safety Bill. There was a very high level of support for the co-regulatory model, which regulatory theory suggests is likely to be appropriate where very complex regulatory tasks must be completed and there is a need to draw on industry expertise. Since that time some stakeholders have tempered their support for the co-regulatory model but most in industry and government still support it.

Consideration was given to part-regulation, which would separate parts of the rail sector to be regulated by a national body, leaving the remainder of the rail industry to be regulated by other, presumably state-based regulators. Suggestions were made that this separation of regulated entities could be undertaken on the basis of the type of rail activity (passenger and freight rail could be regulated separately) or geography (inter-state activity and inter-state activity could be regulated separately).

The Canadian model of national and state-based rail safety regulation is a useful case study here. The federal agency Transport Canada has overall responsibility for rail safety regulation. Railways have traditionally been viewed as an area of federal jurisdiction, but the sale or lease of track by the major carriers in the 1990s led to the creation of many short lines that fall within provincial jurisdiction. Provincial (state) rail safety regulation applies for railways operating entirely within a single province. Provincial governments are the regulators. Provinces with railways under their jurisdiction have taken steps to link their regimes to the federal Rail Safety Act.

A recent review of the Canadian rail safety arrangements noted that differences in regulation and enforcement among provinces, and between the provincial and federal regimes are inevitable.[54] Provinces in Canada had adopted a variety of approaches to the regulation of intra-provincial railways, ranging from adoption of the federal legislative

[54] Transport Canada, p43

regime through to the development of provincial legislation without reference to the federal legislation. Transport Canada inspectors undertake inspections and provincial officers undertake enforcement.

Booz Allen Hamilton commented in 1999 that the interfaces between the urban and freight networks vary between cities. The networks in Perth and Adelaide are largely separate, in contrast to the Sydney conurbation, where there are serious interface issues and congestion. As a consequence, the Sydney urban network and to a lesser degree those in Melbourne and Brisbane, have their own significance in the issue of rail safety arrangements. The east coast of Australia has a heavy concentration of rail activity – New South Wales and Victoria have the highest passenger train kilometres travelled and New South Wales and Queensland have the highest freight train kilometres travelled.[55]

Any attempt to separately regulate different types or locations of activity would create new or additional interfaces for regulators and regulated entities. There is no neat way to carve up the regulation of Australia's railways so that multiple entities can be responsible for safety, without the creation of interface issues, and therefore potential safety hazards.

The suggestion of an additional body to regulate multi-jurisdictional operators was widely criticised by stakeholders during the consultation process. Given the complex nature of the industry, the result would be multiple operators potentially regulated by multiple regulators but using the same infrastructure, and this was not deemed an appropriate safety solution.

NTC also examined the possibility of subsuming rail safety into occupational health and safety regulation, currently imposed by each of the states and territory. This would assign statutory responsibility for general duty breaches to occupational health and safety and leave additional rail specific responsibilities with a regulator, which was identified in the model Rail Safety Bill. It was considered inappropriate to combine rail safety regulation with that of occupational health and safety as rail has specific safety measures that are fundamental to its operation, including reassuring the general public of their safety while using rail, comprehending the nature of the infrastructure and maintaining engineering standards for this unique industry.

The concept of a single body that would cover both regulation and investigation was ruled out because of the obvious conflict of interests.

# 6. COST BENEFIT ANALYSIS

This section discusses the costs and benefits of the options for a single, national rail safety regulatory framework. The analysis is qualitative and quantitative.

## 6.1 Methodology and limitations

NTC engaged Booz & Company to provide an independent cost-benefit analysis for this draft regulatory impact statement. Booz & Company attended the consultation meetings with stakeholders and sought data from governments, industry operators and industry associations.

[55] Australian Transport Safety Bureau, 2008, pp15-16

Early on it became apparent the analysis would have a substantial qualitative component. Governments were forthcoming with data, which enabled Booz & Company to determine the costs to government of rail safety regulation. Industry associations and industry operators provided much less data. This appears to be the result of the difficulties in quantifying the additional compliance burden from dealing with multiple regulators.

Earlier in 2008 the railway industry body, the Australasian Railways Association, commissioned Synergies Economic Consulting to report on the cost of rail safety regulation in Australia. Synergies' report notes that there are both conceptual and significant practical difficulties in measuring the direct costs of rail safety regulation. Measuring the indirect costs is even more difficult.

Synergies used a survey format, which focussed on collecting information which could be used to construct an estimate of direct costs. Respondents were requested to provide significant supporting information to contextualise the data and examples of compliance costs. Respondents were also asked to provide qualitative information on the economic efficiency costs of rail safety regulation, given that these costs, in most industries, are commonly believed to be substantially greater than compliance costs. Synergies received eight survey responses from twenty-two sent out. The eight respondents included most of the major above and below rail operators in Australia. Responses include operators focused on urban passenger transport, below rail operators providing infrastructure services, and above rail operators providing freight transport services.

Booz & Company undertook a similar exercise over a much shorter period of time. On the basis of the data provided by industry operators, Booz & Company did not adjudge the Synergies conclusion about the costs of regulation.

Booz & Company's approach to the quantitative task was:

- to establish the costs to government of rail safety regulation;
- to estimate (or evaluate) the costs to industry of rail safety regulation; and
- to calculate the net present value of the options for change.

In evaluating the qualitative benefits, Booz & Company attended stakeholder consultation meetings with a range of government and industry stakeholders and the Rail, Tram and Bus Union. Booz & Company also undertake a literature search to inform the qualitative analysis. The questions NTC and Booz & Company used to source data from stakeholders are included in the appendices.

## 6.2 Qualitative analysis

Booz & Company identified a number of issues that would potentially benefit from the options for a single, national rail safety regulatory framework. Those issues include:

- a single national legislative framework;
- local operating environment focus;
- improved safety performance;
- scale benefits;
- risk-based regulation;
- data gathering and analysis;

- regulatory performance; and
- regulator decision-making time.

These issues are discussed in sections 6.2.1 to 6.2.9.

### *6.2.1 Single national legislative framework*

The argument for regulatory consistency is strongly advocated by the industry and operators. It is also consistent with the principles set out earlier. Consistency would provide certainty of the regulatory environment, allowing operators to focus on having a single set of procedures in place, rather than having to vary these procedures to meet the requirements of several different regulators. Consistency is also a likely benefit for regulators; however regulators expressed concern as to what that legislative interpretation might be.

The benefits of a nationally consistent legislative framework vary across the spectrum of framework options. It is evident that these benefits would only be realised where the structure for complete consistency of regulatory interpretation occurs, and this has not been achieved under the present model. Moreover there appear to be significant opportunities for variation from the national model legislation, in all cases other than the single national rail safety regulator.

The consultation undertaken clearly identified that the greatest regulatory barrier, from an industry perspective, is having to deal with up to seven different sets of legislation (currently) and with up to seven different interpretations of what the legislation means.[56] The industry has a clear expectation that this problem will not disappear because the national model legislation is adopted, and that the different regulatory interpretations are as great an issue as the different legislation. Some of the local variations are claimed to dramatically change the impact of the legislation, as per the example below. The full extent of the effect these variations will have are still not clear and will not become clear until the legislation is passed in all jurisdictions. However, it is noted that in New South Wales a major concern of the industry, a variation to the "general duties" provision, appears to have been removed from the bill as put to Parliament.[57]

An example of local variations is the definition of what constitutes rail safety work in Victoria. The definition in the Victorian legislation provides at s.7 that rail safety work includes at (ca) "loading or unloading rolling stock". The insertion of these terms is a variation on the national model bill. This variation, according to one operator, means that the addition to the definition of rail safety work would, if reproduced nationally, capture an additional 80,000 people, some of whom work in seasonal industries such as grain and may do as little as two weeks rail related work per year, and others who have no train operations exposure such as forklift operators confined to loading platforms. It was argued that this imposes a cost on industry, and delivers no improved safety outcome.

**(S. 7(ca) inserted by No. 69/2007 s. 55.)**

**Figure 3. Variation from the model Rail Safety Bill**

[56] It should be noted that the New South Wales Rail Safety Bill was introduced into Parliament in September 2008 by the Hon D Campbell, Minister for Transport.
[57] ibid

Overall, the assessment can be summarised as:

- While there are seven different regulatory interpretations applying for all rail safety issues, the full benefits of national consistency of legislation will not be realised.
- There may be some improvements to rail safety, and over time there may be increases in consistency, however the institutional arrangements prevent true consistency of legislative interpretation and regulation.

Consistent with this, it is anticipated that more of the benefits of the national model bill will be achieved as each step is taken towards a single national regulator. The last step, from the enhanced state-based regulation option to the single regulator, is the largest step because it will provide fundamental institutional change as a means to this end.

Tempering the consistency arguments supporting the option of a single national regulator is the risk that even a national regulator's ability to achieve efficiency could be limited by local variations on the Bill.

On balance, the benefits of the single model legislation would best be realised under a single national regulator. Incremental benefits will be realised with the intermediate options, but the greatest benefits will be derived from having one consistent interpretation of the national model legislation when it is enacted.

### *6.2.2 Cultural and behavioural benefits*

In addition to the expected benefits of consistency of regulator behaviour there may be behavioural or cultural changes to rail safety that must be considered in relation to the options.

These benefits can best be described in terms of rail safety industry and regulator culture. Over recent years regulators have noticed an increase in the "maturity" of the safety culture of the rail industry, due in no small part to the efforts of regulators and a recognisance within the industry of the theory that good safety practices make good business sense.

Safety culture is well defined on the Public Transport Safety Victoria (PTSV) website. Here it is stated that:

> "*Safety culture can be broadly described as the underlying values within an organisation that affect the beliefs and attitudes of its members and guides their safety behaviours. It is "the way things are done around here" with respect to safety.*
>
> *An organisation with a poor safety culture will have an increased likelihood of experiencing accidents compared with, for example, an organisation whose leadership and staff hold shared beliefs about the importance of safety.*
>
> *Safety culture has been implicated in a number of large scale organisational accidents both in Australia and overseas. In recognition of the importance of safety culture, the Rail Safety Regulations 2006 include a requirement for*

*accredited rail operators to include in their safety management system methods to promote and maintain a positive safety culture.*"[58]

From consultation with industry and regulators there appears to be a high degree of acceptance that the "culture" in relation to safety is improving in the Australian rail industry. This is borne out by the improvement to the safety statistics discussed earlier. Therefore it is argued that a degree of culture or behavioural benefit will be realised under each of the options being considered.

There is a likelihood that these benefits will continue to improve as time goes on. There is also potential for any movements along the spectrum toward a single national regulator to undermine some of these benefits, at least while a single national regulator is being established. It is most likely though, that over the period being considered by this analysis that the benefits to safety culture of industry, and the achievement of a consistent regulatory culture, would be greater from a single national regulator than under the status quo.

It is argued that these benefits will be realised through the increased scope and coverage of a properly resourced regulator in which staff work within one system and set of processes, with a focus on education and development assistance to the industry, and regulation that provides assurance in relation to safety culture.

### *6.2.3 Local operating environment focus*

Having knowledge of and a focus on the local rail operating environment is an important principle which includes the principles of relationship with and access to local Ministers. During consultation, an issue regularly raised (primarily by regulators and government representatives) was the ability of regulators to ensure that a local focus on rail safety was retained, regardless of the option.

The concerns expressed relate to state government accountability for the safety of the rail system within their jurisdiction. Currently, whilst performing independent functions, regulators are often asked for advice on rail safety issues by governments. State ministers are acutely concerned about rail safety because of community expectations, and parliamentary and media questioning. This is exacerbated by the ownership by the states of passenger rail systems.

There exists a perception that a single, independent regulator poses a risk to a state Minister's ability to access information, and to request the regulator to review safety issues of concern. This concern may be lessened if the regulator were independent of state government funding (it is recognised that most regulators are currently independent in performing their duties). This matter will be considered closely by the NTC and other stakeholders in assessing what the governance and reporting arrangements for any new regulator might be.

The current assessment assumes that a level of accessibility for state Ministers would continue under a single regulator option, although it is also assumed that this will lessen slightly from current arrangements. This is due to the stand-alone nature of a national regulator, that is, not within a state transport agency, and through the head office and branch office arrangements that will lead to some functions being more remote than

[58] http://www.ptsv.vic.gov.au/web26/home.nsf/AllDocs/B002A5778951238CCA257336001AC8B7?OpenDocument

present for most jurisdictions. This lessening of accessibility is not expected to adversely affect the safety outcomes, as regulatory resourcing and activity would be governed by risk.

The risk-based operation of the proposed single regulator should ensure that appropriate attention is given to the operating conditions in each jurisdiction. However, this may mean less attention is given to some issues than the current position, where some regulators are claimed to be overly prescriptive in their approach.

Given the lack of definition of how a single national regulator would be structured institutionally and operationally, the assessment that the status quo and enhanced status quo provides the greatest level of accessibility could vary with changes to the governance arrangements. The current assessment is based on the concerns expressed during the consultation process.

### *6.2.4 Improved safety performance*

Given that improving rail safety outcomes is the focus of the regulatory impact statement, the safety performance benefits that could accrue under each of the options being considered is of paramount importance.

The assessment of how the safety benefits of the regulator are affected by the different options takes into account the trends to improvements in safety performance, in terms of the number of incidents over recent years. When this is considered it is likely that there will be safety benefits under each of the options. However, an assessment based on consultation is that the benefits would be greater under an appropriately resourced single regulator.

Currently, there is a trend of decreasing fatalities per million kilometres of train movement. This trend has been consistent for a number of years and will likely continue regardless of the regulatory framework in place. As has been pointed out during consultation, the nature of co-regulation and the safety responsibilities that come with rail safety accreditation mean that improvements in safety performance will always be pursued by industry as part of its standard business practices.

However, the views expressed generally were that the better the regulatory system, the greater the regulator's ability to identify and target activities of operators and track managers on a risk basis, and therefore the greater the potential to improve rail safety outcomes. This general view is reflected in the assessment that safety increases will occur under each of the options, but that the greatest chance for safety performance improvement flows from having the best method for targeting risk, which would occur under a single national regulator.

### *6.2.5 Scale benefits of a single regulator*

The scale benefits expected under a single regulator can be assessed both as a general theme and as a number of specific benefits. The benefits that could be expected from the scale of the regulator increase as the options move along the spectrum toward a single national regulator. This is considered for the regulators and for industry dealing with regulators.

Within the status quo, some scale benefits are realised through informal resource sharing arrangements. It appears that both Victoria and New South Wales undertake a more than proportionate share of tasks for the Rail Safety Regulators Panel (RSRP) on behalf of the

jurisdictions with less regulatory resources. It is likely that the same level of benefit will be achieved once the national model legislation is passed in all jurisdictions.

An increase in scale benefits is likely through the enhanced role of the decision making panel in the enhanced state-based regulation model. These benefits are greater than under the status quo options but they would not be as significant as those possible from a single regulator.

The single regulator option would provide the greatest scale benefits, as it is the only option where all regulatory duplication is removed. This means that the entire expenditure on rail safety regulation is spent on providing risk-based regulation. There is no duplication of assessment of operators, and there is no need to have multiple organisational support systems (corporate services such as human resources and information technology systems) meaning resources can be deployed more effectively to ensure positive safety outcomes (bearing in mind that Transport Ministers noted there would be no net decrease in rail safety regulation resourcing). The regulators' scale of operation would benefit from the efficiency gains made through having one, rather than multiple (not all jurisdictions have regulators with their own systems and structure outside of government departments) of corporate support systems, thereby providing increased capacity for regulatory activity.

Industry has argued that gains that could be expected would relate to efficiency of regulation. This can also be considered from the regulators' perspective. For an operator, the benefit that could be derived is through not having to duplicate the regulatory processes. If a variation to conditions was lodged in one jurisdiction and related to a process that applies across multiple states, the process of approving the variation would only have to be performed once. This reduces the time a regulator spends dealing with the same issue, allowing for a regulator to more effectively target risk from the same resources base.

From the operators' perspective, the benefit is either the direct saving of the cost duplicated compliance functions, or the diversion of these resources to other operational issues. The reduction in interfaces between regulators and operators would be greatest under a single regulator but would also exist under the enhanced state-based regulation option.

### *6.2.6 Risk-based regulation*

The discussion around the likely benefits from risk-based regulation is similar to the other scale arguments. Risk-based regulation is expected to improve as the options move along the spectrum to a single national regulator. The change would occur through the increasing cooperation or collaboration as the benefits from the national model legislation come to pass. A state regulator only has the capacity to target risk as it applies in their state. An enhanced state regulator will only slightly increase this capacity.

The ability to apply risk-based regulation would also be provided by the enhanced state-based regulation model through the decision making power of the panel, however the greatest benefits from risk-based regulatory approach would be achieved by a single regulator.

### *6.2.7 Data gathering and analysis*

The importance of data gathering and analysis was highlighted during consultation. It was the view of many stakeholders that this is a key rail safety performance measure and is something that is not done as well as it could be under the current system.

The perspective of regulators on data gathering and analysis varied across the country, although it was unified in suggesting that current processes could be improved. The improvements sought were to the categories under which the data were gathered, and the central repository for holding the data and providing the analysis. The benefits sought were, broadly speaking, a more evidence-based and informed picture of rail safety in Australia. This would facilitate a more effective risk-based regulatory operation.

While the views of the regulators was shared by operators, in terms of wanting improved data collection and analysis, the reasons and method for achieving this was different from their perspective. Operators would seek improvements to the way in which the data are collected and an alignment between the data the regulators seek and what they collect in order to manage their own risk. The perspective of the operators is that the data collected under the ONS-1 (occurrence notification) standard is an inefficiency for them, as it is collected solely for the regulators and does not inform their operational decision making.

An example provided in consultation relates to “missiles thrown at train” rather than “missiles striking train”. The data collected will vary significantly under these two measures meaning that without standardised measures it is not possible to conduct meaningful analysis of data.

The benefits sought in relation to data gathering and analysis are considered most likely to flow from a single national regulator.

### *6.2.8 Regulator performance*

One of the benefits sought is improvements to the quality of regulator performance. This relates to the ability of the regulator to apply international best practice in its operations and to use scale to improve organisational performance. The expected benefit also relates to having a level of resourcing relative to risk and consistent processes throughout their head office and regional branches.

This issue of regulator performance is contentious amongst regulators, although it is acknowledged that there are different interpretations of co-regulation. Regulators have made the point that differences in applying co-regulation are, in part, based on the safety systems maturity of the operators and networks regulated, as well as variations in legislation. The contentious nature of this highlights the difficulty faced in attempting to quantify this as a benefit.

Improved regulatory performance is expected to improve safety through the risk-based regulation model. It is anticipated that a regulator with visibility of the rail industry across the whole country, using a risk-based approach, can more effectively use the resources at its disposal to target the high risk or high probable consequence risks than what the current multiple regulators can achieve. Such an improvement in the effectiveness of regulators performance would improve safety outcomes.

The benefit identified would therefore be higher under a single regulator that the other options being considered. The single regulator is the only option with the capacity to adopt

the whole of Australia view. The rating of the other options reflects the improvements to safety performance and outcomes being achieved under the current system. It is likely that these benefits will continue to flow at the current rate from the status quo, enhanced status quo and enhanced state-based regulation options, with little discernible difference between each of these options.

The recognition that improved standards of regulatory performance is desired within the industry was borne our both by the consultation process and through the development of training course for regulators, discussed in Figure 4 below.

**Development of competencies and qualifications for rail safety regulators**

The Government Skills Australia website contains information about training for rail safety regulators. "In response to a demonstrated industry need and sponsored by the National Transport Commission, a new qualification – Diploma of Government (Rail Safety Regulation) – has been drafted and has been supported by the state Training Authorities. It has now been through holistic quality assurance and has been submitted to the NQC for endorsement."

PSP52008 Diploma of Government (Rail Safety Regulation)

Qualification descriptor

This specialist qualification covers the competencies required by rail safety regulatory staff. It has been tailored to meet the needs of authorised government enforcement officers acting under the authority of rail safety legislation. Elective units should reflect the responsibilities of the individual and the job skills required for effective performance. Where a free choice of elective units is possible in the qualification packaging rules, electives may also be drawn from other Training Packages to reflect the work context and career plans of the individual.

(see https://www.governmentskills.com.au/content/view/174/553/)

The effectiveness of this training course could be influenced by the nature of the regulatory environment. Under a single national regulator, implementing a single legislative framework the course can be designed to meet the challenges that present in that environment. In the current environment of different legislation and different regulatory interpretations these differences could pose some challenges for developing an efficient and effective training course.

Therefore it can be intuitively assessed that the benefits to formal training would be greater under a single national regulator, than in the current disparate system.

**Figure 4. Training course for rail safety regulators**

The analysis of this perceived benefit is not intended to reflect a judgment on the current performance of the regulators. It is widely reported that safety outcomes are improving in Australia under the current system, and this is represented in the analysis. What is sought is the system where the greatest benefits can be realised.

The rating of the performance of regulators by the industry is generally positive. This is shown by the industry report on regulatory performance prepared by Synergies Economic Consulting. The Synergies report indicates that the overall view of the regulators is

positive. "*Regulation was seen as reasonably transparent, accountable, communicated effectively and enforceable*."[59]

It is recognised, both from regulators and the industry, that there is uncertainty of how a single national regulator would operate, and the importance of the personnel and governance structures. Due to this uncertainty the benefits expected under the single national regulator may be contentious in the view of some stakeholders.

### *6.2.9 Regulatory decision making time*

The responsiveness of the regulator is another of the NTC's principles for a single regulator. The desire for improved responsiveness and shorter decision making time was identified during consultation. It is anticipated in the industry that as a regulator increases in scale, the processes for considering and deciding upon regulatory matters will improve. Currently, it has been claimed that there are no drivers to ensure regulators make decisions in a timely fashion. It is argued that decisions on matters such as variation of conditions of accreditation are needed by operators to allow business to operate successfully. In the current environment, the escalation pathway for disputes is extreme either through legal remedy in the courts, or legislative intervention from the government. Both of these escalation pathways are not favoured by industry as they are viewed as extreme, and in the case of legislative intervention, slow.

Therefore the benefits sought from a single national regulator are more streamlined decision making processes. Local branch offices would play the role current regulators play and would use a nationally standard review and assessment process (this would mean there is a "one size fits all" approach to matters such as variation of conditions of accreditation). In the case of a dispute between an operator and the local office there would be an inbuilt dispute escalation provision through the chief executive officer. This would provide a more streamlined manner for disputes to be resolved.

It is recognised that some of the delays to decisions being made is caused by operators not providing evidence of, or possibly not performing, appropriate research and risk assessment of the issue they are seeking change on, or approval of. In this case any improvement to the regulator's ability to assist the industry in improving the processes of risk assessment and reporting to streamline the regulatory decisions would benefit regulatory decision making – through consistency of expectations in the industry and consistency of processes. It is assumed that a single national regulator would continue the work done to educate and inform the industry that the regulators do now, and that a national regulator would improve the efficiency of providing these educative functions, leading to improved quality of applications from industry, facilitating improvements in decision making time from the regulator.

In support of the argument that a national regulator would improve decision making, an example was put forward where an operator sought to change a provision in its network rules. The change the operator seeks has been, in its view, delayed due to inefficient regulatory decision making. The operator argues that the economies of scale and internal escalation capacity provided by a single national regulator would improve safety outcomes through more timely decision making.

It has also been suggested that the current regulatory environment acts as a barrier to innovation from operators in the rail sector. The prescriptive nature of some regulators and

[59] Synergies, p8

the restrictive process for changing conditions are cited as the causes of the perceived barrier.

It is claimed by some within the rail industry that this barrier works as a disincentive to investment in improvements for rail operators, as the return on investment is diminished by the time it takes to have the changes sought approved. In some sections of the rail industry, where the competition between road and rail is close, it is argued that this places rail operators at a strategic disadvantage. This has, it is argued, led to a lack of innovation in the way rail operators work.

The Synergies report also discussed barriers to entry. The report provides an example that, "*overly restrictive regulatory practices and associated increased costs lessen the competitive advantage between road and rail. Start up operations take longer due to more restrictive conditions… and approval to operate rolling stock and infrastructure*."[60] This argument relates to the decision making time and the level of prescriptiveness that a rail safety regulator has.

It is also recognised that there is the potential for a single national regulator, if its processes are not designed to be more streamlined in their decision making, to in fact provide a slower regulatory decision making environment. It is assumed in this analysis that a single national regulator's processes and operations would minimise the risks of creating processes which are more bureaucratic, undermining the potential benefits of improvements to regulatory decision making. This assumption is based on the principles of efficiency and responsiveness (and staff expertise) for any single national regulator.

It is also acknowledged that not all barriers or perceived barriers and delays are a result of interaction between operators and regulators. It is possible that many of the delays are a result of disagreements between operators and track managers. This is supported by anecdotal evidence.

### *6.2.10 Conclusions*

The benefits and impact from the discussion above is included in the figure below. Figure 5 shows, from a qualitative perspective, that the overall expected benefits to safety are greater under the single national rail safety regulator.

| Benefits of improving the rail safety regulation framework | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Options | Expected Benefits | | | | | | | | | |
| | Full realisation of the single national regulation framework | Cultural/Behaviourb enefits | Local operating environment focus | Improved safety performance | Scale Benefits from regulator General | Specific Scale Benefits | | | Time taken in regulatory decision making | Total |
| | | | | | | Benefits from a risk based regulation system | Improved data collection and analysis | Improved Regulatory standards | | |
| Status Quo | ○ | ◑ | ● | ◑ | ◔ | ◔ | ◔ | ◑ | ◔ | ◔ |
| Status Quo + | ◔ | ◑ | ● | ◑ | ◔ | ◑ | ◑ | ◑ | ◑ | ◑ |
| Status Quo ++ | ◑ | ◑ | ◕ | ◑ | ◑ | ◑ | ◕ | ◕ | ◑ | ◑ |
| Single National Rail Safety Regulator | ● | ◕ | ◑ | ◕ | ● | ◕ | ● | ◕ | ◕ | ◕ |

**Figure 5. Qualitative benefits – regulation**

[60] p. 35

## 6.3 Quantitative analysis – introduction

### *6.3.1 Rail safety*

As part of the assessment of the problem it is important to look at the current performance of the rail industry in terms of safety. For this study Booz & Company modelled the safety incident performance of the Australian rail industry from 2001 – 2007.

This period was chosen due to the availability of consistent data for these years. An additional benefit from considering these years is that significant increases to the resources expended on rail safety occurred in these years (especially on the east coast), providing a comparison to the status quo.

It is well known that, as a result of massive competitive reform of the industry during the 1990s, the nature of rail safety regulation changed significantly, moving from self regulation to a co-regulatory model.

The benefits attributed to Australia's rail safety regulation function are difficult to quantify, as evidenced by the lack of literature that exists within the area. Studies on the costs of regulation have tended to appear more often.

In the interests of attempting to quantify all aspects of the rail safety regulation function as part of a cost benefit analysis, an approach was devised in order to quantify safety benefits of regulation.

Fundamentally, the approach is similar to that employed in the NTC's regulatory impact statement for the national Model Rail Safety Bill in 2006. Safety occurrence data from 2001 to 2007 was analysed and a trend line fitted. The trend line chosen was of the logarithmic form to reflect the reality that rail safety incident trends will be asymptotic[61] since some level of risk will inevitably remain, despite best efforts.

[61] Asymptote is a mathematical term that means a straight line which is approached more and more closely by a point moving along a curved line but which is not touched by that point however far it moves (definition taken from the Macquarie Dictionary).

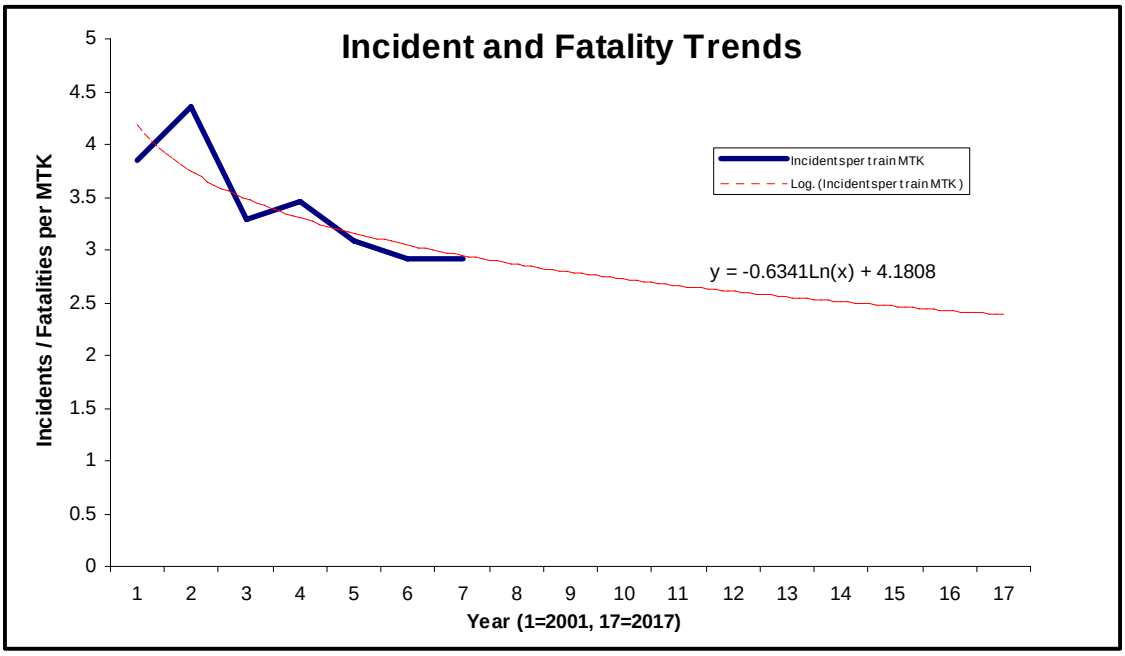


**Figure 6. Rail incident and fatality trends**

In order to determine the safety related benefits attributable to rail safety regulation under the status quo, it is necessary to establish a benchmark measure of the rail safety incident rate for comparison. Attempting to estimate the incident rate in the absence of the current regulatory setup is a speculative task.

For this purpose, the incident rate at 2001 has been taken as the base for comparison of safety improvements across all options. Using the trend line for incidents per million track kilometres, along with applying forward the 0.7% combined annual growth rate in million track kilometres over the last 7 years, the number of incidents expected in each given year can be forecast. Using this approach, the number of incidents for the year 2017 can be calculated. Given this piece of data, a combined annual growth rate (or in this instance a combined annual decline rate) can be calculated, which represents the incident pattern from 2007 to 2017. This decline rate is termed the safety improvement rate. This improvement rate is then used to determine the number of rail safety incidents expected to prevail in each year from 2008 – 2017.

The benefits are quantified on a yearly basis by subtracting the predicted incident frequency from the baselined incident frequency, and multiplying by the cost per rail safety incident (derived using the costs of rail safety incidents from the 1999 BTRE report "Rail accident costs in Australia" (report 108) inflated to 2007 figures using the appropriate consumer price index factors, then divided by the number of incidents observed during 2007).

***NOTE** – A combined annual decline rate is calculated to facilitate the application of a sensitivity analysis on the safety improvement rate. Points on the logarithmic function could also have been used to calculate the number of incidents in the forecast years, however this approach would not have allowed for a fluent sensitivity analysis due to there not existing one particular reduction rate to vary.*

### *6.3.2 Costs to industry*

The Synergies Economic Consulting report, prepared for and provided by the Australasian Railway Association, provides an estimate that the cost of rail safety regulation to industry is $23 million per annum in compliance costs, which is scaled up to approximately $42 million when whole of industry estimates are factored in.[62]

However, the Synergies estimate does not factor in accreditation fees paid by industry to regulators. These are currently estimated at approximately $11 million per annum. These costs needed to be considered on top of the Synergies estimates of $42 million, giving an approximate current cost to industry of $53 million per annum.

This cost is low when the annual turnover of the rail industry, which is estimated to be over $8 billion,[63] is considered. Despite this, the financial savings attributable to the implementation of a single national regulator, through improved efficiency and avoidable cost elimination, would still represent material net benefits in Net Present Value terms.[64]

Additionally, the Synergies report makes reference to wider and indirect inefficiency costs of regulation that are likely to exist. Given the extreme difficulty in measuring such inefficiency costs, they have not been factored into the quantitative model. However, it is important to note that if any estimation of such costs were included in the model, there would have been no effect on the relative order (based on net present value magnitude) of the various options considered. This is due to any move from status quo, to enhanced state-based regulation and finally single national regulator eliminating more indirect efficiency costs through improvements to the efficiency of the regulatory function.

#### 6.3.2.1 Elimination of costs

The eliminated costs centre on the premise that the inter-jurisdictional compliance costs identified by industry (separate to those attributed to the home accredited state) are in fact avoidable. The likelihood is that given the national approach fundamentally eliminates the inter-jurisdictional setup, the majority of these costs could potentially be reduced or eliminated.

The Synergies report also makes reference to “significant” avoidable costs as identified by operators, ranging from 5% - 75%, some of which relate to duplicated functions that are inherently necessary under the status quo setup. Through a reverse engineering exercise, these avoidable costs, covering administration, auditing and review of home accreditation, are estimated at approximately $5.1 million (grossed up), with a further $1.3 million avoidable across the collection and publishing of information function. Neither of these have been considered within the model due to uncertainty about their make-up; hence it is likely that avoidable costs and cost elimination may in fact be understated.

Avoidable costs were also identified across two more major categories; “inter-jurisdictional site visits by regulators” and “same systems inspected by other regulators”. The assumption is that these avoidable costs would fall under the category of inter-jurisdictional compliance costs of which the model eliminates a portion.

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[62] p.5
[63] http://www.austrade.gov.au/Railways-Overview/default.aspx accessed 25/09/2008
[64] Synergies 2008, p.5

A far more substantial argument relates to the social and community benefit that is derived from improving rail safety outcomes and reducing the number and severity of rail safety incidents that occur in both real and relative terms, as discussed previously.

### 6.3.3 Regulatory resourcing

As well as understanding the costs to industry and the scale of the problem in rail safety terms, it is essential to understand the resources that are deployed to regulate rail safety.

This is a matter that has received considerable attention from industry, particularly in relation to claims that certain regulators, either through fee recovery rates or direct budget support from the government, are 'gold plated'.

The Australasian Railway Association has provided information claiming over-regulation in Australia compared to other international jurisdictions. The association claims the cost of rail safety regulation and investigation in New South Wales is more than five times higher than the cost of the regulator and investigator in the United States of America on a per head of population basis. The association's letter also indicates that regulation in Australia is four times higher than the United Kingdom's Office of Rail Regulation when based on a review of staffing levels per million track kilometres.[65]

In order to assess whether there is a variation in regulatory staff levels across Australia, the staffing levels per million kilometres of train movement were assessed. Correlation tests were conducted in order to identify relationships around current rail safety regulation resourcing. This is shown in table 3 below.

**Table 3. Correlation of current rail safety regulatory resources**

***Correlations prevalent at a jurisdictional level***

| Categories | Correlation (r) |
|---|---|
| Full time equivalent staff / Train kilometres travelled | 0.92 |
| Full time equivalent staff / Number of operators | 0.87 |
| Full time equivalent staff / Track kilometres overseen | 0.68 |

The strongest correlation exists between jurisdictional FTE (full time equivalent staff) counts and train activity within that jurisdiction, measured by train kilometres travelled. There also appeared to be a strong positive correlation between jurisdictional FTE counts and the number of operators accredited within each jurisdiction, whilst a moderate positive correlation existed between jurisdictional FTE counts and track kilometres.

The information provided as a response to the requests for data issues during this process suggests that resourcing relativities do not appear to be consistent across jurisdictions, particularly from the perspective of track kilometres regulated (although this should be considered in terms of the different track environments regulated). Due to the confidential nature of much of the information provided to support this analysis a direct comparison of resourcing in each jurisdiction is not included.

[65] Australasian Railway Association letter to the CEO, NTC, 1 September 2008

## 6.4 Cost benefit analysis

Having assessed that the costs of regulation are relatively insignificant compared to the annual operating costs of the rail industry, noting the current improvements to rail safety outcomes (under the status quo) and considering the comparative levels of resourcing in rail safety regulation across Australia, it is clear that solely financial arguments will not be the driver of reforming the regulation of rail safety.

However, the information gathered does enable a financial cost benefit analysis on each of the options to be undertaken. The high level results of this analysis are included in table 4 below.

**Table 4. Cost benefit analysis of the regulation options**

**Final net present value of cost benefit analysis of modelled options (over 10 year horizon)**

| Option | Net present value |
|---|---|
| **Status quo (and status quo+)**[66] | $105 million |
| **Enhanced state-based regulation** | $142 million |
| **Single national regulator and investigator** | $179 million |

### *6.4.1 Overview of the status quo options 1 and 2 (status quo and status quo +)*

These options are grouped together because COAG has already committed to the implementation of legislation based on the model legislation, which is the outcome embodied in option 2. Option 1 has been included as it accurately captures the current status quo, ahead of the December 2008 deadline COAG has set.

In general, under the status quo options, the costs of rail safety regulation are for the most part shared between regulators and industry (with industry higher than regulators in terms of overall costs borne).

The costs in dollar terms (undiscounted) are set out in table 5 below:

[66] The status quo and status quo+ options are considered together in this analysis as they are materially only different in relation to the consistency of the legislative frameworks operating in each jurisdiction.

**Table 5. Status quo costs**

| Itemised overall costs of rail safety regulation (over 10 year horizon, undiscounted) | |
|---|---|
| **Costs** | |
| Costs of regulating (regulators) | $282 million |
| Costs of regulatory compliance (operators/ industry) | $530 million |
| **Total costs** | **$812 million** |
| **Benefits** | |
| Safety benefits | $863 million |
| Accreditation fees received by regulators | $115 million |
| **Total benefits** | **$978 million** |
| | |
| **Benefit : Cost Ratio** | **1.21** |

The observed overall cost to regulators for the first forecast year (around $27.4 million) is similar to the figure calculated in the 2006 regulatory impact statement[67] which estimated total regulator costs of $25 million.

### *6.4.2 Overview of option 3: enhanced state-based regulation*

The modelled enhanced state-based regulation option is quite similar to the status quo model, with the main difference being in the elimination of 50% of the $10.5 million[68] inter-jurisdictional costs of compliance identified by industry in the Synergies report. With this reduction modelled in, the regulation costs in dollar terms are as follows:

**Table 6. Enhanced state-based regulation costs**

| Itemised Overall Costs of Rail Safety Regulation | |
|---|---|
| **Costs** | |
| Costs of regulating (regulators) | $282 million |
| Costs of regulatory compliance (operators/ industry) | $478 million |
| **Total costs** | **$760 million** |
| **Benefits** | |
| Safety benefits | $863 million |
| Accreditation fees received by regulators | $115 million |
| **Total benefits** | **$978 million** |
| | |
| **Benefit : Cost Ratio** | **1.29** |

[67] National Transport Commission 2005, Model Rail Safety (Reform) Bill: Draft Regulatory Impact Statement for Consultation

[68] Synergies Economic Consulting 2008, 'The Costs of Rail Safety Regulation'

### *6.4.3 Overview of the single national regulator*

The single national regulator option differs from the status quo in a variety of ways.

As with the enhanced state-based regulation option, there is an elimination of inter-jurisdictional costs of compliance assumed. However, in this instance it is assumed that 80% of these costs can be eliminated under the national model.

Additionally, the average of the jurisdictional staff cost per full time equivalent figures is taken as the model staff cost per full time equivalent under the national approach. The overall full time equivalent count however does not change.

Furthermore, $38 million worth of initial setup costs / expenditure (see appendices) is factored into the model (in terms of sensitivity, it is worth noting that setup costs less than approximately $76 million will not effect the ranking of options based on relative net present values).

The other major changes under the national model centre around rail safety improvement assumptions and a change in cost recovery rates. A 100% assumed recovery rate through accreditation fees is used in order to understand the implications of changing cost recovery percentages. Cost recovery is currently only 40%. The implications of these assumptions are discussed below.

Given the modelling of the above assumptions, the regulation costs in dollar terms are as follows:

**Table 7. Single national regulator costs**

| **Itemised Overall Costs of Rail Safety Regulation** | |
|---|---|
| **Costs** | |
| Costs of regulating | $264 million |
| Costs of regulatory compliance (operators/ industry) | $595 million |
| **Total Costs** | **$859 million** |
| **Benefits** | |
| Safety benefits | $927 million |
| Accreditation fees received by regulators | $264 million |
| **Total Benefits** | **$1,190** million |
| | |
| **Benefit : Cost Ratio** | **1.39** |

### *6.4.4 Further implications of key assumptions*

#### 6.4.4.1 Rail safety benefits

On the benefits side, one of the main drivers of the net present value of the single national regulator option is the improvement in safety outcomes. This was represented in the model by a safety improvement rate of 1.83% per annum (as compared to a safety improvement rate of 1.33% pa under the status quo). The argument for the greater safety improvement under the single national regulator model centres on efficiency and better allocation of resources from less administrative functions and into more value adding safety functions,

due to the elimination of a range of duplicated inter-jurisdictional activities under the national setup.

However, it is important to note that the final net present value of the single national regulator option would still be superior to that of the status quo option even given the same, or even a moderately lower, safety improvement rate. This is illustrated in figure 7 below, which shows the net present value for the single national regulator option will be higher than the status quo for safety improvement factors less than -0.92%.

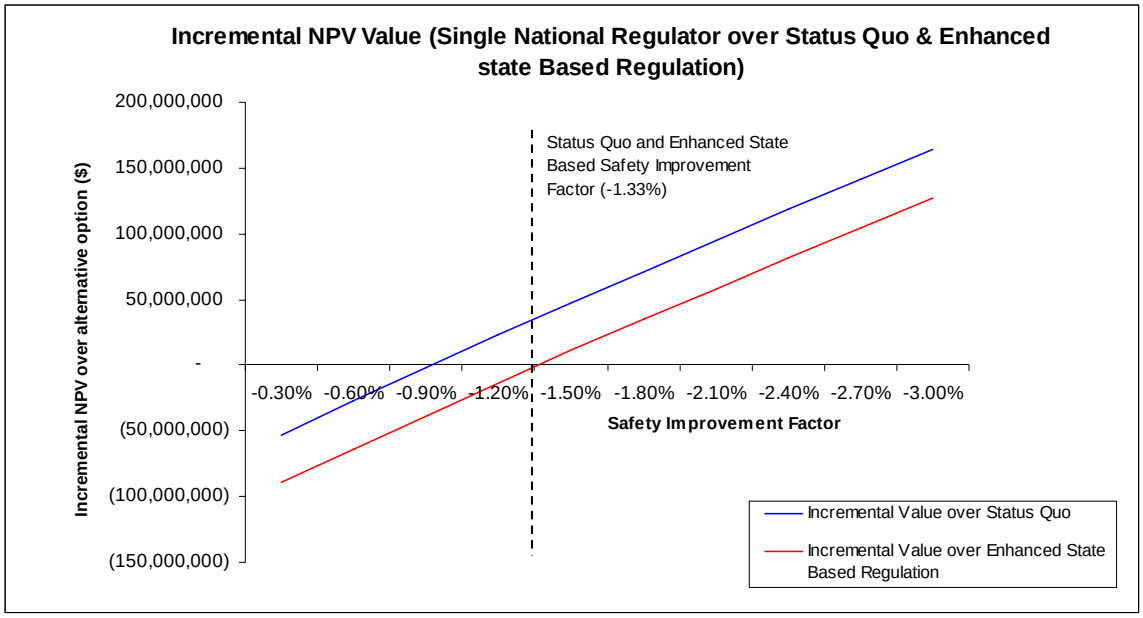


**Figure 7. Incremental net present value of a single national regulator**

When looking at the single national regulator option against the enhanced state based regulation alternative, figure 7 shows that at the same safety improvement factor, the enhanced state based option will yield a slightly higher net present value (approximately $3 million) than the single national regulator option. This tends to indicate that for the single national regulator option to be quantitatively superior from a net present value perspective, it will need to be able to provide more superior safety benefits to what is achievable under the enhanced state based regulator option.

In saying this, it has been assumed that under the enhanced state-based option 50% of inter-jurisdictional costs of compliance can be eliminated. This is a rather generous assumption. Additionally, there have been no transition costs of any kind assumed under this setup, even though there is a strong likelihood that there will be some, with $38 million assumed under the single national regulator option.

#### 6.4.4.2 *Cost recovery*

The appropriate recovery rate for a single national regulator remains to be determined. The model has been built based on a cost recovery assumption of 100% under the single national regulator setup. It is important to note that varying the cost recovery percentage has no effect on the overall net present value of the single national rail regulator option. This is due to the costs of administering rail regulation being offset by accreditation fees and revenue received from industry. For example, under a 100% recovery, regulation administration is offset by the exact amount of accreditation fees received from industry.

Figure 8 (below) illustrates the costs transfer between regulators and industry under different cost recovery assumptions.

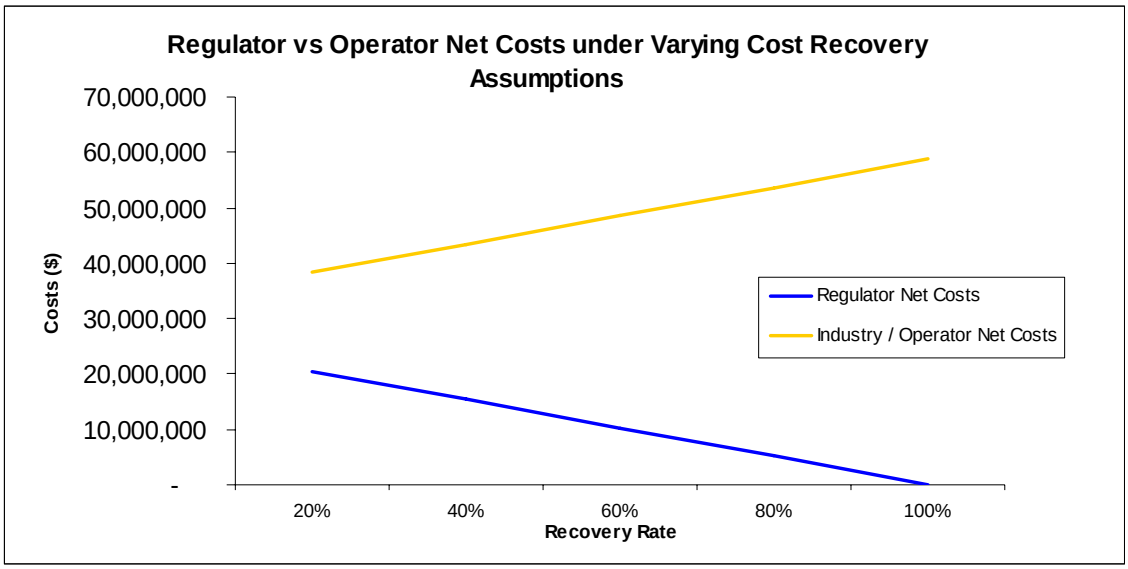


**Figure 8. Regulator vs operator costs of regulation (for first forecast year)**

Whilst the overall net present value does not change as a result of the recovery rate assumption having no effect on net costs/benefits, there is a change in who bears the overall costs of regulation through the effect on the accreditation fees paid by operators. As figure 9 shows, even taking into account the reduction in inter-jurisdictional costs of compliance that a single national model would bring industry, the overall costs borne by industry will only be greater than the costs borne under the status quo at recovery rates of over approximately 76%.

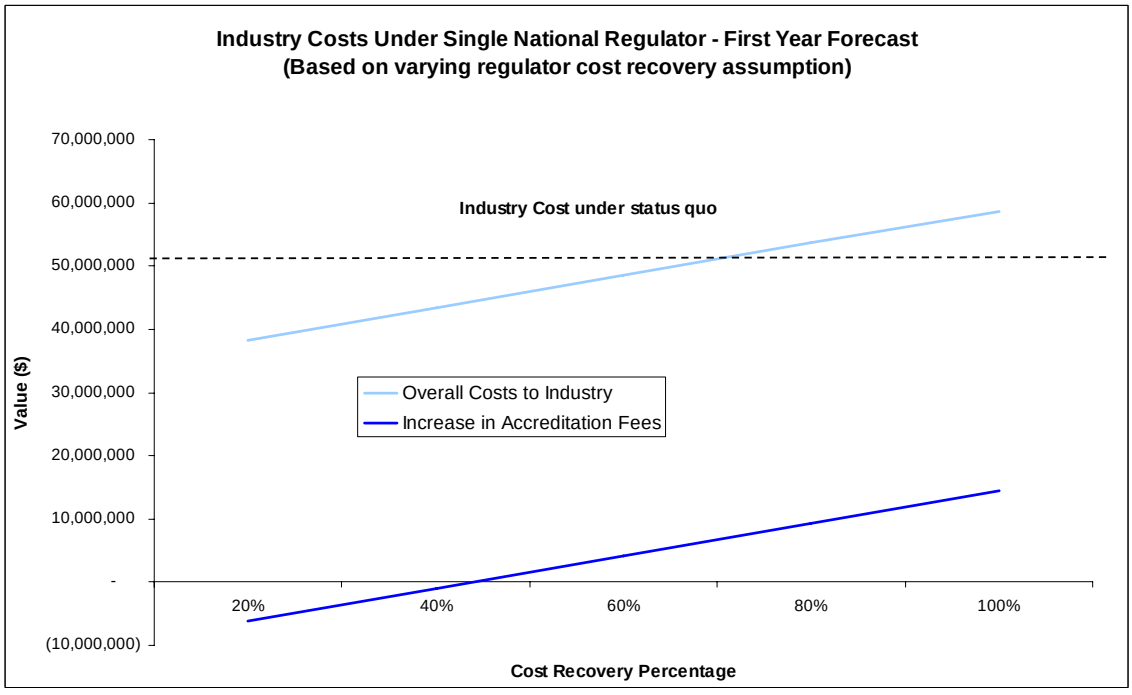


**Figure 9. Industry costs and accreditation fees under varying cost recovery assumptions**

In saying this, it is important to note that the single national regulator model would benefit industry in a number of ways (e.g. improved efficiency) which are difficult to quantify for the purposes of this analysis. It is expected that even at cost recovery rates of 100%, the overall benefits to industry of the single national regulator model would be highly likely to significantly outweigh the costs observed under the status quo.

#### 6.4.4.3 Elimination of inter-jurisdictional compliance costs

It is assumed that a certain portion of the inter-jurisdictional costs of compliance outlined in the Synergies report is able to be eliminated. Under the enhanced state-based regulation option, this cost elimination is set at 50%. Figure 10 shows the effect on the net present value of the enhanced status quo option of varying this cost elimination assumption.

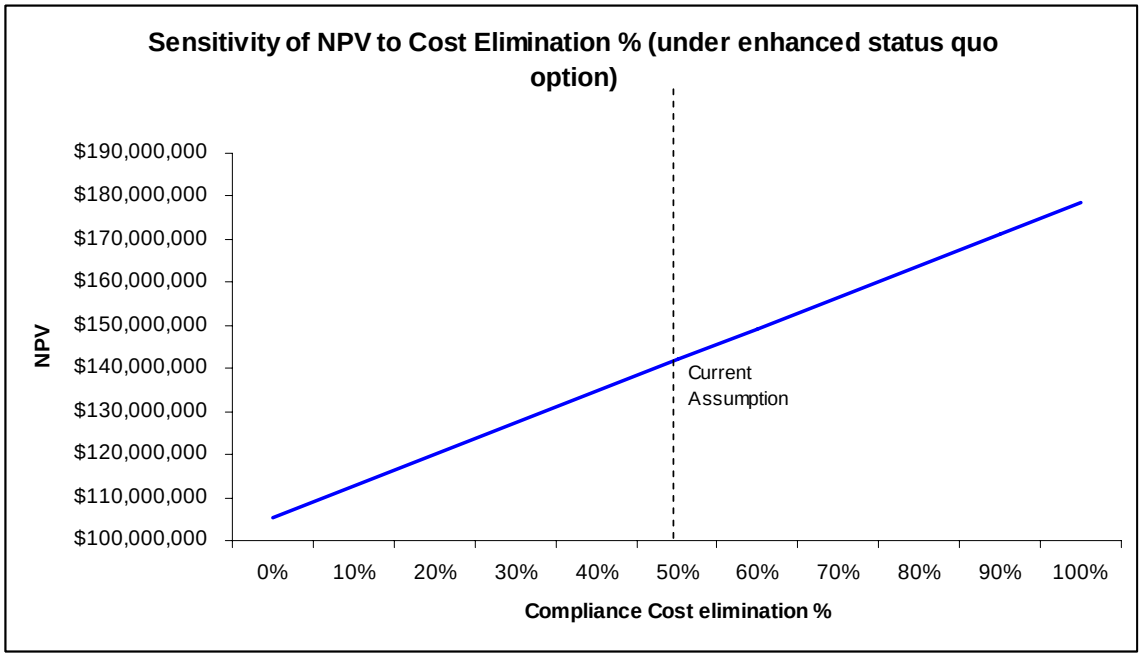


**Figure 10. Net present value of the enhanced state-based regulation option under varied inter-jurisdictional compliance cost elimination percentages**

In a similar fashion, under the single national regulator option, it is assumed that 80% of inter-jurisdictional costs of compliance can be eliminated. Figure 11 shows the effect on the net present value of the single national regulator option of varying this cost elimination assumption.

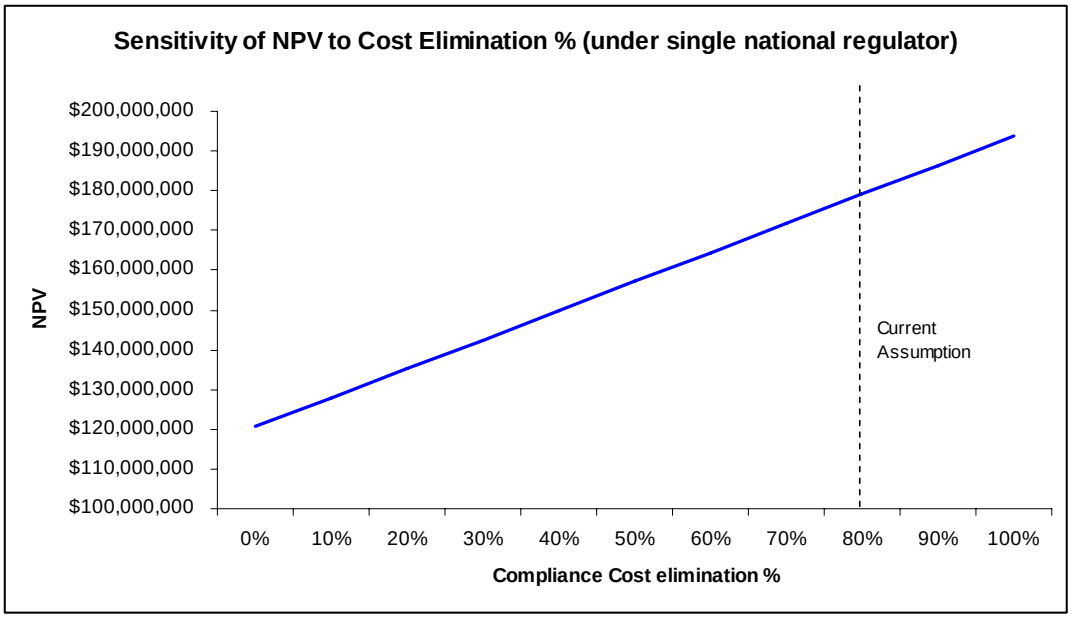


**Figure 11. Net present value of the single national regulator option under varied inter-jurisdictional compliance cost elimination percentages**

#### 6.4.4.4 Number of staff employed under a single national regulator

The total number of full time equivalent staff employed by a single national regulator, as previously discussed, has been assumed to be equal to the total number of current rail regulatory staff.

## 6.5 Summary of impacts in tabular form

From the analysis undertaken an overall summary of costs, benefits and impacts can be assessed using the table, as outlined in the Office of Best Practice Regulation Handbook. This table demonstrates that, in the case of the regulator that both the quantitative and the qualitative assessments have indicated that a net benefit would flow from the move to a single national regulator.

**Table 8. Regulator costs, benefits, risks assessment**

| Option | Impacts, costs and benefits | | | Overall impacts |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business (small, medium and large)** | **Government Australian, state/territory, local governments** | **Other stakeholder groups (rail safety workers, passengers, freight customers)** | |
| **Status quo** | | | | |
| ***Benefits*** | Improvements to operations through one set of rules being prescribed in the legislation. | Individual jurisdictions retain control of expenditure on rail safety regulation and policy within their state.<br>State Ministers responsible for government transport providers have safety regulators to refer concerns to for action. | Rail safety improvements resulting from the model legislation and from improved rail safety generally continues on current trend. | |
| ***Costs*** | As currently incurred –compliance costs estimated to be $42 million per year and total accreditation fees estimated to be $11 million.<br>Some cost inefficiencies for all parties due to duplication of functions between parties – industry estimates these costs to industry to be in the order of $10 million. | As currently incurred – total spend on rail safety regulation is estimated to be $27 million ($11 million of which comes from accreditation fees).<br>Some cost inefficiencies for all parties due to duplication of functions between parties. | Inequalities in expenditure on rail safety regulation between jurisdictions, based on operating environment and policy. | |
| **Option A – Status quo + or enhanced status quo (relative to status quo)** | | | | |
| ***Benefits*** | Benefits as per status quo – theoretical benefit only as local variations to the model legislation undermine some of the positives it would provide. | Benefits as per status quo | Benefits as per status quo | The net benefits expected are those which flow from having a uniform legislative framework, less the costs caused by “local variations” to the national model legislation. |

| **Option** | **Impacts, costs and benefits** | | | **Overall impacts** |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business**<br>**(small, medium and large)** | **Government**<br>**Australian, state/territory, local governments** | **Other stakeholder groups**<br>**(rail safety workers, passengers, freight customers)** | |
| ***Costs*** | From the data gathered for this analysis, which was largely provided by the industry, the costs to industry of the status quo are assessed as $42 million in meeting the costs of regulation and $11 million in accreditation fees. | Costs as per status quo<br>Costs of passing legislation based on the model Rail Safety Bill, in those jurisdictions that have not yet done so.<br>The regulatory impact statement is predicated on no fewer resources for states. Administrative savings have not been quantified. They are not thought to be great, as some jurisdictions are under-resourced relative to other jurisdictions. | Costs as per status quo | Cost incurred as a result of local variations (business) and costs of preparing, passing and implementing legislation (government). |
| **Option B – Enhanced state-based regulation (relative to status quo)** | | | | |
| ***Benefits*** | Benefits as per status quo – theoretical benefit only as local variations to the model legislation undermine some of the positives it would provide.<br>Ability to achieve some national rail safety outcomes including improved recognition of other jurisdictions' accreditation through enhanced decision making powers given to the regulators' panel, meaning more of the benefits of the model legislation will be achieved. | Benefits as per status quo<br>Improvements to the gathering of data and information. | Some improvements to rail safety.<br>Ability to achieve some national rail safety outcomes including improved recognition of other jurisdictions' accreditation through enhanced decision making powers given to the regulators' panel, meaning more of the benefits of the model legislation will be achieved.<br>Improvements to the gathering of data and information. | Net benefits under this option would be more consistent processes and some scale benefits through the cooperative regulatory structures to be implemented. |

| **Option** | **Impacts, costs and benefits** | | | **Overall impacts** |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business**<br>**(small, medium and large)** | **Government**<br>**Australian, state/territory, local governments** | **Other stakeholder groups**<br>**(rail safety workers, passengers, freight customers)** | |
| ***Costs*** | Costs of inefficiencies due to duplication of functions estimated to reduce by 50%, due to decision making ability of regulators panel on matters relating to multi-jurisdictional operators.<br>From the data gathered (largely provided by the industry) the costs to industry under the enhanced state-based regulation option would be $36.3 million (status quo less $5.2 million in eliminated duplicated costs) plus approximately $11.2 million in accreditation fees.<br>Total costs of approximately $47.5 million. | Costs as per status quo<br>Costs of passing legislation based on the model Rail Safety Bill, in those jurisdictions that have not yet done so.<br>Costs of administering and approving the new governance arrangements that would be required to support the regulators panel's enhanced decision making abilities.<br>The regulatory impact statement is predicated on no fewer resources for states. Administrative savings have not been quantified. They are not thought to be great, as some jurisdictions are under-resourced relative to other jurisdictions. | Costs as per status quo | Reduction in inefficiencies for industry, some potential for an increase in costs to governments through the new structures that distinguish the enhanced state based model from the current situation. |

| Option | Impacts, costs and benefits | | | Overall impacts |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business (small, medium and large)** | **Government Australian, state/territory, local governments** | **Other stakeholder groups (rail safety workers, passengers, freight customers)** | |
| **Option C – Single national rail safety regulator (relative to status quo)** | | | | |
| ***Benefits*** | Efficiency gains provided by a single regulator to reforms and operations, through increased percentage of field staff and information-sharing.<br>Reduced regulatory burden for industry. | Full realisation of the benefits of the national model Rail Safety Bill.<br>Increased capacity of regulators through a critical mass in one organisation.<br>Efficiency gains provided by a single regulator to reforms and operations, through increased percentage of field staff and information-sharing.<br>Appropriate resourcing for rail safety across Australia.<br>Improved career path for regulatory staff.<br>Unified and streamlined data collection.<br>Single national perspective on rail safety issues.<br>Recognised independent specialist body and potential "safety champion".<br>Improved potential to learn from international best practice.<br>Culture and attitude will become uniform to match legislation. | Rail safety improvements maximised, leading to possible efficiency dividends and potential cost savings for customers. | The overall impacts are expected to be positive benefits from an economic perspective ($74 million) as well as the social benefits of harnessing as many of the possible improvements to rail safety that are impacted by regulatory performance and structures. |

| **Option** | **Impacts, costs and benefits** | | | **Overall impacts** |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business**<br>**(small, medium and large)** | **Government**<br>**Australian, state/territory, local governments** | **Other stakeholder groups**<br>**(rail safety workers, passengers, freight customers)** | |
| ***Costs*** | Industry compliance costs with a single regulator may increase, as the accreditation fee recovery rate may be higher under a single national regulator than it is now.<br>From the data gathered from industry for this analysis the industry costs under this option would be $33.2 million (status quo less $8.3 million in eliminated duplicated costs) plus approximately $25.6 million in accreditation fees (under a 100% cost recovery assumption).<br>This would lead to the total industry costs being up $59 million (under a 100% cost recovery assumption). | Establishment of a new regulator:<br>• systems<br>• staffing and recruitment<br>• new accommodation<br>• revised legislation<br>• creation of new entity.<br>Ongoing running costs<br>The regulatory impact statement is predicated on no fewer resources for states. Administrative savings have not been quantified. They are not thought to be great, as some jurisdictions are under-resourced relative to other jurisdictions. | Potential cost increases for customers if the costs of accreditation (as a direct cost through fees) increases for industry. | Potential increase in direct costs to industry through accreditation fees offset by a removal of the costs of dealing with the multiple regulators and the associated duplication functions. Potential to make some efficiency savings for government. |

# PART B – INVESTIGATION

Part B of this draft regulatory impact statement addresses rail safety investigation:

- the objective of government action (section 8)
- background to current rail safety investigation arrangements in Australia, overseas and in other transport modes and sectors (section 9)
- the problem (section 10)
- the options to address the problem and meet the objective (section 11).

Part B concludes with section 12, which evaluates the impacts, costs and benefits of the options for a single national framework.

## *7.* INTRODUCTION

### 7.1 Investigation

There is universal acknowledgement among rail safety stakeholders that rail safety investigations are an important and necessary part of rail safety. This draft regulatory impact statement is concerned only with investigations undertaken after an incident or accident has occurred. These investigations have important lessons for industry, regulators and government:

> *"At its best, incident investigation aims to identify the system failures that allowed an incident to occur. Good incident investigations ask a series of 'why' questions that link the incident back to management failures and aspects of organisational culture. Such investigations are time consuming and resource intensive and are usually only carried out following an incident where there has been significant injury or damage .. .They are essentially reactive investigations, after the event of concern."*[69]

## 8. OBJECTIVE

The objective of this draft regulatory impact statement is to examine options and recommend the optimal rail safety investigation framework for Australia. It is envisaged that the scope of a single, national rail safety investigation framework would not change from the scope of current investigatory activities. The framework would apply to those matters and railways which jurisdictions currently investigate.

Good rail safety investigation should address the following principles:

> **'No-blame' investigations**: investigator(s) should undertake systemic, 'no-blame' investigations, analysis of accident cause and complementary safety research.

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[69] Hopkins p9-10

**Independence:** investigator(s) require an acceptable degree of independence, in terms of:

- investigator(s) should be effectively separate from the regulator to ensure the regulator itself is subject to independent scrutiny;
- investigator(s) should not be under direct control of any Minister or government agency;
- there should be no capacity for any external body to have direct influence on the content of reports; and
- investigator(s) should have sufficient legislated power in relation to obtaining and protecting investigation evidence.

**Transparency:** investigator(s) should be subject to an acceptable degree of transparency, in terms of:

- investigator(s) should consult parties with a direct interest in reports and should be given a chance to contribute to the content of these reports;
- Ministers should be given the opportunity to receive a copy of the reports in advance; and
- The final report published should be freely available to any party with a direct interest in the report.

**Ministerial capacity to refer or initiate investigations:** Ministers should have the capacity to ensure an investigation occurs, in situations of direct public/government concern, but cannot influence the outcome of investigations.

**Best investigatory practices**: investigator(s) should have a robust system of accident and incident notification, classification and data aggregation with appropriate supporting legislation, to ensure best practice investigation and to enhance rail transport safety more generally.

**Sufficient capacity and expertise**: investigator(s) should have sufficient appropriately trained and experienced investigators available for deployment at short notice to respond quickly to accidents (**responsiveness**).

**Sound legislative basis:** investigator(s) should have their role defined in legislation, including their reporting requirements.

**Consistency of operation**: investigator(s) should provide a consistent framework for investigation across jurisdictions, based on comprehensive legislation reflecting no-blame/just culture investigation.

These principles were developed in conjunction with experienced investigators and regulators. The main feedback received was to clarify the use of “best practice” and it is noted here that “best practice” and “good practice” are used interchangeably here.

# 9. THE CURRENT SITUATION

This section provides an overview of the current situation in rail safety investigation.

## 9.1 Rail safety investigation and railway track access

For the purposes of track access, part of Australia's railway network has been labelled the Defined Interstate Rail Network, or DIRN, indicated in yellow in figure 12 below.

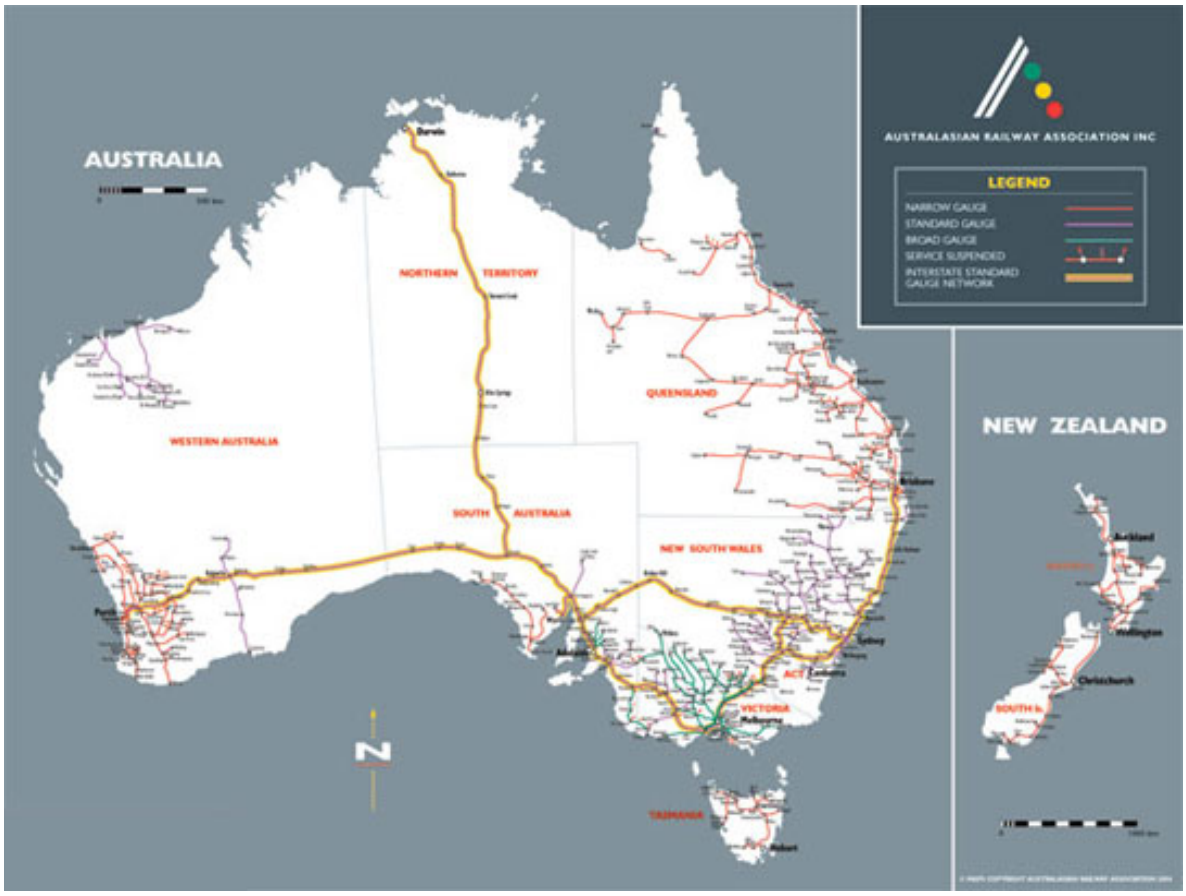


**Figure 12. Map of Australia's rail network (source: Australasian Railway Association)**

Access to the interstate network is controlled by an Australian Government-owned corporation called the Australian Rail Track Corporation (ARTC). Access to other parts of the railway network is controlled by various state-based bodies.

The Defined Interstate Rail Network is important here because in the event of an accident on that part of the network, the Australian Government's Australian Transport Safety Bureau investigates an accident.

Accidents on parts of the rail network owned or controlled by the states are investigated by state investigators, unless the Australian Transport Safety Bureau is invited to investigate.

### *9.1.1 Current arrangements*

New South Wales and Victoria have independent state-based investigators: in New South Wales the Office of Transport Safety Investigation and in Victoria the Office of the Chief Investigator, Transport and Marine Safety Investigation.

The Office of Transport Safety Investigations is responsible for rail, bus and ferry incident and accident investigations in New South Wales. Its investigations identify why an occurrence took place and make recommendations to prevent recurrence. To support this style of investigation, a 'just culture' approach is used. The Office of Transport Safety Investigations is an independent statutory body. Its head, the Chief Investigator, reports directly to the Minister for Transport.

Investigations undertaken to determine what caused a public transport incident in Victoria are undertaken by the Chief Investigator, Transport and Marine Safety Investigations. The Chief Investigator conducts 'no-blame' investigations in order to identify issues that may require review, monitoring or further consideration. These investigations are conducted independently of the rail safety regulator, Public Transport Safety Victoria.

The Australian Transport Safety Bureau (ATSB) separately conducts independent, no-blame investigations on the Defined Interstate Rail Network (DIRN) and if agreed by the relevant Minister, investigates intrastate rail incidents at the request of state and territory authorities. The Australian Transport Safety Bureau is also responsible for safety investigations in the aviation and marine sectors. In all cases, the Australian Transport Safety Bureau is funded to undertake a finite number of investigations.

In other jurisdictions there are no dedicated independent rail incident investigators; the regulatory, investigative and policy function reside in the one body:

- Queensland has a robust process for undertaking independent no-blame investigations. However, the rail safety regulator determines whether or not to conduct an independent investigation.
- Western Australia, South Australia, the Northern Territory and Tasmania rail regulators can appoint independent investigators. In addition, the operational separation of the functions of an investigator from the role of the regulator is not clearly defined in each jurisdiction.[70]
- It was noted during consultation that the Australian Transport Safety Bureau undertakes most independent investigations in South Australia and all independent investigations in the Northern Territory.

It is important to note that in the event of rail incidents or accidents, separate investigations are often done by the rail safety regulator, police, WorkSafe, the coroner and other parties. These investigations are not the subject of this draft regulatory impact statement.

Further, rail safety regulators also undertake compliance inspections (or investigations) to ascertain that industry operators are complying with the terms of their accreditation. These inspections (or investigations) are also not the subject of this draft regulatory impact statement.

In 2007 the Victorian Department of Infrastructure commissioned KPMG to prepare a report into rail safety investigation arrangements. The report recommended improvements to the current system of rail safety investigation. It did not recommend a single national investigator. The report also noted that officials consulted in the preparation of the report did not support a single regulator. The report is in a final draft form and has not been published. Excerpts from the KPMG report has been used here with permission from the Victorian Department of Transport.

[70] KPMG

### *9.1.2 Legislation*

In most states and the Northern Territory, legislative provisions relating to rail safety investigations can be found in the rail safety legislation.

In Victoria, the office of the Chief Investigator is established under the *Transport Act 1983*.

In New South Wales, the Office of Transport Safety Investigation is established under the *Transport Administration Act 1988*.

In both instances, the investigators administer investigation provisions in the Rail Safety Acts in their respective states.

The Australian Government's Australian Transport Safety Bureau is established by and administers the *Transport Safety Investigation Act 2003*.

### *9.1.3 Investigation 'philosophy'*

Two types of safety investigation are usual – 'no blame' and 'just culture'. A no blame investigation seeks to find the reasons why something happened and prevent it happening again. As with no blame investigations, just culture investigations seek to establish what occurred and prevent its recurrence. Unlike no blame investigations, if a just culture investigation discovers a safety incident or accident was caused by a deliberate and malicious act, the matter is handed over to the appropriate regulator or enforcement agency.

These investigation styles are important because they try to ensure the prospect of blame does not deter anyone from fulfilling their safety responsibilities to themselves, rail employees and passengers.

### *9.1.4 Funding and staffing*

In the three jurisdictions which employ dedicated investigators, the number of staff varies according to the following:

- the Australian Transport Safety Bureau employs 110 personnel including 60 investigators who investigate aviation, marine and rail incidents, of whom eight are dedicated to rail.
- OTSI employs 13 personnel consisting of nine investigators who investigate bus, ferry and rail incidents.
- OCI employs seven personnel consisting of five investigators who investigate public transport and marine incidents.

All other jurisdictions provide ad hoc investigatory services subject to incident investigations. For example, in Queensland over the course of a year approximately one full time equivalent staff member was seconded to assist in a no blame investigation and in reviewing investigation reports by industry.

# 10. WHAT IS THE PROBLEM?

This section articulates the problem government action is intended to address.

## 10.1 Rail safety investigation

Current rail safety investigation arrangements are not yet optimal everywhere in Australia.

### *10.1.1 Investigator independence*

The importance of independent accident investigations is widely acknowledged. The argument is summarised in the report into the English Ladbroke Grove accident dating back to 1999, in which the support for an independent investigator was described as "overwhelming":

> *"9.22 The principal argument which was advanced in favour of this proposal was that of structural conflict: it was inappropriate for the safety regulator to carry out the function of investigation since it might be necessary for the investigation to examine the decisions and activities of the safety regulator itself. As the Rail Regulator observed in his statement of case:*
>
> > *' …a safety investigator should be free, where necessary, to criticise the safety regulator if shortcomings on its part have contributed to the accident or its consequences. If the investigator and the regulator are one and the same, it may be difficult to convince the public that this aspect of the investigation will be pursued with the necessary vigour.'*
>
> *Other parties emphasised that the independent activity of the investigating body would provide a positive check on the functions performed by the safety regulator.*
>
> *9.23 It may be noted that the consultation document issued by the Transport Safety Review (TSR) team of the DETR stated at para 2.22, when discussing the proposition of an independent cross-modal transport accident investigation body:*
>
> > *' The reason for an accident may lie in flawed policy-making or in failings in either the setting or policing of safety standards. Accident investigators must not feel constrained in considering such possibilities.' "*

In the European Union, independent accident investigation bodies of the kind recommended in the Glenbrook Inquiry report are now mandatory. Directive 2004/49/EC of the European Parliament and of the Council, of 29 April 2004, mandates:

> *"A safety investigation should be kept separate from the judicial inquiry into the same incident and be granted access to evidence and witnesses. It should be carried out by a permanent body that is independent of the actors of the rail sector. The body should function in a way which avoids any conflict of interest and any possible involvement in the causes of the occurrences that are investigated; in particular, its functional*

*independence should not be affected if it is closely linked to the national safety authority or regulator of railways for organisational and legal structure purposes.*"[71]

Independence of investigators ensures integrity and rigour is maintained throughout the process of evaluating each serious rail incident around Australia. This independence provides jurisdictions and governments alike the opportunity to obtain information and recommendations for the improvement of the rail safety management systems within their state or territory without fear of bias or conflict of interest.

### *10.1.2 Transparency of investigation reporting*

There are currently inconsistent arrangements across jurisdictions for transparent disclosure of incidents and reporting requirements:

- investigation reports undertaken by the Australian Transport Safety Bureau and investigators in Western Australia and the Northern Territory must be provided to the public;
- investigation reports undertaken by investigators in New South Wales and Queensland must be tabled in the state Parliament by the Transport Minister;
- the relevant Ministers in Victoria, South Australia and Tasmania have discretion over the release of reports to the public.

Variations in reporting systems compromise governments and industry's ability to learn from investigation outcomes. Reduced transparency withholds important safety messages from reaching interest groups that are affected by rail safety. Members of representative unions raised this concern as they believe their ability to access reports can be compromised.

In addition, in those states in which final reports are released, there are inconsistencies in the release of investigation reports to Ministers:

- The Australian Transport Safety Bureau is not obliged to provide the Commonwealth Transport Minister with a copy of the investigation report before releasing it to the general public. Furthermore, in consultation it was noted repeatedly that relevant state Ministers do not always receive Australian Transport Safety Bureau reports before they are issued.
- In New South Wales, Queensland, Western Australia and the Northern Territory investigation reports must be provided to the Transport Minister before public release.

Transparency provides an opportunity for all stakeholders to assess information about their industry via formalised communication channels, which are designed to assist in building a safer rail sector.

### *10.1.3 Timeliness in producing investigation reports*

Delays in releasing investigation reports impede the implementation of recommended improvements by industry and governments.

Each jurisdiction currently has formalised arrangements for reporting, this is generally a dedicated section in its legislation that gives guidance once the investigations are finalised. In some cases this guidance is quite prescriptive and specifies the number of days

[71] McInerney 2005, p.204

following finalisation that a report is to be released, while as mentioned above, some states do not require the public release of investigation reports.

With regard to the investigation process, no jurisdiction has set a time period to govern these arrangements. This takes into consideration the unique nature of each incident and the differing timing required for the investigation.

However, it could be considered that there are several associated risks with either lengthy or inconsistent reporting timeframes.

There is a possibility that during an investigation a similar incident could occur again. Therefore, for the relevant parties to learn from the incident and act according to the recommendations, the timeliness of the investigation does have an impact.

Over the course of an investigation process, infrastructure conditions, industry's composition, rail safety technologies, rules and standards may be liable to change. Consequently, in order for investigatory recommendations to be contemporary this requires relatively efficient reporting and release mechanisms.

By providing operators with an indicative timeframe for the investigation of any rail incident, management of changes to safety management systems resulting from reports could be improved. This allows investigators, regulators and operators the opportunity to forecast the resources required to address any changes in safety management. This issue was particularly raised by a representative union, which emphasised the importance of safety for their members.

### *10.1.4 Quality of investigation reports*

Current investigation arrangements result in reports of varying quality. Reports are the prime medium to communicate causes and recommendations to parties affected by rail safety. During consultation it was apparent that existing investigators undertake a great deal of training and skill development, which are important factors in ensuring investigation reports articulate safety learnings for all relevant parties.

Poor reports can distribute inappropriate messages that may not address the causes of the incident to an extent that is considered adequate. Given that affected parties are likely to act upon those messages, investigation therefore may fail to enhance the system as a means to avoid future incidents.

During consultation, stakeholders mentioned instances where incident reports were thought to be of poor quality. Poor quality reports cause frustration when they fail to deliver effective recommendations to improve rail transport safety.

### *10.1.5 Collaborative activities between investigators*

Current investigation arrangements provide inconsistent opportunities for resource sharing and inhibit a collaborative approach to investigation. The 2007 KMPG report noted that:

> *"The investigative powers differ between jurisdictions which may contribute to difficulties in sharing resources and undertaking other collaborative activities."*[72]

[72] KPMG 2007, p.3

Current arrangements do not provide all jurisdictions with formalised investigatory resources. Differences between jurisdictions in terms of legislation, staffing and investigatory procedures may form an impediment to resource sharing.

In the event of an incident some jurisdictions rely on resources provided by other jurisdictions on an ad hoc basis or by requesting assistance from the Australian Transport Safety Bureau. Some jurisdictions choose to contract investigators from outside government.

The Australian Transport Safety Bureau has entered into memoranda of understanding with all of the state and territory government rail regulators with the exception of Western Australia. In addition, the regulators in New South Wales and Victoria have established dedicated memoranda of understanding with that state's investigator. Memoranda of understanding outline the joint roles and responsibilities of each party in relation to the investigation of transport incidents. As such, these memoranda address cross-party investigation to some degree. However, given the non-prescriptive arrangements for collaboration between jurisdictions, the ability to improve processes across Australia towards achieving best practice investigations is hampered.

The formalisation of these arrangements would assist in developing a consistent approach to independent investigation and collaboration provides a genuine opportunity to build a solid platform for the best available investigation services, thus providing additional confidence for operators and the public.

### *10.1.6 Staffing of investigators*

Investigations are undertaken on a jurisdictional basis, which allows investigators to be physically closest to the area of rail incidents and therefore deploy to investigation in a timely manner.

The current investigatory arrangement result in some duplicated efforts. The 2007 KPMG report noted that:

> *"(…) feedback received from stakeholders suggests that there are potential risks associated with the potential lack of coordination of investigator resources from a national perspective. These include, the duplication of some resources; the inefficient use of resources in corporate administration and managing relations between investigators in each jurisdiction; and difficulties experienced by some jurisdictions in accessing resources and expertise."*[73]

Informal communication between investigators takes place but there are currently few formal means by which investigators around Australia communicate with one another. This stifles the ability for investigators to learn from experiences in other jurisdictions and the development of the investigatory process as a whole.

[73] KMPG 2007, p.3

Please comment on the problems put forward for rail safety investigation. Do you think there are more or less problems than those stated, and why?

Please comment on the significance of each of the individual problems. Can you provide data to illustrate your answer?

Please comment on the significance of the problem overall? Can you provide data to illustrate your answer?

The qualitiative analysis of problems for rail safety investigation takes on special significance due to the difficulties in quantifying benefits of investigations. Do readers think there are quantifiable benefits from rail safety investigations?

## 10.2 Concluding comments and analysis

In all industries, it is recognised that safety improvements result from the objective analysis of accidents, incidents and safety deficiencies, and applying the lessons learns from that analysis in a timely manner.

Open and independent investigation of safety occurrences is accepted internationally as the most effective system in terms of safety outcomes and the public interest[74].

More generally, sound recommendations and thorough analysis result from the effective use of investigator resources and the presence of sound governance arrangements.

Current Australian arrangements are acknowledged as working in a reasonable manner, with Commonwealth, New South Wales and Victoria investigators collaborating where appropriate to cover most incidents across the country. However, further consideration needs to be given to these arrangements as the population and freight task grow, as it is appropriate to consider that the amount of incidents in the transport sector will also increase.

In addressing the problems raised earlier, it is possible to improve investigation standards for Australia as a whole by addressing the legislative inconsistencies, inadequate communications protocols, concerns about some organisations' investigation quality and a general lack of understanding of how the Australian Transport Safety Bureau – utilising the provisions of the *Transport Safety Investigation Act 2003* – links with other jurisdictional investigators.

While there are few issues to be dealt with in evaluating the investigation processes, there are some institutional arrangements to be addressed. Current investigatory arrangements in some jurisdictions could variously be improved in terms of independence, transparency, quality and timeliness of reports and staffing.

The consultation process also raised arguments about a perceived potential reduction in cross modal investigation capacity in the two largest states and a potential loss of capacity on the part of state Ministers to instigate rail safety investigations. The issue of cross-

[74] Transport Safety Investigation Bill 2002

modal investigatory capacity is one which arises predominantly in New South Wales and Victoria. Under the current system, New South Wales and Victoria have dedicated investigators who conduct rail safety, as well as bus and ferry safety investigations.

The issue of local access to investigative capacity is very important to governments. Comments made by government officials during consultation indicated Ministers continuing desire to instigate investigations into safety incidents of concern to them. The views expressed on the current situation is that, although not all jurisdictions have investigators within their state or territory, through the various contracting arrangements that are in place, all Ministers can initiate an investigation when they are of the view one is required.

In similar terms to that of regulation, while these problems may not seem concerning individually, when considered collectively the significance is greater, although it cannot necessarily be quantified. As such, it is difficult to measure the impact these problems are having on the implementation of the highest possible quality investigation processes.

# 11. OPTIONS TO ADDRESS THE PROBLEM

This section examines rail safety investigation practices in other countries and safety investigation arrangements in other transport modes. It then outlines the options that could fix the problem.

## 11.1 Rail safety investigation practices in other modes, sectors and countries

As noted at 9.1.1, the existing independent Australian safety investigators also examine incidents in other transport modes.

Rail safety investigations in countries such as the United States of America, the United Kingdom, Canada and European Union member states are built on the principle of independence and operate primarily as national bodies. Independence is considered paramount to allow for unbiased processes. In the European Union, there are dedicated criteria governing the independence of the investigating body. In addition, specific transparency and timeliness requirements must ensure best practice investigation. Given the current arrangements in Australia it is appropriate that these models are evaluated in line with establishing any national framework around investigation practices.

The Rail Accident Investigation Branch is the independent railway accident investigation organisation for the United Kingdom. It investigates railway accidents and incidents on the UK's railways to improve safety, not to establish blame. The website www.raib.gov.uk forms the Rail Accident Investigation Branch's primary channel for sharing the findings from its investigations, as well as providing the railway industry and general public with a means of finding out about the Rail Accident Investigation Branch.

As part of its wide-ranging rail safety regulatory oversight role, the Federal Railroad Administration conducts formal investigations of select railroad accidents and incidents in the United States of America. The National Transportation Safety Board is an independent United States Federal agency that investigates every civil aviation accident and significant accidents in the other modes of transportation, conducts special investigations and safety studies, and issues safety recommendations to prevent future accidents. If the National Transportation Safety Board decides to investigate an accident, by law it assumes primary responsibility for managing the investigative process with Federal Railroad Administration performing a concurrent supporting role. Federal Railroad Administration does not typically release its own report about an accident until the National Transportation Safety Board has issued its findings.

The Transport Safety Board is the independent railway accident investigation organisation for Canada. Accidents and incidents are investigated “for cause” by the Transport Safety Board and by rail safety directorate staff when the Transport Safety Board has chosen not to investigate. When the Transport Safety Board has chosen to investigate, rail safety directorate staff may also investigate to identify threats to safety or non-compliance with the Railway Safety Act and regulations, and Transport Canada may appoint a railway safety inspector to act as a ‘Minister’s Observer’. In addition, rail safety directorate staff investigate employee accidents and incidents as safety officers under the Canadian labour code.

In the European Union it is a requirement for each Member State to establish a permanent safety authority which is independent from railway undertakings, infrastructure managers,

applicants for certificates and procurement entities. This body decides whether or not an investigation of such an accident or incident should be undertaken, and determines the extent of investigations and the procedure to be followed. The investigations are carried out with as much openness as possible, so that all parties can be heard and can share the results. In addition, its duty is to respond promptly to requests and applications, communicate its requests for information without delay and adopt all its decisions within four months after all requested information has been provided.

## 11.2 Options for rail safety investigation

Section 11.2.2 outlines the viable options that have been identified for a rail safety investigation framework, including the status quo, an enhanced status quo and a single national rail safety investigator. Non-viable options are discussed at 11.2.4.

### *11.2.1 Status quo*

Unlike rail safety regulation it is only necessary to describe the status quo once in rail safety investigation.

**Table 9. Status quo for rail safety investigation**

| | **Status quo:**<br>**Option 1** |
|---|---|
| **Number of investigators** | **Multiple investigators** (Australian Transport Safety Bureau, the New South Wales Office of the Transport Safety Investigator, the Victorian Office of the Chief Investigator)<br>A **variety of arrangements** in other jurisdictions |
| **Legislation** | Various Acts from 1983 to 2008 |
| **Investigation philosophy** | A variety of approaches, including ‘just culture’ and ‘no blame’ |
| **Resourcing (staff)** | Resourced to current levels |
| **Funding** | Australian Transport Safety Bureau funded for a finite number of investigations<br>Investigations in other states and the Northern Territory funded by governments |
| **Inter-jurisdictional arrangements** | Australian Transport Safety Bureau investigates accidents and incidents on the Defined Interstate Rail Network<br>Australian Transport Safety Bureau Memoranda of Understanding with jurisdictions |
| **Other** | Australian Transport Safety Bureau publishes rail incident data provided by regulators and collected from industry |

### *11.2.2 Options for change*

Research and consultation reveals that there are two main options for a single, national rail safety investigation framework: retain and significantly enhance the current investigation arrangements, or establish a national investigation body. These two options are illustrated in the following table.

**Table 10. Options for change**

| | Enhanced status quo: Option 2 | Single national investigator: Option 3 |
|---|---|---|
| **Number of investigators** | **Multiple investigators** (as per status quo) | **One investigator** with a central base of operations, from which investigations across jurisdictions will be managed, along with regional representation, based on risk, to adequately respond to local needs |
| **Governance** | **Independent** investigators or investigations in every jurisdiction (as per principle) | **One independent** investigator |
| **Legislation** | All jurisdictions administering **comprehensive legislation** reflecting no blame or just culture investigation. This would form the basis of more formalised resource sharing and cost recovery arrangements between jurisdictions as part of a more integrated approach to no-blame investigation | Administering one piece of **comprehensive legislation** reflecting no blame or just culture investigation |
| **Investigation philosophy** | No blame or just culture as above | No blame or just culture as above |
| **Resourcing (staff)** | **Formalised arrangements for resource sharing:** optimal utilisation of resources by adequately addressing skill, resource and cost requirements at a national level, to enable fast and comprehensive investigation | **Fully resourced:** the investigator should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages |
| **Funding** | **Formalised arrangements for cost recovery:** adequate funding arrangements that would apply when one jurisdiction provides resources to another | **Additional investment** would be required to set up a national rail safety investigator, facilitate the transition process and to reinforce best practice investigation |
| **Inter-jurisdictional arrangements** | **Formalised arrangements** as above for resource sharing and cost recovery | *Not applicable*. |

| | Enhanced status quo: Option 2 | Single national investigator: Option 3 |
|---|---|---|
| **Other** | *Not applicable*. | Maximises potential **operational synergies**: all activities in the investigation portfolio are underpinned by single systems and supported by one set of processes.<br>A single investigator would also promote one culture for regulatory staff throughout Australia. |

**Note**: There are a number of legal and governance issues to be addressed in implementing enhancements to the current situation or a single, national investigator. These issues are discussed in section 14.

### *11.2.3 How far do these options go towards addressing the problems and meeting the principles of good rail safety investigation*

The figure below contains a qualitative assessment of the three options against the principles for good rail safety investigation set out earlier in 6. An explanation of the symbols used can be found below the figure.

**Figure 13. An assessment of the options against the principles for sound practice investigation**

| | Status quo | Enhanced status quo | Single national rail safety investigator |
|---|---|---|---|
| Transparency | +/- | + | + |
| Independence | + | + | + |
| 'No blame' investigations | - | + | + |
| Ministerial capacity to refer or initiate | + | + | + |
| Consistency of operation | - | +/- | + |
| Best investigatory practices | - | +/- | + |
| Sufficient capacity and expertise | +/- | + | + |
| Sound legislative basis | - | + | + |
| **Total** | **+/--** | **+/-** | **++** |

**Legend**

**-** **principle insufficiently met or improved**

**+/-** **principle sufficiently met without improvement**

**+** **principle sufficiently met and/or improved**

The figure above illustrates that qualitatively, only a single rail safety investigator best contributes to an optimal rail safety investigation framework for Australia.

A qualitative analysis of the options against the problems identified earlier has also been undertaken. A more detailed discussion of this assessment can be found in the appendices. Figure 14 is the outline of the problems with each option's effectiveness ranked out of 5.

**Figure 14. Ranking out of 5 of the likely effectiveness of the options in addressing the associated problem**

| Problems | Options | | | | | | Overall Impact |
|---|---|---|---|---|---|---|---|
| | Status quo | | Enhanced status quo | | Single, national rail safety regulator | | |
| Independence | 2 | Not independent in all jurisdictions | 4 | Requires independence | 4 | Requires independence | Independence encourages frank and fearless advice to address problems |
| Transparency | 2 | Variations in reporting and auditing requirements | 2 | Requires implementation of comprehensive legislation to manage processes | 4 | Act in accordance with single body principles | Transparency precipitates open and accountable service delivery |
| Governance | 2 | Different in each jurisdiction | 3 | Comprehensive legislation, resource sharing and cost recovery arrangements | 4 | Central point optimises operational synergies | Improved governance allows for more efficient and comprehensive processes |
| Timeliness | 2.5 | Does not address investigation timeliness | 3.5 | Streamlined approach to resource sharing may assist | 4 | A single coordinated approach may streamline timing possibilities | Consistent timing arrangements allow for more efficient planning and delivery of any required improvement |
| Collaborative activities | 2 | Three dedicated bodies, remainder is ad hoc with assistance from the Australian Transport Safety Bureau | 4 | Allows for comparison of activities | 5 | One body to manage process and resources | Collaboration of views and experiences encourages development of best practice investigation |
| Resourcing | 1 | Duplication across each jurisdiction | 3 | Formalised resourcing arrangements | 5 | Removes duplication and allows for coordination based on risk | Adequate resourcing ensures the best possible investigation process |
| Data collection and analysis | 2 | Arrangements for the Australian Transport Safety Bureau to collect data with assistance from jurisdictions | 4 | Comprehensive legislation may assist in management | 5 | Central point may more effectively manage data | Consolidated data collection provides consistent opportunity to consider how the system is working |

**Legend**

**1** **Current arrangements not effectively addressing the problem**

**2, 3, 4** **are the varying levels of effectiveness through to...**

**5** **Proposed arrangement effectively addresses the problem**

Figure 14 shows that of the options presented a single national rail safety investigator is most likely to address the problems associated with the existing investigatory arrangement in an effective manner. The enhanced status quo delivers independence of the investigator and allows for resource sharing by creating formalising arrangements. It therefore

addresses the issues associated with collaboration and coordination to some extent. However, a single national rail safety investigator more fundamentally addresses processes that may require a streamlined approach by creating one central point for investigation with proper "on the ground" representation. This more likely facilitates timeliness, collaborative activities, resourcing, and data collection and analysis practices, and the principles for best practice investigation more generally.

### *11.2.4 What alternative options were considered?*

The concept of a single body that would cover both regulation and investigation was incorporated in the process, however ruled out because of the obvious conflict of interests.

Given the nature of rail safety regulation and investigations, it would be inappropriate to consider industry self-regulation as a possible conceptual alternative to current investigation arrangements.[75]

[75] Only in the most exceptional circumstances can self-regulation alone protect the public interest. Rail safety is certainly not one of those exceptions. (Gunningham, p10)

# 12. COST BENEFIT ANALYSIS

This section discusses the costs and benefits of the options for a single, national rail safety investigation framework.

The analysis is entirely qualitative due to the difficulties in quantifying the benefits from reactive investigations. Identifying and quantifying direct benefits from rail safety investigations proved particularly challenging. This is not to suggest that rail safety investigations do not have safety benefits, because they do. Unfortunately, for the purposes of financial/ economic cost benefit analysis, such benefits are difficult to meaningfully quantify.

## 12.1 Qualitative analysis

### *12.1.1 Improved standards of investigation*

The first potential benefit to be assessed is improved standards of investigation. This was a key issue identified in the stakeholder consultation process and relates to the benefits of scope and the consistency of process arguments considered below. However the standards of investigation are considered separately in order to allow a focus on the output from the regulator, such as the various investigation reports produced by investigators.

The expected benefits were largely derived from the concept of scale for the rail safety investigator. The consultation process identified a concern as to whether there is sufficient scale of work within Australia to justify three independent investigative bodies. The most commonly held view in this regard was that one investigator would be best placed to ensure the experience and competency of the investigation staff was maintained.

Another argument in support of a single national investigator was that a single body, with the capacity to provide a larger team to investigate accidents and incidents, would provide an improvement in the quality of investigations undertaken. The hypothesis is that improved investigations would result in improved reports, outcomes and recommendations, with the lessons learned from the improved process and outputs providing safety benefits.

It is also assumed that a single investigator would, by virtue of the capacity increase provided to it, be able to provide the same standards of investigation on all rail systems in Australia, not only the Defined Interstate Rail Network and the states where an independent operator exists.

The standard of investigation mandated by legislation, and including clear terms of reference and reports to be made publicly available, is another benefit that would be provided by a single national investigator. This assessment is consistent with the no blame investigation, independence, best practice techniques and fully resourced principles identified for a single investigator.

The single investigator is expected to deliver the greatest benefit in terms of investigator standards, with an enhanced investigator also delivering some benefit when compared with the status quo.

### *12.1.2 Consistency of investigation process*

The next potential benefit to be assessed is consistency of the investigative process. This relates to the discussion of the quality of investigative services above. However, the arguments for consistency in the investigative process are considered separately as they are broader than the general view that a larger resource can look in more detail at all the aspects that present in a rail incident. Similarly, the consistency of process analysis reflects the no blame, best practice investigation and consistency of operation principles.

The consultation undertaken identified an improvement that could flow from a single investigator through improved process. There is currently a perception that the quality of investigators' processes and the standard of their reports is variable. The argument espoused in favour of a single investigator is that the consistency and quality of the investigation process and reports would be improved through the existence of one system with an internal staff development model and quality control mechanism. It is assumed the outputs from this investigator would be of a higher standard and that this would an overall rail safety benefit.

There was not a great deal of discussion of how the processes of an enhanced investigator would work and how this would differ from the status quo. The views expressed during the consultation undertaken indicated that the only way to achieve a consistent process for investigating rail safety incidents was through a single investigator.

### *12.1.3 Timeliness of investigations*

The issue of timeliness of investigations undertaken relates to the scope and capacity arguments above, but should be considered separately. The benefits relating to timeliness of investigation is a benefit that could be realised through provided a having statutory provisions governing the length of time investigations take. This relates to the quality of investigation, legislative basis and best practice principles for a single investigator.

Investigations into rail accidents and incidents take considerable time, meaning there is a lag between incidents and the production of reports and recommendations. This time lag was felt by some parties to have a detrimental impact on safety outcomes. The impact of this could be assessed in a number of ways. The later recommendations are made the greater the chance a situation that was the cause of the investigation could be repeated – a negative safety outcome. This risk would be reduced if greater resources could undertake investigations and produce reports enabling the lessons from investigations to be learnt faster.

In addition, some within the industry argued that under a co regulatory system operators and regulators have their own processes to review accidents and incidents and learn lessons from incidents. These internal processes may not be as complete as a 'no blame/just culture' investigation but do provide many of the same lessons that flow from these investigations. If these lessons are learned prior to an investigation report, then the benefits of having the investigator are partially negated, at least for the operator and regulator directly interested in the investigation. The benefits for the rest of the industry will still be derived from the publicly available report.

Based on this analysis it is argued that any improvement to the time taken to finalise reports will improve rail safety outcomes. However, it is expected that a fully resourced national investigator will have a greater capacity to produce reports in a timelier manner.

### 12.1.4 Increased scope of investigator

The arguments about the increased scope of the investigator relates to the capacity of an expert investigator to investigate all rail incidents across Australia. It also relates to the scale benefits that flow in areas such as career pathway within Australia for rail safety investigators, and maintenance of rail investigation competency.

It has been argued that currently having three investigators with relatively small rail safety investigation capacity, performing a limited number of rail safety investigations, reduces the rail safety learning that can be achieved from investigations. Firstly, industry stakeholders have argued that to maintain a rail investigative capacity a reasonable number of rail investigations need to be completed. The hypothesis presented was that rail in Australia presents an environment where one such reasonably resourced investigator would just conduct enough investigations to maintain rail safety investigation competency for its staff.

In addition to the competency argument, it is argued that there is no obvious career development path for rail safety investigators and aspiring investigators to develop their skills. It is recognised that this is a specialist area, albeit one where investigators can have a wide range of backgrounds prior to becoming rail safety investigators. It is also thought that this is a strength and weakness for current investigators. There are a range of different training and knowledge bases, but at the same time a lack of career development/ enhancement programs.

An argument put forward is that the safety investigation process and the outputs of that investigator will improve if a career development pathway for investigators is provided to reinforce rail safety investigation as its own specialist domain, not a hybrid of other investigatory roles. Again, the number of rail accidents and incidents and investigations, and scope of the investigator indicates that this rail safety speciality discipline could best be achieved through a national body.

As well as these scope related operational and process improvements there was a general view expressed that the data collection and analysis role could be successfully played by a single investigator building on the role currently performed by the Australian Transport Safety Bureau. This argument was put forth both in terms of the scale of organisation providing an opportunity for a data collection unit and database as well as the single set of data collected and analysed providing a framework for improved benchmarks and some international comparison.

Generally, the arguments put forth regarding the potential benefits of scope provided a high degree of support for a single national investigator.

### 12.1.5 Cross-modal investigation capacity

The issue of cross-modal investigatory capacity is one which arises predominantly in New South Wales and Victoria. Under the current system, both New South Wales and Victoria have dedicated investigators who conduct rail safety, as well as bus and ferry safety investigations. The Commonwealth's transport safety investigator is also a multi-modal investigator with investigators who conduct air, maritime and rail safety investigations.

It is the view of the jurisdictions that this cross-modal capacity is an important aspect of the independent investigators' activities. In line with the ATC decision that there should be no diminution of safety standards in any jurisdiction, any move to a single national

investigator would need to address the cross modal issues for New South Wales, Victoria and the Commonwealth.

Although this issue predominantly relates to New South Wales and Victoria, consideration of an investigator was established for rail specific purposes, without investigative capacity for bus and ferry accidents and incidents could be viewed as a disadvantage of a single investigator, in comparison to both the status quo and the enhanced investigator options.

### *12.1.6 Local Access to Investigative Capacity*

The issue of local access to investigative capacity is one which is of paramount importance to governments and is one of the key principles that would be embodied by a single investigator. Comments made by the various government departments during consultation indicated concerns of Minister's regarding their own capacity to instigate investigations into safety incidents of concern to them.

The views expressed on the current situation is that, although not all jurisdictions have investigators within their state or territory, through the various contracting arrangements that are in place, all Ministers can initiate an investigation when they are of the view one is required. This capacity to instigate investigations would be increased by the enhanced investigator as there would be additional resources available, under a largely locally controlled model.

A concern was raised during consultation that with a single investigator the capacity of state Minister's, and government generally, to initiate investigations was potentially reduced, even if the investigator was deemed to provide greater capacity for investigation compared to what currently exists. In light of these concerns, the enhanced investigator option is favoured in relation to the local access to investigative capacity criteria.

In making this assessment in relation to the local capacity to initiate investigations we were mindful of the fact that following large, typically passenger fatality, incidents, governments have had a tendency to hold Royal Commissions, or Special Commissions of Inquiry. These investigations tend to be far reaching, long term, and very expensive. The existence of a single national investigator would be expected to overcome the need for a Royal Commission into a rail accident.

It is unclear as to whether this would be the outcome, as neither the New South Wales or Victorian provisions for a "Royal Commission" like investigation, has to date been utilised. However, it is assumed that a single investigator would have a similar function that could be called upon by Minister's to override the need for a Royal Commission.

### *12.1.7 Conclusions – Investigator*

The overall assessment of the options favours the single national investigator as the outcome expected to deliver the greatest benefit to rail safety. The assessment in favour of the single investigator is largely based on the expected improvements to investigative capacity, the standard of the investigation reports produced, the ability to produce reports in a more timely fashion and through the development of a specialist career pathway for rail safety investigators. These arguments are tempered slightly by the [perceived] potential reduction in cross modal investigation capacity in the two largest states and a potential loss of capacity on the part of state Ministers to instigate rail safety investigations. This analysis is reflected in the figure below.

| Benefits of improving the rail safety investigation framework | | | | | | | |
|---|---|---|---|---|---|---|---|
| Options | Expected Benefits | | | | | | |
| | Improved investigation standards | Consistency of investigation process | Timeliness of investigations | Benefits from increased scope of a national investigator | Cross modal investigation capacity | Local Access to investigator capacity | Total |
| Status Quo | ○ | ◑ | ◑ | ◔ | ◕ | ◕ | ◑ |
| One enhanced investigator | ◔ | ◑ | ◑ | ◔ | ◕ | ● | ◑ |
| Single National Rail Safety Investigator | ● | ◕ | ◕ | ● | ◑ | ◑ | ◕ |

**Figure 15. Qualitative benefits – investigation**

## 12.2 Quantitative analysis

The analysis of options around the harmonisation of Investigative bodies has been undertaken in a predominantly qualitative sense.

However, to provide some context around quantitative costs, a simple cost estimation was undertaken for status quo Investigator costs, and single national investigator costs.

It is expected that costs for one enhanced investigator would fall somewhere within the range of values estimated for the above two options.

Given no change in resourcing requirements (and the application of an average cost per full time equivalent staff figure of the current three investigators as the cost per full time equivalent staff figure of any potential single national regulator), coupled with $10 million in setup costs, Table 11 following illustrates that the net present value over a 10 year horizon of a single national investigator is lower than the status quo by approximately $10 million.

**Table 11. Investigator cost estimates**

| Itemised Overall Costs of Rail Safety Investigators (over 10 year horizon) | |
|---|---|
| **Status quo** | |
| Costs of investigators | $23 million |
| **Net present value** | **($16 million)** |
| | |
| **Single national investigator** | |
| Costs of investigators | $22 million |
| Setup costs | $10 million |
| **Net present value** | **($26 million)** |

As such, the qualitative benefits over of a single national investigator (over and above those of the status quo) over the 10 year horizon would need to be equivalent to a

discounted quantitative value of $10 million for the single National Investigator option's net present value to exceed that of the status quo.

## 12.3 Summary of impacts in tabular form

From the analysis undertaken an overall summary of costs, benefits and impacts can be assessed using the table, as outlined in the Office of Best Practice Regulation Handbook.

In the case of the national investigator, the quantitative analysis does not indicate that government would benefit from a move to a single investigator, as the costs of the investigator will be borne by the governments alone, with no offsets. The qualitative analysis does indicate that some benefit would be accrued from a move to a single national investigator.

**Table 12. Investigator benefits and costs, impacts**

| Option | Impacts, costs and benefits | | | Overall impacts |
|---|---|---|---|---|
| (non regulatory and regulatory) | Business (small, medium and large) | Government Australian, state/territory, local governments | Other stakeholder groups (rail safety workers, passengers, freight customers) | Net of transfers |
| **Status quo** | | | | |
| ***Benefits*** | Some benefits of investigation are realised through the learnings provided by the "no blame" reports produced. | State jurisdictions retain capacity to determine when investigations occur.<br>Benefits to other modes of transport in Commonwealth of having an independent investigator for air and maritime accidents and incidents.<br>Benefits to other modes of transport in New South Wales and Victoria of having an independent investigator for bus and ferry accidents and incidents.<br>Some benefits of investigation are realised through the learnings provided by the "no blame" reports produced. | Some benefits of investigation are realised through the learnings provided by the "no blame" reports produced. | Overall the status quo provides a benefit to rail safety through the investigative function performed in each jurisdiction.<br>The costs of this option are those incurred by governments in funding the three investigators that exist and in providing investigations services on a case by case basis in all jurisdictions. |
| ***Costs*** | - | Current costs to Commonwealth, New South Wales and Victoria for maintaining their own investigation agencies.<br>Current costs to Queensland, Western Australia, South Australia, Northern Territory and Tasmania in contracting in investigation services where required.<br>Inefficiencies through lack of scale in the current operations. | - | |

| Option | Impacts, costs and benefits | | | Overall impacts |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business (small, medium and large)** | **Government Australian, state/territory, local governments** | **Other stakeholder groups (rail safety workers, passengers, freight customers)** | **Net of transfers** |
| **Option B – enhancing the status quo (state-based approach to investigation) (relative to status quo)** | | | | |
| ***Benefits*** | Some improvements to the ability to access and learn from the incidents investigated.<br><br>Some improvements to rail safety through more lessons learned through more investigations being undertaken. | Improved capacity for no blame/ just culture investigations to occur in all jurisdictions<br>Some improvements to the ability to access and learn from the incidents investigated.<br>Some improvements through number of investigations undertaken for the skills of investigators.<br>Some improvements to rail safety through more lessons learned through more investigations being undertaken.<br>Existing investigators still have capacity to investigate accidents and incidents on other modes of transport (e.g. bus and ferry). | Some improvements to the ability to access and learn from the incidents investigated.<br><br>Some improvements to rail safety through more lessons learned through more investigations being undertaken. | Some benefits are expected through the improvements to investigative capacity and resources.<br><br>These benefits will be funded directly by governments, meaning that government will pay for (or bear the cost burden of) achieving these costs. |
| ***Costs*** | Nil – Not applicable, industry would not bear the burden of these costs | Costs as per status quo<br>Additional costs in updating legislative provisions in those jurisdictions without independent investigators.<br>Inefficiencies through lack of scale in the current operations.<br>Costs to government are expected to increase as the costs of providing investigative services increase. | | |

| Option | Impacts, costs and benefits | | | Overall impacts |
|---|---|---|---|---|
| **(non regulatory and regulatory)** | **Business (small, medium and large)** | **Government Australian, state/territory, local governments** | **Other stakeholder groups (rail safety workers, passengers, freight customers)** | **Net of transfers** |
| **Option C – Single national rail safety investigator (relative to status quo)** | | | | |
| ***Benefits*** | Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.<br>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications<br>Improved industry perception of investigator as independent and competent. | Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.<br>Standardisation and improvements of investigatory practice and reports standards<br>Improved skills development and career pathways for the investigators<br>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications | Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.<br>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications | The benefits under this option are the improvements to rail safety that would flow from having a single national investigator.<br>These benefits are assessed on a qualitative basis and rely on assumptions that the quality of investigations, the processes of the investigators and the reach and capabilities of the investigators would increase (from a whole of Australia perspective).<br>The costs under this option would override the benefits if viewed solely from a financial perspective as the costs would be an increasing burden on the government that is not offset by any fee recovery of tangible financial saving.<br>From a qualitative perspective this option would also impose a cost on the capacity (and potentially the quality) of the investigations undertaken into other passenger transport modes in New South Wales and Victoria. |
| ***Costs*** | - | Establishment costs of new investigation organisation:<br>• systems<br>• staffing and recruitment<br>• office refits<br>• enabling legislation<br>Increased running costs compared to the status quo through increased capacity and role of investigator.<br>Costs incurred to cover the operating costs of the investigator. | Loss of coverage/ investigative capacity for bus and ferry accidents and incidents | |

# PART C – CONCLUSIONS, RECOMMENDATIONS AND APPENDICES

Part C of the draft regulatory impact statement summarises the conclusions of the qualitative and quantitative cost benefit analysis of the options for a single, national rail safety regulatory and investigation framework. It also recommends changes to rail safety regulation and potentially to investigation in Australia. Part C addresses the governance and 'transition' issues that have been raised during consultation.

## 13. CONCLUSIONS AND RECOMMENDED OPTIONS

This section concludes the analysis of options for change and recommends different courses of action for rail safety regulation and investigation.

### 13.1 Rail safety regulation

#### *13.1.1 Summary of cost benefit analysis*

Overall, the analysis tends to indicate that on the basis of information currently to hand and from a quantitative perspective in respect to regulation, the single national regulator option is superior. Of particular importance is that this outcome prevails with the preservation of the same staff headcount under the status quo. Furthermore, this option prevails relative to the status quo even if safety (as measured by incidents per year) were to remain the same as it is under the status quo setup. For investigators, the small quantitative gap in net present value costs between the different options suggests that if a single national regulator is able to provide even modest benefits (over $10 million) over a 10 year horizon, then there is merit in its implementation from a quantitative perspective.

When compared against total rail industry turnover of $8 billion, the relative costs to industry of complying with regulation under all options are modest. This indicates that on the basis of current information, compliance costs, whilst sub-optimal and definitely material, are not as large a problem as some within the industry indicate.

The analysis also illustrates an inconsistency in safety regulation resourcing across jurisdictions, particularly when normalised relative to rail activity (train kilometres) travelled within each jurisdiction. As such, this adds further support for the notion of a single national regulator, given that it would allow for the attraction and more efficient allocation of resources.

Either way, from a quantitative perspective the status quo is the least appealing of all options presented. Even though in present value terms there are significant net benefits attributable to retaining the current setup, other options appear to have the potential to provide even greater net benefits.

The four options for rail safety regulation that have been assessed in this impact analysis are:

- Status quo;
- Status quo+ (or enhanced status quo);
- Enhanced state-based regulation (formerly status quo ++); and

- Single national regulator.

These options were analysed in respect to how they will benefit rail safety. The quantitative analysis indicates that a benefit can be attained (from a cost benefit analysis perspective) for each of the options.

However, both the ATC decision and principles established through the NTC's workshops have clearly identified financial costs as secondary to the rail safety outcomes. This view is generally accepted by the industry, which sees both a cost benefit and a safety benefit as desired outcomes from a single national regulator.

The safety focus and the difficulty in obtaining activity data from regulators and industry has meant that this analysis relies on a high degree of qualitative analysis.

The analysis indicates that the improved safety outcomes observed over recent years will likely continue under all of the options.

The status quo will continue to deliver some safety benefits but these benefits will provide the lowest relative return in terms of improved rail safety outcomes. Both the enhanced status quo and enhanced state-based regulation options will deliver some additional increase in safety benefits compared to the status quo, but less than would flow from a single national regulator.

### *13.1.2 Status quo*

The status quo is the current situation. In short it can be described as seven separate regulators administering seven different acts. Rail safety improvements have occurred under the status quo over the past seven years. It is expected that these benefits will continue to flow despite the duplication of regulatory functions that exist and the resultant inefficiencies for business. The status quo options will jointly deliver an incremental benefit in net present value terms of $105 million over ten years.

The status quo has some support amongst stakeholders. This support appears to be based on provincial sensitivities regarding access to regulators for government, concern about possible changes to fee recovery rates, and a general resistance to change.

This reticence to change is understandable considering the time and effort that has been invested in establishing new regulators in New South Wales and Victoria and the focus that these regulators have on improving safety. That there is likely further resistance to change has also been indicated in some jurisdictions if the fee recovery rate changes and increases the cost of rail safety regulation to governments.

Many of the arguments in support of the status quo are not restricted to the status quo, rather they are arguments put forth against a single regulator generally.

Overall, the status quo is considered the outcome least likely to drive improvements in rail safety outcomes. The strengths of the status quo are the local environment knowledge and responsiveness, the proven performance in terms of improved rail safety outcomes (over recent years) and the ability of Ministers to refer concerns to a local regulator. Whilst these matters were assessed as more beneficial under the status quo, the governance arrangements put in place to support a single regulator may neutralise any advantage the status quo has.

### *13.1.3 Status quo + (or enhanced status quo)*

The enhanced status quo option is similar to the status quo. There are seven different rail safety regulators, although these regulators are all regulating legislation based on the national model legislation. As highlighted in the previous section, the status quo options will jointly deliver an incremental benefit in net present value terms of $105 million over ten years.

The majority of the arguments that apply to the status quo are directly transferable to the enhanced status quo option. The primary difference is the similarity of the legislation that the regulators are guided by. As all jurisdictions have committed to implementing the national model legislation this option can be considered as the “future status quo”.

Legislation based on the national model Rail Safety Bill is in place in Victoria and South Australia, and has been introduced to the New South Wales parliament. Other jurisdictions are preparing their legislation with a view to introducing this legislation in line with the COAG commitments.

The greater benefits provided by the enhanced status quo environment relate to the benefits that flow from having a single national Bill, the increase in resources to improve regulatory standards, and data gathering and analysis when compared to the status quo. These benefits will provide additional rail safety benefits, but will not realise the potential benefits to the same level as would occur under a single national regulator.

As is mentioned above, there is a degree of support for the status quo and enhanced status quo options. The support for the current system is based on a perceived risk from some jurisdictions that the move to a single regulator will not benefit rail safety. This view appears related to views that the current levels of resourcing in the state[s] that do not support the single regulator are receiving improved rail safety outcomes already and will continue to do so.

### *13.1.4 Enhanced state-based regulation*

The benefits that would flow from the enhanced state-based regulation option are similar to the benefits assessed in the options discussed above. These benefits increase slightly in terms of the benefits that flow from the single system of regulation and the information sharing and risk-based regulation improvements that are expected from the presence of a decision making panel, based on the Competent Authorities Panel model in dangerous goods. Significantly enhancing the state-based approach to regulation will deliver a further incremental benefit in net present value terms of $37 million over ten years, over and above the benefits in net present value terms of the status quo options.

There was not a high degree of discussion of the enhanced state-based regulation option and neither the quantitative or qualitative analysis supports this option. The decision making panel, based on the Competent Authorities Panel model in dangerous goods, would deliver some of the scale and harmonisation benefits sought, without delivering the full suite of benefits that could be realised by the single regulator.

This option again does not produce the benefits that a single regulator would as it does not completely realise the benefits of a single system of legislation. There would still be seven regulatory interpretations, meaning the full scale benefits in terms of systems and processes will not be realised, and there is the possibility of some reduction in the local focus as a result of the formalisation of the national information sharing functions.

### 13.1.5 Single national rail safety regulator

The analysis undertaken indicates the greatest degree of benefit is likely to be attained under a single national rail safety regulator. This argument is supported by the quantitative analysis which shows that a single national regulator would deliver an incremental benefit in net present value terms of $74 million, over and above the benefits in net present value terms of the status quo options. Expressed another way, it would deliver an incremental benefit of $37 million, over and above the benefits in net present value terms of significantly enhancing the state-based approach to regulation.

Some of the other arguments in favour of a single national regulator are the eradication of duplicated functions and the resultant efficiency gains for both government and industry.

The arguments supporting a single regulator, both from this analysis and previous work undertaken, recognise the efficiency benefits that would flow to industry and government from having a single regulator. However, it is not these arguments that are relied upon in this analysis.

From a quantitative and qualitative perspective, a single national regulator is supported as the option that will deliver the best overall safety benefits – through improved and consistently applied regulatory standards, better data gathering and analysis and the scale benefits (including the career development pathway for regulatory staff).

**Stakeholder comment:**

Readers are invited to comment on what they see as over- or under-stated benefits and costs and present any new data to assist the final analysis.

## 13.2 Rail safety investigation

There were three options identified for the investigation framework. These are:

- Status quo
- Enhanced status quo
- Single national rail safety investigator

These options were assessed, similar to the options for the regulator, on expected benefits to rail safety outcomes based on the analysis undertaken.

### 13.2.1 Status quo

Under the current system there are three independent rail safety investigators operating. They are the Australian Transport Safety Bureau (on the Defined Interstate Rail Network and by invitation), the Office of the Chief Investigator in Victoria, and the Office of Transport Safety Investigations in New South Wales. The state investigators are small investigative bodies with cross modal responsibilities. The Australian Transport Safety Bureau is a cross modal larger investigator that provides services to jurisdictions on an as needs basis. Not all jurisdictions have the same legislative basis for investigations, but all jurisdictions have the capacity to access investigation resources.

This investigatory framework is considered to deliver some benefits to rail safety through the reports produced and made publicly available. These benefits are largely limited to the jurisdictions where independent investigators exist and are tied to the performance levels of the investigators.

There are also views that the status quo does not deliver the optimal outcome for an investigative framework.

This option is thought to deliver an incremental cost of $16 million in net present value terms over ten years.

### *13.2.2 Enhanced state-based investigation*

Under this option there would still be multiple investigators. Additionally there would be a legislative basis for no blame investigations in all jurisdictions supported by cost sharing and fee recovery arrangements. This would provide extra investigative capacity as well as improved institutional arrangements for investigations.

Consistent with the status quo, there will be benefits to rail safety through the existence of investigators and by virtue of the lessons learned from their analysis. The increase in capacity assessed in relation to the institutional arrangements is considered to provide an increased benefit compared to the status quo.

Again, there are perceived risks in this system that the same issues of variable investigator performance between jurisdictions and the lack of scale benefits when compared to a single national investigator.

No estimate of the cost in net present value terms of this option was made, however like the other investigator options it will also be negative.

### *13.2.3 Single national investigator*

A single national rail safety investigator would involve a investigation body performing the current functions of the Australian Transport Safety Bureau for the Defined Interstate Rail Network, the Office of Transport Safety Investigations for the New South Wales rail industry and the Office of the Chief Investigator for the Victorian rail industry. This single national body would also perform the same function of no blame investigations for rail safety incidents on all Australian railways. This investigator would be backed by national legislation, would be independent and would report to one Parliament.

The analysis undertaken indicates that the single national investigator option would deliver substantial benefits to rail safety, if the investigator was developed in line with the principles established by NTC, regulators and investigators.

There is a reasonable assumption that benefits to rail safety would flow from a single national investigative framework. The expected benefits would be increased investigative capacity, uniform processes and improvements in consistency, as well as the establishment of an improved career path for investigators and the scale benefits in terms of performance and maintenance of skills and expertise within the investigator. The risks on the other hand are based on the potential impact on cross-modal (bus and ferry) investigative capacity in New South Wales and Victoria and a concern that depending on final governance arrangements, state Ministers may have less access to investigative resources under a single national investigator.

In quantitative terms a single national investigator would not, under any of the options modelled, deliver a benefit when compared to the status quo. The net present value is negative for both the status quo and for a single national investigator. This option is thought to deliver an incremental cost of $26 million in net present value terms over ten years. The status quo provides an outcome that would provide a $10 million positive outcome in net present value terms when compared with the single national investigator.

**Stakeholder comment:**

Readers are invited to comment on what they see as over- or under-stated benefits and costs and present any new data to assist the final analysis.

## 13.3 Recommended options

### *13.3.1 Rail safety regulation*

The success of a regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. The direct measure of this success is not the number of injuries or reportable occurrences (too many other factors, beyond regulatory control can influence these small numbers), it is the timeliness and quality of decisions, the knowledge applied to provide guidance to industry and the extent of diversion of money, time and resources away from implementing safety outcomes towards negotiating the regulatory process. In addition, it is not a regulatory objective to contribute directly to industry growth. However, regulatory deficiencies that impact on industry efficiency and competitiveness should be minimised.

Four options for a regulatory arrangement were identified, each of which has been evaluated to ascertain its possible success:

- Status quo: the ‘no change’ option. To retain the current regulatory arrangement, with seven regulators, of which only two states have implemented the model Rail Safety Bill.
- Enhanced status quo: to endorse changes to the current regulatory arrangement, including implementing the model Rail Safety Bill and adopting national guidelines and standards by all jurisdictions, as well as all regulators to be fully resourced.
- Enhanced state-based regulation: to endorse rigorous changes to the current regulatory arrangement, including those as outlined in the enhanced status quo as well as changes in process and governance.
- Single national rail safety regulator: one regulator administering an Act based on the model Rail Safety Bill.

The NTC recommends a single national rail safety regulator. Based on the information currently available, it is apparent that a single national rail safety regulator will deliver improvements to rail safety and industry efficiency.

#### 13.3.1.1 Safety benefits

The success of any regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. A particular regulatory system (including institutions, rules and practices) delivers better safety outcomes to the extent that it enhances compliance by industry and assists regulators and industry in making better decisions as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Independence along with transparency are key aspects of sound practice regulation. Under the current arrangements, in some jurisdictions the investigation, policy and regulation function reside in the one body. This provides for unnecessary opportunities for ill conceived regulation due to the possibility of regulatory capture. A single national regulator would deliver acceptable independence and transparency arrangements along with appropriate levels of responsiveness to state and territory governments.

A single national rail safety regulator will enhance the quality of decisions to the extent that it can tap from knowledge and expertise around the nation, build on data compiled nationally and use this knowledge to identify risk profiles and allocate resources accordingly. Sound decisions allow the opportunity for improved risk assessment as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Rail safety is a highly specialised area; as such there is a limited number of trained staff from which to draw. Ministers have already indicated they do not intend any changes in arrangements to reduce the overall number of staff. However, a single national regulator, by the efficient deployment of resources, would make better use of the limited pool of specialised staff. Duplication will be reduced and capacity building encouraged. Collective efforts enable the establishment of critical mass that is required to undertake certain tasks (e.g. to develop and maintain linkages with best practice bodies internationally). A national single regulator would be better able to encompass the extensive range of specialities and new developments relevant to the regulatory task. It would allow for the efficient process of accreditation and variation applications. Lastly, it allows the opportunity to properly reassess the adequate level of resourcing according to risk for the system as whole.

High quality data is essential for identifying and managing rail safety risk. A single national regulator would improve uniformity in definitions, utilisation of (state based) data and validity of results. More specifically, it would improve the prospect of collection and dissemination of consistent and statistically significant amounts of predictive and incident data. This would help the effective analysis of the causes of incidents and trends, the assessment of rail operators and identification of priority areas for attention and resources.

Australia has a vast rail network that varies greatly in terms of the risks posed. Risk-based regulation specifically tailors for factors of risk and the associated requirements and allows resources to be allocated accordingly. Under a single national regulator there will be improved ability to cater for the areas of greatest need, through the quick and efficient deployment of resources to the areas of greatest risk and need.

At the event level, responsiveness refers to regulators' capacity to adequately respond to an incident or accident, irrelevant of magnitude or location. More generally, responsiveness refers to regulators' capacity to develop best practice responses to safety nation wide. That is, the ability to effectively scrutinise change/reform across jurisdictions. A single national rail safety regulator would progress change more quickly and is more likely to identify trends that may require action or attention at a broader scale.

Delays in committing to investment due to uncertainty as to the acceptability of proposals to different regulators equate to delays in the safety benefits of that investment being realised. Resources expended in reworking proposals for the differing demands of different regulators are resources not available for implementation or development of further safety measures. A single national rail safety regulator will reduce uncertainty by building on consistent measures and requirements across Australia and by providing one face for industry.

A single, national regulator would deliver consistent regulatory business processes, accreditation and audits. It would also have the greatest chance of creating a consistent culture among staff, with the attendant benefits in the administration of rail safety regulation. At present, inherent to state based regulation, each jurisdiction takes its own view on risk and how to manage risk, causing operational inconsistencies. A single national rail safety regulator would minimise operational and cultural inconsistencies by using one system supported by one set of processes.

The co-regulatory system is strongly supported by stakeholders and has a demonstrated track record of sound, improving safety performance. However, based on the consultation process, NTC has observed that co-regulation is inconsistent across jurisdictions. This provides for an unstable regulatory environment for those operators who function in more than one jurisdiction. A single national rail safety regulator would seek to build a framework and provide a consistent form of co-regulation, and therefore would reduce sources of confusion and non-compliance.

#### 13.3.1.2 Cost benefits

A multi-jurisdictional regime duplicates costs for operators satisfying multiple regulators and for regulators and governments in performing the same function multiple times. It is anticipated that a single national rail safety regulator will reduce industry and jurisdictional costs.

A consistent regulatory regime would encourage (interstate) rail operators to invest in long term safety management systems with certainty. A consistent regulatory regime, both in terms of accreditation and auditing, reduces duplication and the costs for operators to ensure compliance in multiple jurisdictions. It is anticipated that even at cost recovery rates of 100%, the overall benefits to industry of the single national regulator model would be highly likely to significantly outweigh the costs observed under the status quo or enhanced state-based regulation options.

The cost-benefit analysis shows that the cost of regulation for the first forecast year under a single national rail safety regulator are lowest; $25 million compared to $27 million for the status quo and the enhanced state-based regulation option. Further modelling indicates that this efficiency trend will continue in following years after a single regulator is established.

### *13.3.2 Investigation*

Rail safety investigation requires specific and unique processes in order to gain useful information about the cause of any incident. In order to address these requirements the NTC compiled the following options with the aim of ensuring best practice investigation continues and where appropriate, improvements can be made to the system as a whole:

- Status quo: the ‘no change’ option. Multiple investigators subject to a variety of legislative frameworks and practices;

- Enhanced status quo: optimise the status quo by facilitating nationally consistent rail investigation legislation between jurisdictions, providing for independent investigators and formalising resource sharing and cost recovery arrangements; and

- Single national rail safety investigator: one investigator administering nationally consistent rail investigation legislation.

The importance of independent safety investigations has been emphasised by successive incident inquiries overseas and here in Australia. Three independent investigators have been established by the bigger jurisdictions.

Streamlining investigation frameworks will ensure investigation techniques improve and become more consistent, therefore providing the best possible evaluation of incidents. Improved rail safety investigation arrangements would contribute to better rail safety through:

- **improved governance**: by ensuring independence of investigators it is foreseeable that integrity and rigour is maintained throughout the process of evaluating each rail incident around Australia. This independence provides jurisdictions and governments the opportunity to obtain optimal information and recommendations for the improvement of the rail safety management systems within their state or territory.

- **consistent, best practice investigation processes**: There is no consistent investigation process that provides for good practice investigation irrespective of location or magnitude. A single national rail safety investigation framework would seek to build a framework and provide a consistent form of investigation that would minimise process variability.

- **efficient resourcing**: expertise in investigating rail incidents tends to vary across investigators. This affects the quality of investigation on the ground. To ensure a high standard investigation irrelevant of location, the investigatory regime should allow for the efficient and most tailored deployment of expertise. A single national rail safety investigation framework would make better use of current expertise. Duplication will be reduced and capacity building enhanced. Collective efforts and resource sharing enable the establishment of a critical mass that is required to undertake certain tasks. A national single investigator is better able to encompass the extensive range of specialities and new developments relevant to the investigatory task. By providing a consistent framework there is an opportunity to use the best available investigation techniques and allocate appropriately the best resources currently available in Australia.

The three options formulated for the rail safety investigatory framework were conceptually similar to those in rail safety regulation – the status quo, an enhanced approach to the status quo based on best practice and a national approach.

However, where transport safety investigation differs from transport safety regulation is in the existence in Australia of three multi-modal transport safety investigators. These three bodies investigate variously, accidents and incidents in air, maritime and rail (the Australian Transport Safety Bureau), buses, ferries and rail (the New South Wales Office of Transport Safety Investigations) and public transport (including rail) and maritime (the Office of the Chief Investigator, Victoria).

Transport Ministers directed NTC to prepare a draft regulatory impact statement into a rail safety regulatory and investigation framework. As such, NTC focussed its energies on rail-specific options for improving on current arrangements.

On the basis of the qualitative arguments about safety improvements, the best of the three rail-specific options is a single national rail safety investigator. However, there is no quantifiable support for this option, unlike in rail safety regulation. In addition, creating a single, national rail safety investigator would involve separating twelve rail investigators from their current employers and creating a dedicated body. This would result in reduced investigation capacity in the other independent investigators.

NTC found in evaluating option 3 – a single, national rail safety investigator – that it embodies the principle of independent safety investigators but suggests it could be detrimental to multimodal transport safety investigation in Australia, which is the approach adopted by the Australian Government, New South Wales and Victoria.

Of the remaining rail safety-specific options, option 2 would go some way to address the problems identified earlier by targeting problems with legislative inconsistencies. Capacity issues would be partially addressed with formalised cost recovery and resource sharing arrangements.

There is a fourth option which is outside the scope of the project. Ministers instructed NTC to look at rail safety investigation, which it has done. There is however a body of research and overseas practice which supports consideration of a national, multi-modal investigatory body. In Australia, a national, multi-modal investigatory body could investigate safety incidents in all the transport modes currently investigated by the three independent investigators – air, maritime, rail and public transport.

**Cost benefit analysis – investigation**

Do readers believe there are quantifiable benefits to options for a single, national rail safety investigation framework? Initial consultation suggested benefits such as the costs to society of accidents that are not investigated, the cost difference between a safety investigation and a Special Commission of Inquiry, or the number of preventative safety actions taken as a result of an investigation. However the benefits of these cannot be quantified with any certainty due to the unpredictable nature of safety incidents and the reactive nature of investigations. Readers are welcome to suggest quantifiable benefits of rail safety investigations.

**Discussion point for stakeholders**

The recommendations for a single, national rail safety investigation framework are not as clear-cut as those in rail safety regulation. Moving to a single national rail safety-specific investigator would have advantages and disadvantages. There is room for improvement in current State investigation arrangements, but a rail safety-specific investigator is not necessarily the answer.

Noting that it is **outside the scope** of this draft regulatory impact statement, NTC raises for **discussion only** the concept of a national, multi-modal investigatory body that could investigate safety incidents in all the transport modes currently investigated by the three independent investigators – air, maritime, rail and public transport. Such an investigator would embody the advantages of the current independent investigators but may result in additional benefits from combining scarce investigatory skills across all modes of transport.

Readers are invited to comment.

### *13.3.3 Additional comments*

The NTC acknowledges that moving towards a single national rail safety regulatory and investigatory framework has a number of implications. In the context of significant reform there will always be short term considerations for managing the change, and the following are some issues that may arise in this case:

- Resources – deployment of current staff. Does a single national rail safety regulator affect the allocation/employment of existing resources?
- Governance – ministerial capacity to refer or initiate. Does a single national rail safety regulator adequately cater for state authorities' requirements?
- Operational – local responsiveness. Does a single national rail safety regulator allow for acceptable local responsiveness?
- Financial – additional costs and funding. Does a single national rail safety regulator cost less/the same/more, and how will it be funded?

Many of these issues are considered in the following section.

# 14. STAKEHOLDER ISSUES: GOVERNANCE AND TRANSITION

This section discusses the governance and transition issues raised throughout stakeholder consultation.

NTC has concluded that based on current information, a single, national rail safety regulation and investigation framework would deliver safety and efficiency benefits. The greatest benefits would arise from the creation of a single national rail safety regulator and potentially, an investigator.

Given current arrangements in each jurisdiction, the need for changes to meet the requirements of a new framework is significant. In discussing the required changes, the NTC has addressed without prejudice a number of issues about rail safety regulation raised by jurisdictions during consultation:

- Ministerial relationship to regulator;
- Whether a regulator would have a Board and what functions it would serve;
- How would the chief executive officer of a regulator be appointed? How would the appointment be terminated?
- Scope: will the regulator regulate all the rail industry?
- What legislation would the regulator administer?
- Funding and cost recovery;
- Staffing; and
- Interfaces with other legislation.

In the course of agreeing to a national safety regulator for offshore oil and gas operations, relevant Ministers considered these same issues. An excerpt from the Ministers' communiqué outlining the conditions agreed in supporting a national regulator is included in the appendices.

## 14.1 Rail safety regulation

The following discussion outlines NTC's preliminary thoughts on the governance matters raised to date by stakeholders. The information provided is intended to facilitate discussion and outline some of the relevant considerations.

### *14.1.1 Staffing, including appointment of chief executive officer*

At their meeting in July 2008 Transport Ministers noted that no less resources should be allocated to each jurisdiction, so that response rates and the priority accorded to incidents will not be reduced. The Community and Public Sector Union would be consulted in relation to staffing matters.

A key component of developing and implementing quality safety regulation relies heavily on the staff working for the regulator. Currently there are state-based arrangements in place to manage the ongoing development of the expertise required to work in this field,

due in part to the specialised nature of the rail sector. There are currently 176.5 full time equivalent staff around Australia, based in each capital city.

It is appropriate for the single, national regulator to maintain current staffing arrangements during the interim and establishment phases of implementing the new body; following this period it would be up to the chief executive or equivalent to manage these resources.

Industry stakeholders support local representation, most appropriately by current regulatory staff, who would be easily accessible if required.

With the new rail safety regulatory reform package about to be implemented, all rail regulatory staff must have a high level of relevant skills to ensure that the national rail safety objectives are achieved. There should be nationally consistent competencies for regulators, with particular attention given to safety management plans, human factors and safety system engineering.

The issues of staff recruiting, retention, experience and quality have been consistently raised throughout the consultation process. A single, national body with representative offices would offer regulatory staff the opportunity to build their expertise using the experiences of other jurisdictions and provide them access to expert training and career development in a national system.

Consideration will need to be given to which tier of government would employ the safety regulators. The most efficient options for the management of these arrangements is to consider having the regulatory arrangement fully cost-recovered or have all staff employed by the Commonwealth, regardless of their location.

Examples of suitable provisions for the appointment of a chief executive officer to a regulator can be found in:

- the legislation for existing Australian Government authorities such as the Civil Aviation Safety Authority and the National Offshore Petroleum Safety Authority; and
- the legislation for the New South Wales rail safety regulator or in Victoria, where an independent office holder is appointed.

In establishing the National Offshore Petroleum Authority, Ministers agreed that an appropriate transitional plan which maintains the integrity of the current regime is implemented after agreement by all jurisdictions which minimises adverse impacts on staff, industry and regulatory responsibilities and liabilities to the designated authorities. The Commonwealth, states and the Northern Territory agreed to jointly take responsibility for managing the transition and any costs incurred by the states and territories on a cost sharing basis.

When agreeing to establish the National Offshore Petroleum Safety Authority, Ministers agreed that decisions on the authority's initial chief executive officer would be undertaken by all participating governments.

### *14.1.2 Legal issues*

#### 14.1.2.1 What would be the legal model for establishing a national regulator?

There are a number of legal frameworks by which a single, national rail safety regulator can be established:

- federal takeover of rail safety laws;
- applied or template legislation;
- cooperative referral of legislative powers on rail safety;
- cooperative conferral of powers on a federal statutory authority; or
- cooperative conferral of powers on a jointly-owned body corporate.

The decision on a legislative model would be the subject of further work. It is noted that the current consultation regulatory impact statement for maritime regulation indicates referral of powers by the states to the Australian Government has not been pursued because the state and Northern Territory transport ministers, during discussions at their meeting in July 2008, noted that any national approach should be achieved with a view to avoiding the need to refer powers.

#### 14.1.2.2 Legislation and scope

A national rail safety regulator would administer legislation based on the national model Rail Safety Bill. The Bill would require changes to:

- include governance arrangements for the chief executive officer and any Board;
- resolve or address local policy variations;
- set national penalties, fees and charges; and
- ensure state powers to set up Special Commissions of Inquiry in the event of accidents are not overruled.

Local variations would need to be addressed as discussed at 14.1.2.5.

The national rail safety regulator would regulate rail safety for all accredited railways, including exclusively state-based operations such as mining, urban passenger rail and tourist and heritage operations.

Some mention was made in consultation of the non-rail functions of current regulators. The New South Wales regulator has reliability and other public transport regulatory functions and the Victorian regulator also regulates other modes of public transport. Consideration would need to be given to how governments would administer these functions.

#### 14.1.2.3 Ministerial relationship

State and territory Ministers have a justifiable need for a responsive and accountable independent regulator. These expectations can be met while ensuring that a national regulator is properly independent of all parties.

Legislative provisions for transparency underpin an independent and responsive regulator. In the first instance, the legislative provisions underpinning Australia's two independent regulators in New South Wales and Victoria will provide guidance. In establishing a regulator these matters should be considered the minimum acceptable standard in relation to transparency.

The provisions for the regulators in New South Wales and Victoria relate to situations in which there is only one responsible Minister. In the case of a national rail safety regulator, the Australian Government, state and Northern Territory Ministers for Transport will have an interest in rail safety regulation. The National Offshore Petroleum Safety Authority already operates in this type of environment, being accountable to Australian Government, state and Northern Territory Ministers responsible for offshore oil and gas safety, and lessons may be learnt from examining the National Offshore Petroleum Safety Authority's governance and legislation framework.

#### 14.1.2.4 Board

Three options for a Board of a regulator initially present themselves. The regulator could have a Board that oversees conventional corporate governance matters. A Board with representation from relevant jurisdictions could be appointed. Finally, a decision could be made not to appoint a Board at all.

When agreeing to establish the National Offshore Petroleum Safety Authority, Ministers agreed that decisions on Board composition and membership, and the initial chief executive officer to the authority, would be undertaken by all participating governments.

#### 14.1.2.5 Interfaces with other legislation

There are a number of policy matters in which different jurisdictions adopt different policy positions. In recognition of these differences the national model legislation contains a number of provisions subject to local variation. A process to resolve these issues or identify mechanisms to accommodate differences would be required. These issues would be managed through any transitional arrangements while policy matters are being worked through. The key issues regarding interaction with existing arrangements fall under the following headings:

- overlap with general occupational health and safety duties;
- drug and alcohol management;
- fatigue/regulated driving hours; and
- various ancillary statutory power and responsibilities of relevant Minister(s) in each jurisdiction.

The creation of a national regulator may, but would not necessarily resolve these issues. Their resolution may be necessary to allow the national regulator to effectively function, particularly where the regulator is to administer a single, national law. Pursuing a single regulator offers greater opportunity for national consistency in these matters.

A national review of occupational health and safety laws is currently underway. The review will report in 2009 to the Workplace Relations Ministers' Council on the optimal structure and content of a model occupational health and safety Act that is capable of being

adopted in all jurisdictions. The review's outcome may have implications for the general duty to ensure safety in the model Rail Safety Bill.

There are other significant regulators (electrical safety regulators, dangerous goods regulators, security regulators) with mandates that affect safety.[76] The requirements of economic regulators may indirectly influence safety. The actual and potential interactions with these other regulators and agencies such as police and coroners should also be identified and coordinated.

### *14.1.3 Funding and cost recovery*

A fundamental component of developing and implementing a single, national rail safety regulation system will be sourcing the necessary funding for the interim establishment and ongoing requirements of any new body.

At their meeting in July 2008 Transport Ministers noted that no less resources should be allocated to each jurisdiction, so that response rates and the priority accorded to incidents will not be reduced. This agreement establishes a threshold for funding arrangements for a safety regulator.

Only two jurisdictions (Queensland and Western Australia) currently have arrangements close to 100% cost recovery of costs from industry. With rates of cost recovery averaging 40% but varying currently across jurisdictions, significant consideration will need to be given to maintaining standards in well-funded jurisdictions and in balancing industry operator fees.

Given considerations of current arrangements with partial cost-recovery, supplemented by public funds in a majority of jurisdictions, it may be necessary for an initial contribution from the Australian Government to establish any new body, while jurisdictions are managing the effects of such a change. The redistribution of the regulatory burden from each jurisdiction and operators' requirement to meet one set of compliance costs will reduce the overall funding required to maintain the system.

Consultations with employee unions have revealed a preference for intervention levels consistent with that of the current New South Wales arrangements; this would require significant increases of funding in some jurisdictions.

The Productivity Commission has established principles for cost recovery and examined the use of cost by regulatory agencies, including those with safety responsibilities. These and any other well-established principles for cost recovery will need to be considered in establishing the resourcing, funding and fees arrangements for a single regulator.

In establishing the National Offshore Petroleum Authority, Ministers agreed that it would be fully funded on a cost recovery basis by an industry safety fee. It was also agreed that a new fees agreement be developed by the Australian Government, states and the Northern Territory ensuring the amount designated authorities receive in revised industry fees, once the safety regulation function is transferred to the safety authority, is no less than they received during 2001-02 and determined on the basis of cost recovery principles.

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[76] In New South Wales, it is expected that Independent Transport Safety and Reliability Regulator and the Road Traffic Authority and other road authorities will strengthen their relationship in light of proposed obligations on such authorities to enter into interface coordination plans. In South Australia, as police may be given statutory rail safety officer powers and authority, detailed negotiations are to take place between the Departmetn of Transport, Energy and Infrastructure and the South Australian police.

### *14.1.4 Regulatory approach*

There are currently a variety of approaches to rail safety regulation. The optimal regulatory approach is not one that can be prescribed. It is informed by continually improving regulatory practice, the maturity of the industry regulated and changing societal concerns and expectations. The chief executive officer of the regulator is responsible for an optimal regulatory approach (within the defined limits of legislation) and for the parties to whom the chief executive officer is accountable to be satisfied with this performance (otherwise, the chief executive officer should be replaced). The regulatory approach is one which should be determined by the chief executive officer, in consultation with relevant stakeholders and based on contemporary good regulatory practice. It would be expected that the chief executive officer of the national regulator would, as an early transitional project in the establishment of the regulator, assess the existing approaches across the state offices, identify areas of inconsistency and (over time) adopt the best of the breed across the various offices.

## 14.2 Rail safety investigation

A similar discussion is provided following in relation to potential governance issues in rail safety investigation. These include:

- legislative arrangements for a single investigation or for an enhanced state-based approach;
- accountability;
- policy implications; and
- cost and staffing.

This discussion should be considered in the context of the earlier discussion about the relative merits of options to improve rail safety investigation arrangements in Australia.

### *14.2.1 Legal issues*

#### 14.2.1.1 Legislation for any single investigator

There are a number of legal frameworks by which a single, national rail safety investigator could be established:

- federal takeover of rail safety laws;
- applied or template legislation;
- cooperative referral of legislative powers on rail safety;
- cooperative conferral of powers on a federal statutory authority; or
- cooperative conferral of powers on a jointly-owned body corporate.

Incident investigation legislation currently operates in all states and the Northern Territory. Consideration would be given to using the legislation that underpins independent investigation arrangements in the Australian Government, New South Wales and Victoria.

#### 14.2.1.2 Legislative improvements necessary for a state-based, national investigation framework

The draft KPMG report into rail safety investigation arrangements found that there are material differences in the scope of investigative powers afforded to investigators in each jurisdiction.

It is suggested that consideration be given to introducing some consistency between jurisdictions in relation to:

- Appointment of an independent investigator, by parties including but not limited to the regulator;
- Investigation provisions relating to evidence and witnesses; and
- Transparency and public reporting.

In two jurisdictions the practice is to choose from a range of investigators. Consideration may need to be given to ensuring flexibility for these jurisdictions. In other jurisdictions there are other dedicated independent investigators or it is usual practice to use the Australian Transport Safety Bureau.

#### 14.2.1.3 Investigator accountability

An independent investigator would report to one Minister or to all Ministers. Provisions for Ministers to direct the investigator to undertake an investigation would be required.

### *14.2.2 Policy implications of change*

There are a number of policy implications from changing rail safety investigation arrangements. These include the basis on which investigators choose to investigate incidents, the participation of other agencies and evidentiary provisions.

The Australian Transport Safety Bureau is resourced each year to undertake a finite number of rail investigations on the Defined Interstate Rail Network. It is acknowledged, however, that an occurrence with a large number of deaths (not including an occurrence that was primarily a road accident) would represent a major accident and supplementary funding may be required. Similarly, New South Wales and Victoria's Chief Investigators have the discretion to choose which transport safety occurrences they will investigate. The Minister(s) may also direct that an investigation takes place.

In the event of accidents, representatives from police, the coroner, WorkSafe and the regulator will attend, in addition to safety investigators. Often police and emergency services and representatives of the rail operators are the first trained personnel to arrive at railway accident sites. Formal and informal arrangements would be updated to accommodate a change in institutional arrangements.

The provisions for investigators to collect and preserve evidence would be reviewed to ensure they are as comprehensive as possible.

### *14.2.3 Cost for industry and governments*

A primary factor of developing and implementing improvements to the current arrangements or creating a single, national rail safety investigation system would be sourcing the necessary funding.

As outlined in section 10.1, not all jurisdictions have an independent rail safety investigatory body, which would be an additional cost if creating a new body.

The current arrangement has two jurisdictions having independent investigation services and the Australian Transport Safety Bureau providing assistance to other jurisdictions as required. Operating requirements are currently supplemented by public funds and it may be necessary for an initial contribution from the Australian Government to establish any new body, while jurisdictions are managing the effects of such a change.

### *14.2.4 Is there an impact on staffing arrangements?*

As is the case with the regulator, a key component of developing and implementing quality investigation processes relies heavily on the staff working for the investigator. There are minimal arrangements in place to manage the ongoing development of the expertise required to work in this field, due in part to the unique nature of the rail sector.

It is appropriate for the single, national investigator to maintain current staffing levels, with the addition of provisions for state-based offices to make for efficient geographic deployment in the event of an emergency. Maintaining these levels during the interim and establishment phases of implementing the new body until the chief executive officer or equivalent is in place to manage these resources.

The issues of staff recruiting, retention, expertise and experience have been consistently raised throughout the consultation process. These matters have been discussed in relation to the single, national rail safety regulator at section 14.1.2.2 and can be resolved in a similar manner in establishing the single, national rail safety investigator.

The Community and Public Sector Union would be consulted in relation to staffing matters.

## 14.3 Transition

Consideration should be given to the establishment of a government “transition team” with consultation, oversight responsibilities and to provide assistance to jurisdictions as required. A transition team would be responsible for:

- preparing inter-governmental agreements and funding arrangements;
- developing the legislation underpinning the national regulation system; and
- decide on operational matters, including staffing, location and information technology systems.

A transition team would ensure progression of the change to a national system of rail safety regulation. It would regularly report to the Governance Working Group established under the National Transport Policy Framework. Terms of reference for the transition team would be drawn up, in consultation with government stakeholders, for consideration by ATC. ATC would nominate a head of the transition team.

The transition team could include representation from the relevant parts of government:

- rail safety regulators (a minimum of two regulators including the Chair of the Regulators Panel);
- transport policy agencies;

- the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government; and
- NTC.

Participation from other government agencies may also be required.

Ongoing consultation with all relevant stakeholders, including industry and unions, would be undertaken during the transition period.

Transition arrangements for changes to rail safety investigation arrangements are not contemplated here because the draft regulatory impact statement does not contain a definite recommended option.

## 15. CONSULTATION

This section describes the affected and consulted parties, the consultation undertaken in preparing this draft regulatory impact statement and summarises the range of views expressed during consultation.

### 15.1 Affected parties and consulted parties

Table 13 sets out the parties with a stake in rail safety regulation and the nature of their interest.

**Table 13. Parties with a stake in rail safety regulation and investigation**

| | Nature of interest |
|---|---|
| Australian Transport Safety Bureau | • Undertake transport accident investigations, including on the Defined Interstate Rail Network |
| Department of Infrastructure, Transport, Regional Development and Local Government | • Provision of advice and support to Commonwealth Minister for Transport |
| Commonwealth Minister for Transport | • Chair of Australian Transport Council (Ministerial Council)<br>• Shareholding Minister in Australian Rail Track Corporation – 100% Commonwealth owned below rail operator |
| State Departments of Transport | • Provision of advice and support to state Ministers for Transport<br>• In Queensland, Western Australia, South Australia, Northern Territory and Tasmania, responsible for rail safety regulation (whether under delegation or not)<br>• Undertake or commission rail safety investigations in some situations |

| | Nature of interest |
|---|---|
| State Ministers for Transport | • Members of the Australian Transport Council<br>• Accountable to the public of the state for transport<br>• In some instances, will be a shareholding Minister in a state-owned rail operator |
| Independent Transport Safety and Reliability Regulator (New South Wales) | • Regulates rail safety in New South Wales |
| Public Transport Safety Victoria | • Regulates rail safety in Victoria |
| Office of Transport Safety Investigations (New South Wales) | • Undertakes transport safety investigations in New South Wales |
| Office of the Chief Investigator, Transport and Marine Safety Investigations (Victoria) | • Undertakes transport safety investigations in Victoria |
| Rail unions:<br>• Rail, Tram and Bus Union<br>• *Others to be identified and consulted during formal consultation.* | • Union members are employees of rail companies |
| Rail operators<br>• Interstate freight operators<br>• Interstate passenger operators<br>• Intrastate passenger and freight operators<br>• Tourist and heritage railways<br>• Contractors<br>• Pilbara (mining) railways | • Commercial imperatives<br>• Provision of public passenger transport services, including community service obligations<br>• Tourist attractions and preservation of rail heritage (tourist and heritage only)<br>• Infrastructure maintenance (contractors) |
| Australasian Railways Association | • Industry body representing rail industry interests. |
| Association of Tourist and Heritage Rail Australia | • Tourist and heritage sector is concerned to ensure that rail safety regulatory activities are undertaken with a recognition of the challenges posed by the sector, with a large volunteer workforce, limited financial resources and largely non-commercial focus. |
| Community and Public Sector Union | • Union members work in regulators and Departments of Transport. |
| Association of Professional Engineers, Scientists and Managers, Australia (APESMA) | • Members work in regulators, investigators and Departments of Transport. |
| Central agencies | • Policy and financial implications for governments |

| | Nature of interest |
|---|---|
| Officers and employees of government departments, regulators and investigators | • Concerns about job security |
| Road authorities | • Issues relating to level crossings, where roads and railways intersect. |

Most of the parties described above in Table 13 have been consulted in the preparation of the draft regulatory impact statement. The short timeframe for preparing the draft regulatory impact statement meant consultation had to be targeted carefully and resources devoted to consultation, writing and analysis carefully utilised. Nevertheless, NTC consulted many rail operators, representatives from every jurisdiction, representatives of two industry peak bodies and two unions.

The objective of early consultation was to provide stakeholders with an initial opportunity to communicate issues and any concerns about the project. Secondary objectives included communicating the likely project process and seeking assistance with data required to support the analysis of impact, costs and benefits. A tertiary objective was to ensure stakeholders were able to respond when the draft regulatory impact statement is released for government and public consultation.

NTC initiated an information bulletin series to ensure stakeholders were kept informed about the project. Bulletins were released regularly. Topics included principles and options for regulation and investigation, consultation, data, governance and the next round of consultation.

## 15.2 Overall observations arising from initial consultation

NTC consultation to date has identified a number of factors about the current situation:

- Philosophical approaches to the idea of "co-regulation" vary across governments, and between government and industry. These differences will always arise in the inherent tension between regulators and regulated, but the extent to which governments' philosophies differ was noteworthy.
- Regulators' levels of intervention vary. This may result from the risks in each jurisdiction and may reflect the differences in resourcing too.
- It is difficult to quantify the extent to which different approaches result in safety benefits (or disbenefits). Unions strongly support more interventionist approaches.
- Safety data for governments: NTC and regulators have already recognised the difficulties of state-by-state approaches to data collection, producing a *National Strategy for Rail Safety Data* to achieve greater consistency in data collection, analysis and publication. Regulators have also recently revised ON-S1 (the standard for occurrence categories and definitions).
- Shared safety data for industry purposes: the Australasian Railway Association has recognised the need for sharing by industry of safety data with a commitment in the above strategy to produce an industry database.

- The Australasian Railway Association's claims of inefficiency are treated with scepticism by regulators. It is important to undertake an independent and open analysis of the claims.
- Opinions on the Australian Transport Safety Bureau vary, and concerns appear to be about the investigations they choose to take on, and keeping Ministers in the state concerned informed, particularly with advance copies of final reports. Generally speaking Australian Transport Safety Bureau reports are regarded as of a high quality.
- The importance of timely, high quality investigation reports was raised repeatedly. Industry and union(s) believe the reports can be valuable for lessons learnt, but they have to be released within a reasonable timeframe to be useful.
- The Rail Safety Regulators Panel adopts a collegiate approach to national consistency, which should be recognised. However, there are limits to the panel's ability to achieve national consistency.

Stakeholder views can also be grouped according to the following:

- The need or case for institutional change:
    - There is widespread agreement that the draft regulatory impact statement focus strongly on maintaining or improving **safety** outcomes. All parties agree safety outcomes are important; the industry peak body believes a single regulator will deliver improved safety outcomes while some in government are concerned a single regulator will diminish safety outcomes. None of these claims have been substantiated by proponents.
    - Industry and some in government also believe it is important to reduce unnecessary regulatory inefficiencies affecting industry.
    - The principle of **risk** is considered very important and the principle that, "Regulators, and the regulatory system as a whole, should use comprehensive risk assessment to concentrate resources on the areas that need them most," is one to which most parties generally subscribe.[77] Currently, risk assessment in Australian rail safety regulation, and consequently allocation of resources, is undertaken on a state-by-state basis.
    - **Australian Government and some state government officials** are taking a "wait and see approach" to whether institutional reform in rail safety regulation and investigation is required. To date most have indicated they are not convinced there is a problem to be addressed or a need for change.
    - The **Australasian Railway Association** supports very strongly the setting up of a national rail safety regulator and a national rail safety investigator. On behalf of members, it advocates that a single regulator (in particular) will improve safety, reduce the regulatory compliance and administrative burden on business and lessen government spending on rail safety regulation. The Australasian Railway Association has provided qualitative, anecdotal and aggregated information and data to support its claims about the costs of business and regulation.

[77] Hampton Report http://www.hm-treasury.gov.uk/media/7/F/bud05hamptonv1.pdf

- A single national regulator appeals to **interstate rail operators** (generally freight, but also passenger) because they would deal with one body, not several.
- **Intrastate** (generally metropolitan) **passenger rail operators** express a range of views on a single, national rail safety regulator. Some commented that a single regulator would not make much difference, as they currently only deal with one regulator. One operator did note however that things could be different for them if the style of a national regulator was markedly different from the style to which they are accustomed. However, two **metropolitan passenger operators** in Victoria have reservations about a single national regulator or do not support a single national regulator. One operator stated that their experience with the development of road rules (in which states all have a say) led them to conclude a Victorian-focussed rail safety regulator would continue to be to their (the operator's) benefit. The second regulator couldn't perceive safety or commercial benefits from a single regulator. In addition, this operator was concerned about particular policy positions in Victoria being modified by a national regulator.
- The **Rail, Tram and Bus Union** adopts a "healthy scepticism" about a national regulator, but is aware of the many benefits for employees that would result from a national approach to matters affecting staff.
- Like the Rail, Tram and Bus Union, the **Community Public Sector Union** supports a more interventionist-style regulator.
- A number of stakeholders commented on whether the **timing** for change is right, given that COAG has committed to introduce harmonised rail safety legislation in each jurisdiction. The views expressed here range from believing jurisdictions should be given the opportunity to implement legislation before further changes are contemplated, to frustration at delays in implementing legislation and suggestions that the delays indicate another course of action should be pursued.

- Resolving what "style" of regulation a national regulator would adopt.
  - Currently the style of each state regulator is different. These differences arise from historical factors, any major accidents, financial and other resources available (whether through accreditation fees or from consolidated revenue), staff (personalities, experiences, outlooks, even demographics) and the nature of the rail operations in that state. New South Wales' rail safety regulation today results from the response to serious rail accidents at Glenbrook and Waterfall. In recent years Victoria has moved to improve rail safety regulation after benchmarking poorly against other states. During consultation the view was expressed that in other states, regulation is done with a lighter touch and governments would change that if a serious accident occurred. The Australasian Railway Association puts regulators on a spectrum from most acceptable (least interventionist) in South Australia, through to least favoured (most interventionist and bordering on prescriptive) in New South Wales.
  - The question of regulator style seems of disproportionate interest to all stakeholders because rail safety regulation is co-regulatory. Rail safety regulation is relatively recent (around 15 years) and occupies a middle ground between prescriptive regulation and industry self-regulation. Co-regulation recognises that governments have a legitimate interest and right to regulate and that industry has expertise and knowledge to identify and manage its own safety

risks. There is an inherent tension between rail operator and regulator which is arguably exacerbated by the seeming complexity of co-regulation.

- **What would a national regulator look like?**
    - There is a lot of interest in what a single regulator might look like, how it might be structured, even where it would be located.
    - It is assumed by most stakeholders a national regulator would be an Australian Government entity based in Canberra.
    - NTC maintains that any regulator would be either a state or Australian Government entity, with a head office in one capital city of a jurisdiction with a rail system and branch offices in most other capital cities.
    - The legislative provisions relating to the regulators in Victoria and New South Wales would be of most direct relevance here, as the legislation pertains to independent rail safety regulation.
- **Funding arrangements for rail safety regulation**
    - There are currently a variety of funding arrangements for rail safety regulation in Australia. The level of cost recovery from operators' accreditation fees enjoyed by the states varies. Some states claim to have full cost recovery (i.e. regulatory functions are constrained by the amount of funds from industry, or conversely industry fees are increased to match the costs of regulatory activity) while Tasmania notes it is unable to operate using cost recovery due to the small size of the network.
- **The options for a single, national rail safety regulatory framework**
    - Feedback about the options has primarily focussed on option 4 for a single, national regulatory body.
    - Option 3 (enhanced state-based regulation) is the optimal state-based model of regulation, although feedback on it could generally be characterised as lukewarm. The Australasian Railway Association does not support option 3 at all. Option 3 is favoured by state officials who do not support a single regulator.
- **Frustration with model legislation**
    - A number of industry stakeholders expressed frustration with the slow pace at which legislation based on the model Rail Safety Bill is being implemented. Industry is also frustrated with the local variations permitted in the model Rail Safety Bill.
- **Rail safety investigation**
    - Industry and union stakeholders are strongly in agreement about the importance of lessons learned from rail safety investigations. Rail safety investigations therefore need to be timely and of a high quality.
    - Rail accidents will often be investigated by a number of parties. Police, the coroner, WorkSafe, the rail safety regulator and sometimes an independent investigator will examine the scene and collect evidence for their own ends. Industry wants to see fewer investigations on site. Any single, national rail safety investigator will not replace investigations by other, unrelated bodies.
    - Investigations are undertaken for a range of reasons and by a range of parties. Not all incidents warrant an independent investigation – many investigations

are undertaken by operators or regulators themselves. Likewise, some states will want to retain the option of a Royal Commission or board of inquiry in the event of a major accident.

## 15.3 How have stakeholders' views been taken into account?

Soon after NTC was directed to prepare this regulatory impact statement early consultation meetings were held with government, industry and the Rail, Tram and Bus Union.

Before the meetings NTC circulated initial thinking on rail safety regulation and investigation principles, and four possible options for a regulator and three for an investigator.

Much of the discussion was around what a national regulator might look like. The discussions helped inform the assumptions made in assessing the options, but some of the issues raised related to detailed operational matters that cannot be resolved until after any decision to pursue a single national regulator is made, and a transition period entered into. Many of these issues are highlighted in section 14.

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## APPENDIX 1: REGULATION

| | Air | Sea | Road | Dangerous Goods | National Single Safety Regulator Models | | International Comparison |
|---|---|---|---|---|---|---|---|
| | **Civil Aviation Safety Authority (CASA)[78]** | **Australian Maritime Safety Authority (AMSA)[79]** | **National Heavy Vehicle Regulator[80]** | **Dangerous Goods Code[81]** | **National Offshore Petroleum Safety Authority (NOPSA)[82]** | **Gene Technology Regulator[83]** | **United Kingdom rail sector[84]** |
| **Reason for creation** | To fulfil international treaty obligations under the external affairs Power of Constitution (relating to a 1967 high court decision) | To provide on request services on maritime issues to the Australian, state and territory governments and their agencies | In order to achieve the vision of a seamless, coordinated transport system, ATC agreed that the best direction for reform would focus on vehicle registration and licensing | There was no mechanism for mutual recognition of decisions made by the state and territory Competent Authorities for managing the transportation of such substances | The Future Arrangements for Regulation of Offshore Petroleum Safety Report, published in 2001, identified a number of shortcomings in the legislative and administrative structures. It recommended the framework of laws be revised, and the regulatory system be restructured by establishing NOPSA | The Gene Technology Act 2000 was developed in consultation with all Australian jurisdictions over a number of years to establish a nationally consistent regulatory system for gene technology | The UK Government announced its intentions for the regulation of rail health and safety together under a single public regulator, the Office of Rail Regulation, will streamline the regulatory system, reduce bureaucracy, and ensure that these issues are looked at as a whole and not in isolation from one another in its White Paper |
| **Objectives** | Conduct the **safety** regulation of civil air operations in Australia and the operation of Australian aircraft overseas. | To be a superior provider of maritime **safety**, marine environment protection, and maritime and aviation search and rescue. | To provide a **safer** travelling environment and reduce regulatory burden on industry. ATC agreed that the target for the regulator must be to deliver:<br>• world-class economic efficiency and safety outcomes in the Australian road freight industry; and<br>• excellent and professional regulatory and compliance services | In the early 1990s ATC agreed that a national process should be established to develop nationally uniform dangerous goods transport legislation. Although the Dangerous Goods Code was adopted under each state and territory's dangerous goods legislation, this legislation varied widely in the duties and obligations placed on persons handling dangerous goods. | The role of NOPSA is to administer offshore petroleum **safety** legislation. The organisation's primary objectives include:<br>• improving health and safety outcomes;<br>• ensuring health and safety regulation is provided to standards that are equal to the best in the world; and<br>• reducing the regulatory burden on industry operating across multiple jurisdictions, by delivering a consistent and comprehensive health and safety regime | To provide a national scheme for the regulation of genetically modified organisms in Australia, in order to protect the health and **safety** of Australians and the Australian environment by identifying risks posed by or as a result of gene technology, and to manage those risks by regulating certain dealings with genetically modified organisms | The Office of Rail Regulation is a combined **safety** and economic regulator. Its objectives are to:<br>• improve health and safety performance; and<br>• secure improved efficiency and performance of the main-line railway |
| **Governance** | Independent Statutory Authority with a chief executive and no Board. CASA, Department of Infrastructure, Transport, Regional Development and Local Government and Airservices Australia constitute a tripartite structure, each with separate and distinct functions. | Statutory Authority with a seven member Board, including the chief executive. Members are drawn from private industry and government. | To be determined | Largely, through consistency with international standards. The Dangerous Goods Unit provides policy advice on national and international dangerous goods matters, along with secretariat support to the Competent Authorities Panel. | Statutory agency with a seven member Board, appointed by the Federal Minister for Resources, Energy and Tourism | Statutory office holder with a supporting office located in Canberra and comprises some 50 scientific, legal, policy, professional and administrative staff. | Independent statutory body with a Board, appointed by the Secretary of State for Transport for a fixed term of up to five years. |
| **Responsible Parliament/ Minister** | Commonwealth Parliament through the Minister for Infrastructure, Transport, Regional Development and Local Government | Commonwealth Parliament through the Minister for Infrastructure, Transport, Regional Development and Local Government | To be determined | The Dangerous Goods Unit also works with the National Transport Commission (NTC) and all states and territories on the maintenance of the Australian Dangerous Goods Code (Road and Rail) and the nationally harmonised regulatory framework. | Accountable to relevant Commonwealth, state and territory Ministers, reporting via the Ministerial Council on Mineral and Petroleum Resources | Accountable to the Gene Technology Ministerial Council and reports to the Commonwealth Parliament | The Office of Rail Regulation's Board is accountable to Parliament. Board members are appointed by the Secretary of State for Transport. This includes the obligation to provide written and oral evidence to Parliamentary committees when required. |

[78] www.casa.gov.au
[79] www.amsa.gov.au
[80] www.atcouncil.gov.au
[81] http://www.infrastructure.gov.au
[82] www.nopsa.gov.au
[83] www.ogtr.gov.au
[84] www.rail-reg.gov.uk

| | Air | Sea | Road | Dangerous Goods | National Single Safety Regulator Models | | International Comparison |
|---|---|---|---|---|---|---|---|
| | **Civil Aviation Safety Authority (CASA)[78]** | **Australian Maritime Safety Authority (AMSA)[79]** | **National Heavy Vehicle Regulator[80]** | **Dangerous Goods Code[81]** | **National Offshore Petroleum Safety Authority (NOPSA)[82]** | **Gene Technology Regulator[83]** | **United Kingdom rail sector[84]** |
| **Funding/ Performance Measures** | In line with Australian government policy, CASA is required to recover costs for providing regulatory services to the aviation industry. CASA began charging for a wider range of regulatory services from 1 January 2006 and must charge fees that reflect the real cost of providing those services. Currently budgeted at approximately $130m, 700 people, 800 accredited operators | AMSA's services are mainly provided on a cost recovery basis from fee and levy revenue sources. It also receives Community Service Obligation funding from the Australian government specifically relating to aviation and maritime search and rescue operations and boating safety education. 2007 income approximately $96 million | To be determined | Guidelines administered by state and territory legislative requirements | Costs of the Authority are recovered from industry in line with the Australian Government's Cost Recovery Guidelines for Regulatory Agencies and the charges have been set accordingly. Total expenditure in 2006-07 was $243 million | The Secretary of the Department of Health and Ageing has financial accountability for the Office of Gene Technology Regulator | The Board of the Office of Rail Regulation must discharge the statutory duties placed upon it by section 4 of the Railways Act 1993.<br><br>The Office of Rail Regulation is funded through a combination of license fees (economic regulation activities) and a railway safety levy (health and safety activities). |
| **Current/ Future Reforms** | Work has begun on the development of a national aviation policy statement. The policy statement will provide greater planning and investment certainty for the industry and provide clear commitments for users of aviation services and communities affected by aviation activity. Governance arrangements, such as the need for a board, may be considered in the future | ATC is investigating a single national system of maritime safety regulation that might see the AMSA take responsibility for regulating commercial and fishing ship: design, construction, equipment, operation, crew certification, and manning. The national system would allow for the option of regulatory services currently being delivered by state and territory maritime agencies. A regulatory impact statement is currently being prepared | Ministers will consider proposals for a single national system for the regulation, registration and licensing of heavy vehicles. Ministers agreed the work is a matter of priority and aim to seek in-principle support of COAG in October 2008 | Considered in line with domestic and international developments | The National Energy Safety Assessment will identify key strategic energy security issues in the liquid fuels, natural gas and electricity sectors currently, and those likely to influence the level of energy security in 5 years (2013), 10 years (2018) and 15 years (2023) | - | The Office of Rail Regulation will conduct the 2008 Periodic Review (PR2008), as a primary means by which it can secure delivery of the vision set out for the main-line railway. |

## APPENDIX 2: INVESTIGATION

| | State-based Investigation | | National Investigation | International Comparison | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | United States | | | |
| | **Office of Transport Safety Investigations (OTSI)[85]** | **Chief Investigator, Transport and Marine Safety Investigations (OCI)[86]** | **Australian Transport Safety Bureau (ATSB)[87]** | **United Kingdom[88]** | **Federal Railroad Administration (FRA)[91]** | **National Transport Safety Bureau (NTSB)[92]** | **Canada[89]** | **European Union[90]** |
| **Reason for creation** | To investigate any safety occurrence affecting the safe operation of freight or passenger trains, or the railway infrastructure within New South Wales. | To investigate public transport safety matters and marine safety matters and to report the results of investigations to the Minister for Public Transport and/or the Minister for Roads and Ports. | To improve transport safety through, among other things, independent investigations of transport accidents and incidents and the making of safety action statements and recommendations that draw on the results of those investigations. | The formation of an organisation to independently investigate railway accidents with the aim of improving safety was recommended in Lord Cullen's inquiry report on the Ladbroke Grove rail accident in 1999. Furthermore, the establishment of the Rail Accident Investigation Branch (RAIB) fulfils the UK's duty to provide an independent rail accident investigation body under the European Railway Safety Directive. | To determine the root cause and identify any contributing factors so that the railroad, FRA or other parties can implement proper remedial action to prevent similar future occurrences. | To determine the probable cause of transportation accidents (typically the most serious or catastrophic events involving loss of life) and to formulate safety recommendations to improve transportation safety. | To advance transportation safety through the investigation of occurrences in the marine, pipeline, rail and air modes of transportation. | To establish a more competitive and safer railway system which covers the entire European Community market instead of confining itself mainly to national markets. |
| **Objectives** | To identify why accidents or safety incidents occur and to make recommendations to prevent recurrence. | Improving public transport and marine safety by independently investigating public transport and marine safety matters. | The Australian Transport Safety Bureau's objective is safe transport. Its mission is to maintain and improve transport safety and public confidence through excellence in:<br>• independent investigation of transport accidents and other safety occurrences;<br>• safety data recording, analysis and research; and<br>• Fostering safety awareness, knowledge and action. | To improve the safety of the railways, and to prevent further accidents from occurring. | To foster a safe railroad environment nationwide. | To improve safety in the nation's transportation system. | The objective of the Transportation Safety Board (TSB) is to conduct independent safety investigations and communicate risks in the transportation system. | Directive 2004/49/EC of the European Parliament aims to create a safer integrated European rail system over its Member States. |
| **Governance** | Independent Statutory Authority with Chief Investigator and no Board. The Chief Investigator is not subject to the direction or control of the Minister for Transport, though the Minister may give a written direction to him/her to investigate a transport safety matter. | Independent Statutory Body with Chief Investigator and no Board. The Chief Investigator is not subject to the direction or control of the Minister for Transport, though the Minister may direct him/her to investigate a transport safety matter. | The Australian Transport Safety Bureau is an operationally independent body within the Australian Government Department of Infrastructure, Transport, Regional Development and Local Government. | The RAIB forms part of the Department for Transport, but is functionally independent. | The FRA is one of ten agencies within the U.S. Department of Transportation concerned with intermodal transportation, | The NTSB is an independent federal investigatory agency, with a five member board. Board Members are nominated by the President and confirmed by the Senate to serve five year terms. | The TSB is an independent agency, separate from other government agencies and departments, with a 5 member board. | Each Member State maintains jurisdiction over their investigatory practices. However, in accordance with the objective Member States are subject to the Directives' definition of common rules for safety investigations. |

[85] http://www.otsi.nsw.gov.au/rail/
[86] http://www.transport.vic.gov.au/DOI/Internet/Home.nsf/AllDocs/C3A5724671F0163DCA2573A1001C867C?OpenDocument
[87] http://www.atsb.gov.au
[88] http://www.raib.gov.uk/home/index.cfm
[89] http://www.tsb.gc.ca/en/index.asp
[90] http://europa.eu/scadplus/leg/en/lvb/l24201a.htm
[91] http://www.fra.dot.gov/us/home
[92] http://www.ntsb.gov/

# APPENDIX 3: DETAILED INFORMATION RELATING TO THE QUANTITATIVE COST BENEFIT ANALYSIS

## Detailed model assumptions and workings

### 1. General model mechanics and status quo assumptions

### Assumptions/ inputs

Historical growth rate in track km travelled over the past 7 years (2001-2007) equates to an approximate Combined Annual Growth Rate (CAGR) of **0.7%**.

Strong correlation **(r>0.9)** exists between Full Time Equivalent (FTE) per jurisdiction and Track activity per jurisdiction (measured in millions of track kilometers travelled). Given the relationship, FTE growth rate is set at **0.7%** pa in line with predicted growth in track activity.

Average costs per FTE on a state level moving forward are consistent with 2007/2008 figures for the respective state.

Unless a trend in non staffing costs is prevalent, or the 2007/2008 figure for non-staff costs has been itemised, an assumption has been made that each regulator has general operational expenditure /admin /overhead costs at a rate of **50%** of staff costs.

For Investigator forecasts, using the Australian Transport Safety Bureau as the model, operational expenditure/admin/overheads are set at **22%** of staff costs unless the investigator has provided a figure or one is able to be derived.

Accreditation fees paid by operators are derived using the cost recovery assumptions of each state applied to the regulator costs of each appropriate state. These state wide values are then summed in order to provide a final figure for total compliance costs paid by industry.

These costs are then added to the costs of safety compliance to industry stated in the Synergies Economic Consulting report (approximately $42 million) to reach a total cost figure (prior to the elimination of any inter-jurisdictional costs of compliance)

### Benefits

A safety improvement factor of -1.33% (representing the CAGR in incidents from 2007 to 2017 based on the logarithmic trend line fitted to incident data).

This factor is applied to the incident levels to generate forecasts in incident numbers. The difference between the baselined incident numbers (from 2001) and the forecast incident numbers is multiplied by the cost of a rail safety incident to determine safety benefits in dollar terms.

The Costs of Rail Safety Incidents from the 1999 Bureau of Transport and Regional Economics report “Rail Accident costs in Australia” (report 108) are inflated to 2007 figures using the appropriate CPI factors. These are then divided by the number of incidents in 2007 to determine the cost per rail safety incident used in the aforementioned calculation.

### 2. Enhanced state-based regulation

The only notable variance from the status quo is the assumption of an elimination of 50% of inter-jurisdictional costs of compliance.

### 3. Single national regulator

**Ongoing costs**

Average staff costs per FTE on the single national regulator forecast is the average of the cost per FTE figures across all regulators that supplied data.

The total number of FTE's under the single national regulator has not been varied, with the 2008 total FTE numbers maintained per the ATC decision and NTC principles.

Consistent with the above, additional costs of general operational expenditure/admin/ overhead costs are assumed at **50%** of total staff costs across all offices (these have not been broken down or allocated on a geographical / jurisdictional level, but rather represents a holistic estimate across all localised offices that will be in existence).

### 4. Start-up Costs

A cost of **$38 million** has been factored in as the initial expenditure needed to set up a national regulator and get it operational. This number is based on rough estimates of the costs involved in the setup at inception of the New South Wales Independent Transport Safety and Reliability Regulator (ITSRR). This estimate was roughly $5.5 million and covered:

- project team 8 people for 9 months;
- office fit-out;
- recruitment, including selected executive search, advertising, agency short listing;
- initial induction and skills training;
- Information technology data base (initial build only);
- records database;
- legal advice;
- legal advice for industrial changes; and
- strategic communication with industry.

Costs for the "transmission" of existing staff and their employment conditions would also be included in the transition to a single national rail safety regulator, as would costs associated with legislative changes.

Given ITSRR is the most resourced and has the largest regulatory staff, it will be used as a model for each other jurisdiction for setup only. Applying this methodology equates to approximately $38 million in nationwide setup costs. The single national investigator setup is assumed at approximately $10 million.

### Cost Savings

The recently released Synergies Economic Consulting report highlights the existence of inter-jurisdictional compliance costs in the vicinity of **$10,408,475.** It is conservatively assumed that **80%** of these inter-jurisdictional costs of compliance will be eliminated with the introduction of a single national regulator.

### Cost recovery and accreditation fees

A cost recovery of 100% is assumed. Thus in calculating accreditation fees paid by operators, full cost recovery of the forecast costs of regulation administration is modelled. Any accreditation fees over the level paid under the status quo are also added as costs to industry (or vice versa). A sensitivity analysis is conducted on this cost recovery variable in order to observe net present value responsiveness to its magnitude.

### Benefits

A rail safety reduction improvement factor of -1.83% is assumed (representing an 0.5% premium over the status quo safety improvement)

A sensitivity analysis is conducted on this factor to determine the effects on the ten year net present value of varying its magnitude.

# Regulator costs and benefits summary (over ten year horizon)

| | Initial Expenditure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Status Quo** | | | | | | | | | | | |
| **Costs** | | | | | | | | | | | |
| Regulator Costs | | 27,369,046 | 27,552,058 | 27,736,294 | 27,921,762 | 28,108,470 | 28,296,426 | 28,485,640 | 28,676,118 | 28,867,871 | 29,060,905 |
| Industry Costs | | 52,638,713 | 52,713,283 | 52,788,351 | 52,863,922 | 52,939,998 | 53,016,583 | 53,093,679 | 53,171,292 | 53,249,423 | 53,328,077 |
| Net Costs | | 80,007,759 | 80,265,341 | 80,524,645 | 80,785,684 | 81,048,468 | 81,313,009 | 81,579,319 | 81,847,410 | 82,117,293 | 82,388,981 |
| **Benefits** | | | | | | | | | | | |
| Safety Benefits | | 71,933,123 | 75,250,064 | 78,522,907 | 81,752,239 | 84,938,639 | 88,082,676 | 91,184,915 | 94,245,911 | 97,266,213 | 100,246,361 |
| Accreditation Fees Received | | 11,151,775 | 11,226,345 | 11,301,413 | 11,376,984 | 11,453,060 | 11,529,645 | 11,606,741 | 11,684,354 | 11,762,485 | 11,841,139 |
| Total Benefits | | 83,084,898 | 86,476,408 | 89,824,320 | 93,129,223 | 96,391,698 | 99,612,321 | 102,791,657 | 105,930,265 | 109,028,698 | 112,087,499 |
| **Net Benefits / (Costs)** | 0 | **3,077,139** | **6,211,067** | **9,299,675** | **12,343,539** | **15,343,231** | **18,299,312** | **21,212,338** | **24,082,855** | **26,911,404** | **29,698,518** |
| **NPV** | **$105,403,725** | | | | | | | | | | |
| **Discount Rate** | ***7%*** | | | | | | | | | | |
| **Enhanced State Based** | | | | | | | | | | | |
| **Costs** | | | | | | | | | | | |
| Regulator Costs | | 27,369,046 | 27,552,058 | 27,736,294 | 27,921,762 | 28,108,470 | 28,296,426 | 28,485,640 | 28,676,118 | 28,867,871 | 29,060,905 |
| Industry Costs | | 47,434,475 | 47,509,045 | 47,584,114 | 47,659,685 | 47,735,761 | 47,812,345 | 47,889,442 | 47,967,054 | 48,045,186 | 48,123,839 |
| Net Costs | | 74,803,522 | 75,061,104 | 75,320,408 | 75,581,447 | 75,844,231 | 76,108,772 | 76,375,082 | 76,643,173 | 76,913,056 | 77,184,744 |
| **Benefits** | | | | | | | | | | | |
| Safety Benefits | | 71,933,123 | 75,250,064 | 78,522,907 | 81,752,239 | 84,938,639 | 88,082,676 | 91,184,915 | 94,245,911 | 97,266,213 | 100,246,361 |
| Accreditation Fees Received | | 11,151,775 | 11,226,345 | 11,301,413 | 11,376,984 | 11,453,060 | 11,529,645 | 11,606,741 | 11,684,354 | 11,762,485 | 11,841,139 |
| Total Benefits | | 83,084,898 | 86,476,408 | 89,824,320 | 93,129,223 | 96,391,698 | 99,612,321 | 102,791,657 | 105,930,265 | 109,028,698 | 112,087,499 |
| **Net Benefits / (Costs)** | 0 | **8,281,376** | **11,415,305** | **14,503,912** | **17,547,776** | **20,547,468** | **23,503,549** | **26,416,575** | **29,287,093** | **32,115,642** | **34,902,755** |
| **NPV** | **$141,956,110** | | | | | | | | | | |
| **Discount Rate** | ***7%*** | | | | | | | | | | |
| **Single National Regulator** | | | | | | | | | | | |
| **Costs** | | | | | | | | | | | |
| Regulator Costs | 38,000,000 | 25,573,767 | 25,744,775 | 25,916,926 | 26,090,228 | 26,264,688 | 26,440,316 | 26,617,118 | 26,795,102 | 26,974,276 | 27,154,648 |
| Industry Costs | | 58,733,926 | 58,904,933 | 59,077,084 | 59,250,386 | 59,424,847 | 59,600,474 | 59,777,276 | 59,955,260 | 60,134,434 | 60,314,807 |
| Net Costs | 38,000,000 | 84,307,693 | 84,649,708 | 84,994,010 | 85,340,614 | 85,689,535 | 86,040,790 | 86,394,394 | 86,750,362 | 87,108,710 | 87,469,455 |
| **Benefits** | | | | | | | | | | | |
| Safety Benefits | | 73,197,410 | 77,738,700 | 82,196,908 | 86,573,556 | 90,870,135 | 95,088,109 | 99,228,918 | 103,293,972 | 107,284,658 | 111,202,336 |
| Accreditation Fees Received | | 25,573,767 | 25,744,775 | 25,916,926 | 26,090,228 | 26,264,688 | 26,440,316 | 26,617,118 | 26,795,102 | 26,974,276 | 27,154,648 |
| Total Benefits | | 98,771,177 | 103,483,474 | 108,113,834 | 112,663,784 | 117,134,823 | 121,528,425 | 125,846,036 | 130,089,074 | 134,258,934 | 138,356,984 |
| **Net Benefits / (Costs)** | **(38,000,000)** | **14,463,484** | **18,833,766** | **23,119,824** | **27,323,170** | **31,445,288** | **35,487,635** | **39,451,642** | **43,338,712** | **47,150,224** | **50,887,529** |
| **NPV** | **$179,059,022** | | | | | | | | | | |
| **Discount Rate** | **7%** | | | | | | | | | | |

## Investigator costs summary (over ten year horizon)

| | Initial Expenditure | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Status Quo** | | | | | | | | | | | |
| **Costs** | | | | | | | | | | | |
| Investigator Costs | | 2,194,114 | 2,208,785 | 2,223,555 | 2,238,424 | 2,253,392 | 2,268,460 | 2,283,629 | 2,298,899 | 2,314,271 | 2,329,746 |
| **NPV** | **($15,824,030)** | | | | | | | | | | |
| **Discount Rate** | ***7%*** | | | | | | | | | | |
| **Single National Investigator** | | | | | | | | | | | |
| **Costs** | | | | | | | | | | | |
| Investigator Costs | 10,000,000 | 2,150,522 | 2,164,902 | 2,179,379 | 2,193,952 | 2,208,622 | 2,223,391 | 2,238,258 | 2,253,225 | 2,268,292 | 2,283,460 |
| **NPV** | **($25,509,645)** | | | | | | | | | | |
| **Discount Rate** | ***7%*** | | | | | | | | | | |

## APPENDIX 4: GOVERNANCE AND TRANSITION ISSUES CONSIDERED IN ESTABLISHING NATIONAL SAFETY REGULATOR FOR OFFSHORE OIL AND GAS OPERATIONS

[Excerpted from *http://www.nopsa.gov.au/downloads/Final_Communique_Sept02.pdf*]

**Recommendation**

It is recommended that the Ministerial Council:

1. note that reviews of Australia's offshore safety regulatory regime have called for improvements;
2. note the work conducted by the Steering Committee working groups in response to the Terms of Reference agreed by the Standing Committee of Officials; namely on institutional form, legislative improvement and technical improvement;
3. endorse the recommendations of the Standing Committee of Officials namely:
    i. That safety of offshore petroleum activities in Commonwealth and State/NT coastal waters should be regulated by a single national authority.
    ii. That this authority be formed under legislation so that:
        - it is an independent statutory authority with a board, accountable to Commonwealth and State/NT Ministers either jointly and/or separately as individual jurisdictions require;
        - decisions on Board composition and membership, and the initial chief executive officer to the authority are undertaken by all participating governments;
        - Ministers' responsibilities are to be met by statutory requirement for their review of the Authority's performance.
    iii. That the authority is set up so that it may, if jurisdictions wish to provide it with appropriate regulatory powers, undertake safety regulatory activities in other areas of State/NT jurisdiction.
    iv. Consideration be given to including environment regulation [as required under the Commonwealth and State/NT P(SL)A] if agreeable to jurisdictions, and if this does not delay the commencement of the safety authority, and to progress this the Council give a direction to the Steering Committee to develop a process and a timetable to establish how this will be done. The Steering Committee to provide a report by 20 December 2002.
    v. That effective and efficient coordination is established between the safety authority and other regulatory agencies.
    vi. That the legislative Drafting Instructions to support the above be developed by the Steering Committee for Ministerial Council approval by end June 2003.
    vii. That the authority's operations are fully funded on a cost recovery basis by an industry safety fee.

viii. That a new fees agreement be developed by the Commonwealth and States/NT ensuring the amount DAs receive in revised industry fees, once the safety regulation function is transferred to the safety authority, is no less than they received during 2001-02 and determined on the basis of cost recovery principles.

ix. That an appropriate transitional plan which maintains the integrity of the current regime is implemented after agreement by all jurisdictions which minimises adverse impacts on staff, industry and regulatory responsibilities and liabilities to the DAs. The Commonwealth/States/NT agree to jointly take responsibility for managing the transition and any costs incurred by the States/NT on a cost sharing basis.

x. That the recommended priorities for improving the existing legislation and technical aspects of safety regulation as provided in the Working Group Reports be implemented as soon as practicable in parallel with the development of the statutory authority.

xi. That SCO provide six monthly reports to Ministerial Council on progress on implementing the technical and legislative improvements, and on the development of the statutory authority;

4. endorse the recommendations proposed by the Working Groups, including the proposed process for establishing the single national offshore safety authority by the end of 2004;

5. endorse the formation of the national safety authority as a statutory authority under new provisions of the P(SL)A; and

6. request the Standing Committee of Officials to provide a report to Ministerial Council by 15 October 2002 so that Council can decide, out of session, on the residual issue of whether the legal entity of the joint statutory authority should be established under Commonwealth legislation or under each of the Commonwealth/States/NT legislation.

# APPENDIX 5: ASSESSMENT OF OPTIONS AGAINST THE PROBLEMS

To provide stakeholders with an evaluation of how these options will address the problems outlined in sections 4 and 10. The following is a more detailed discussion of the components of each option that aim to improve the identified problem.

## Regulator

**Independence:** A lack of independence in some jurisdictions is inconsistent with best practice regulation.

Currently, there are two regulators considered to be independent of their state government. The status quo does not address this and enhanced status quo goes some way to addressing this issue, however jurisdictions have the option of tailoring the implementation of the model Rail Safety Bill, the national guidelines and standards, which offers some opportunity for disallowing a fully independent approach. Enhanced state-based regulation specifies that regulators will be independent of Ministers, funding bodies, operators, policy setters and investigators. The single regulator allows for each of the aforementioned components with an additional capacity for implementing improvements in accordance with single body principles.

**Transparency:** A lack of transparency in some jurisdictions may discourage independence and provides unnecessary opportunities for ill-conceived regulation.

There are currently inconsistent arrangements across jurisdictions for transparent disclosure of incidents and reporting requirements. Status quo does not address this. Enhanced status quo does address this problem with the obligation to implement the model Rail Safety Bill, the national guidelines and standards, along with the requirement of fully resourcing each regulator. Enhanced state-based regulation goes further again with full mutual recognition and statutory oversight of consistency. A single regulator addresses this problem directly by allowing for single body principles and one set of transparency processes.

**Intervention**: The current regulatory arrangement does not provide for a consistent understanding of co-regulatory principles, accounting for different levels of regulatory intervention, thereby creating an unclear and uncertain environment for operation.

The status quo does not directly address this problem, however it does allow each jurisdiction the opportunity to influence operators' safety management systems to their specifications as required. Enhanced status quo provides for increased resourcing of each jurisdiction and with national guidelines and standards, it is conceivable that a more consistent level of intervention between jurisdictions is achievable. Enhanced state-based regulation also provides an opportunity for full mutual recognition and one-stop-shop for operators on the safety management system delivery, allowing for consistent monitoring of intervention implications. A single regulator will allow for a consistent level of intervention across the nation.

**Resourcing**: The current regulatory arrangement does not provide for a consistent connection between rail safety and the amount of funding used to manage each jurisdiction's regulation and there appears to be no justification for the variance.

The status quo currently managed this problem by allowing jurisdictions to implement safety measures efficiently without the need for considering the implications for neighbouring states or territory. Enhanced status quo does address this problem by prescribing the full resourcing of each jurisdiction. Enhanced state-based regulation also allows for full resourcing, along with significant governance improvements and statutory oversight of consistency. A single regulator removes the need for separate resourcing requirements and condenses these into one body, catering for a best a practice approach to funding and safety measures.

**Reform**: A multi-jurisdictional regime inhibits the capacity to effectively respond to national concerns in a consistent manner.

The status quo does not cater for efficient reform processes, currently the Rail Safety Regulators Panel meets regularly to discuss issues, however it has rotating leadership and does not have an official capacity for implementing change. Enhanced status quo implements the national guidelines and standards, which aim to address long-term reforms in accreditation and safety management systems. Enhanced state-based regulation also provides for process and governance improvements that will allow for "heads of regulators" to have a decision making mechanism. A single regulator will allow for a single set of processes for reforms, which would arguably be more efficient in the delivery best practise safety management system improvements.

**Knowledge sharing**: The current regulatory arrangements do not provide for formalised knowledge sharing and hinders the safety benefits arising from collaborative efforts.

The status quo does not address this and it is likely at the jurisdiction's discretion whether information is exchanged. Enhanced status quo addresses this through the implementation of model Rail Safety Bill, along with the adjusted resourcing arrangements and the uniform accreditation requirements. Enhanced state-based regulation provides process and governance improvements which will streamline the compilation and distribution of relevant information that may assist jurisdictions better deliver safety measures. A single regulator will receive and distribute knowledge at a central point allowing for a more fee flowing exchange of information.

**Expertise**: A multi-jurisdictional regime provides for the unnecessary duplications and the inefficient deployment of expertise which may allow for complications in safety delivery.

The status quo fosters duplication of expertise by requiring each jurisdiction to employ staff to cover similar functions as their neighbouring states or territory. Enhanced status quo has the potential to require additional expertise in some jurisdictions, while others will maintain current levels of staffing. Enhanced state-based regulation also provides for assurances of independence and a statutory oversight capacity, which could potentially require additional staff. A single regulator removes this duplication by placing the bulk of expertise under a single body, while possibly providing local representatives in each jurisdiction to cater for geographic specifics.

**Data collection and analysis**: Inconsistent data collection arrangements are counter-productive for safety and meeting sound risk management measures.

The status quo does not address this issue. Enhanced status quo provides a full resourced regulator in each jurisdiction, which includes a capacity to collect, analyse and publish rail safety data. Enhanced state-based regulation also provides for additional resourcing along with the governance and process improvements to provide a one-stop-shop for operators. The single regulator provides one set of processes to govern the sector, thus allowing for a dedicated mechanism for data collection, analysis and distribution.

**Jurisdictional costs**: The delivery costs of multi-jurisdictional regulators are vastly different and provide for varying levels of intervention thus providing unnecessary costs.

The status quo does not change this situation; however the administrative infrastructure is well established. Enhanced status quo requires implementation of the model Rail Safety Bill, investment to fully resource each jurisdiction and adoption of the national guidelines and standards. Enhanced state-based regulation also requires process and governance improvements, statutory oversight of consistency with an enhanced legislation maintenance program. The single regulator removes administration costs from jurisdictions by providing one set of processes in accordance with single body principles, however it may require additional investment at commencement.

**Industry cost**: By allowing for a lack of uniformity, inconsistent approaches to accreditation, audit and compliance, and imposing a requirement for interstate operators to deal with multiple regulators, rail industry's competitiveness is constrained.

The status quo does not provide for change to current industry costs. Enhanced status quo provides benefit for operators by introducing the national guidelines and standards, which would provide uniformity of accreditation arrangements. Enhanced state-based regulation also provides for full mutual recognition across all jurisdictions and a one-stop-shop for administrative requirements. The single regulator removes duplication and operators are able to address a single body with any enquiry and provides for certainty of safety management systems and accreditation processes across jurisdictions.

**Modal competition**: Other modes have regulatory and institutional arrangements governing safety that are superior to those governing rail, thereby putting rail at a competitive disadvantage.

The status quo does not address the capacity for change in order to compete with other transport modes. Enhanced status quo provides introduction of the national guidelines and standards, which would address the variances in pricing regimes and operator cost associated with interstate freight movements. Enhanced state-based regulation would also provide a "heads of regulator" group to address legislative inconsistencies that may address some issues impeding competition for rail. The single regulator provides for one set of processes and single body principles allow for more efficient delivery of change and refinement of anti-competitive forces within the sector.

**Future growth**: Given current projections of growth in the Australian freight task it would be a requirement for all modes to operate as efficiently as possible. Current arrangements have proved the rail sector is not adequately prepared for anticipated growth.

The status quo is currently displaying the rail sector's ability to deal with a growing freight task and does not appear to be improving their processes to deal with this change efficiently. Enhanced status quo allows for all regulators to become fully resourced and by adopting the national guidelines and standards are better equipped to manage any required change efficiently. Enhanced state-based regulation also provides for improved process and governance arrangements and statutory oversight consistency which is directly designed to more efficiently manage inconsistencies across the sector, thus providing additional capacity for growth. The single regulator removes current impediments to growth by allowing for a single accreditation process and providing operators one set of processes to manage, which would seek to allow for continued operator expansion.

### Investigator

**Independence**: By not having independent investigators, legitimate arguments about bias in the process could be raised.

The status quo does not provide for investigatory independence in all jurisdictions, this is counter to productive to achieving a no blame investigation process. Enhanced status quo has a requirement that each of the investigators be independent and comprehensive legislation be introduced. A single national investigator would be independent of any jurisdiction in accordance with single body principles.

**Transparency**: By allowing for variations in reporting systems the ability to learn from investigation outcomes in the same country is compromised.

The status quo does not address transparency as there are variations in reporting and auditing requirements across jurisdictions. Enhanced status quo requires that all jurisdictions implement comprehensive legislation on no blame investigation processes, formalised resource sharing and cost recovery arrangements. A single national investigator would operate within the single body principles with a view to achieving best practice rail safety measures.

**Governance**: protocols are needed to ensure that report findings are released on a collaborative basis, allowing all parties an opportunity to consider outcomes.

The status quo includes a variety of legislative frameworks and practices implemented by each jurisdiction. Enhanced status quo will allow for comprehensive legislation, formalised resource sharing arrangements and cost recovery. The single national investigator will provide a different governance model with single body principles, comprehensive legislation for each jurisdiction, local representation with operations coordination at a central point that aims to maximise potential operational synergies.

**Timeliness**: Inconsistent timing for investigation reporting allows the opportunity of evidence and evaluation contamination, and thus delays implementation of recommended improvements.

The status quo does not address this issue and investigation arrangements are different in each jurisdiction. Enhanced status quo provides consistent legislative arrangements and formalised resource sharing arrangements, which would streamline the evaluation of each incident and allow for investigators to assist where required in the event of a serious

incident. The single national investigator will provide one set of investigation and reporting guidelines across the nation with a central operations base to assist in coordinating local representation at each incident in a timely manner.

**Collaborative activities**: Current investigation arrangements provide inconsistent opportunities for resource sharing and a collaborative approach to investigation.

The status quo does not address this as currently two jurisdictions have dedicated investigatory services; all others provide an ad hoc service with the assistance of the Australian Transport Safety Bureau or other parties. Enhanced status quo will provide an opportunity for each jurisdiction to compare their activities as they would be implementing the one piece of legislation and the formalised resource sharing arrangements will allow for an efficient exchange of information and resources. The single national investigator will provide one body to manage the investigatory process and the need to coordinate activities is removed.

**Resourcing**: There is an inefficient deployment of qualified resources to effectively evaluate incidents in a timely manner.

The status quo currently requires a duplication of qualified personnel across jurisdictions; however these arrangements often deliver an efficient response to the requirement for an incident investigator as they are usually physically closer to the area of rail affected. Enhanced status quo provides for formalised arrangements for resources sharing and therefore would cater to best practice coordination between jurisdictions and ensuring that appropriate resources are deployed at the time of most need. The single national investigator would utilise a central point of coordination of local representatives, remove the duplication of qualified personnel, and in line with single body principles allow for efficient deployment of resources as required.

**Data collection and analysis**: Data collection takes place in each jurisdiction and is published centrally, which potentially inhibits the possibility of delivering the most informed recommendations for improvement.

The status quo does not address this. Enhanced status quo provides comprehensive legislation across jurisdictions, along with formalised arrangements for resource sharing and cost recovery. The single national investigator will address this by requiring the provision of information to one body and therefore aiming to maximise potential operational synergies across agencies.

# APPENDIX 6: DATA SOUGHT FROM STAKEHOLDERS

This appendix below provides an outline of the data sought for this impact analysis and how this data was sourced.

The assessment of the costs and benefits of the proposed options is based on assessing the current activity of regulators and investigators and the costs to industry of these activities. Where it was possible stakeholders were asked to identify duplication costs or inefficiencies caused by the current system. Data from the stakeholders was also sought on quantifiable benefits that would accrue to rail safety if a single national system was adopted.

We sought data from five distinct groups.

- Government;
- Regulators;
- Investigators;
- Industry organisations; and
- Operators.

Each of the identified stakeholder groups have different roles to play in the regulatory environment the data sought from each of these groups varied. The section below outlines the information that was sought from the various stakeholder groups.

**Data sought by Stakeholder Group**

**Government**

The information sought from Government Departments related to the overall annual rail safety budget allocation. Government Departments were asked to further break down between Government owned rail operators, rail safety regulator, and within Government Departments on rail safety policy.

Information was also sought on Government policy on rail accreditation fees, how these are currently charged, whether this is a “full cost of regulation recovery” basis and what the Government’s view would be on accreditation fees under a single national rail safety regulation and investigation framework. If full cost recovery was not the Government’s policy, the percentage breakdown of the accreditation fees recovered to the cost of providing the regulation was also requested.

Information was sought on the number of accredited rail operators and track managers in each jurisdiction and the number of staff and average per staff cost of the regulation and rail safety policy functions.

Governments were also asked, where possible, to provide the requested data on an annual basis and, where possible, for figures for last three successive financial years.

**Regulators**

The information sought from Regulators related to their annual expenditure on rail safety regulation. This information was sought in relation to both costs incurred in regulating and activity data.

Some of the specific information sought from Regulators included the number of staff employed, the average cost of FTE staff member, and the organisational structure of the Regulator. This input cost data was sought to ensure that wherever possible similar information was considered. This was due to the large differentials between the expenditure on rail safety regulation between the states and concerns identified by some jurisdictions about the cost per staff in other jurisdictions and the differentials between staff salaries and grading.

To ensure that appropriate consideration could be given to options two and three (the enhanced status quo) information was sought on how the staffing, structure and costs of regulation may change once the national model rail safety legislation is introduced. It should be noted that the introduction of the national model bill is a commitment that all Governments have made and not all have met.

The data sought on activity of the regulator includes an estimate of the time spent on each of the major regulation activities – accreditation, compliance, investigation and training. The advice of the Regulators was sought on whether data could be provided on the number of audits performed by the regulator, the average length of time (and number of staff involved) required for an audit as well as an overview of the accreditation process and an estimate of time taken for the accreditation of a urban passenger operator, a long distance passenger operator, a medium sized freight operator, and a track manager. In requesting this information we were mindful of views expressed by Regulators regarding the different nature of audits undertaken (from annual full compliance audits to targeted audits) and the relationship of regulatory activity to the safety systems and operational maturity of operators.

Further information was also sought on the number of accredited rail operators and track managers, the number of staff, and average per staff cost of the regulation and rail safety policy functions within regulators.

Where possible the regulators were asked to provide this data on an annual basis for the last three successive years.

**Investigators**

The data sought from investigators related to their current annual expenditure on rail safety investigations. Specifically, investigators were asked for information on their number of staff and organisational structure, the average FTE staff cost, the average cost per investigation undertaken, as well as the number of investigations undertaken per year. In the jurisdictions where there was not a specific investigator information was sought relating to expenditure on investigations from regulators (both internally and through independent third parties) as part of their expenditure on rail safety regulation.

In requesting this information it was recognised that there are different levels of investigation undertaken. In order to gain a more detailed understanding of these types of investigation and the operations of the investigators, the states were asked for an explanation of the types of investigation and the average cost of each category of investigation.

An example of how this information was sought follows. The investigators were asked to clarify whether systemic investigations were undertaken in line with a statutory provision, whether accident investigations under a statutory provision were undertaken internally, or whether direct operators were directed to undertake investigations and provide reports to the investigators for their review and assessments of completed recommendations. Information was sought on the costs, or where this wasn't possible, for estimates, in each of the categories of investigation.

Where possible, the requested data were sought on an annual basis for the last three successive years.

**Operators**

The data sought from operators related to the business costs of complying with regulation and accreditation requirements. One focus of this is variations in the cost of complying with regulation and accreditation requirements to operators who are accredited in multiple jurisdictions. This information was sought to identify, where possible, the costs associated with different regulatory approaches and to assess whether the nature of the regulator, the various states rail system, or the operator could be seen to influence the costs of regulation.

To this end operators were asked to provide any information available to them on duplicated costs and functions to their business caused by multiple jurisdiction operations and having to comply with different regulatory requirements in each of these jurisdictions. To ensure the best information available is considered, operators were asked for as much detail as was available to them on these costs, including personnel, average FTE costs, percentage of time spent on complying with regulation and accreditation requirements.

Information was also sought from operators on whether the costs of accreditation varies between jurisdictions, the nature of any variations in these charges and for their advice on whether these charges reflect the nature of their business or variations in policy/regulatory strategy between the jurisdictions.

To support our focus on activity and outputs, operators were asked for information on whether the operational costs of compliance with regulators requirements varies between jurisdictions (including the number of audits performed on their business [annual, 6 monthly, 24 monthly or otherwise] and an estimate of the costs to their business of these audits including personnel time in preparation and compliance).

Operators were also asked for data on whether they could quantify the savings that would flow to their business if there was single national rail safety regulation framework. This information was sought on whether the savings forecast would be achieved in comparison to the current costs incurred, or whether the expenditure could focus outward to operational safety performance rather than inward to regulatory compliance if a single national regulator was operating.

Other information that was sought, where available, related to current risk assessment processes, and whether these require variation and tailoring to meet the requirements of regulators. Advice as to whether the organisations risk profile, and regulatory compliance costs were likely to change once the national model rail safety legislation is enacted and whether this change could be quantified was also sought. The operator's perspective on the key drivers of economic performance improvement was also sought.

Where possible, the requested data was collected/available through annual figures for last three successive years.

**Industry**

The information sought from the industry related both to the current costs and potential saving to industry that would flow from a single national rail safety regulation and investigation framework. The Australasian Railway Association was asked for their views on whether there was economic data held in relation to the costs and benefits of the single national regulation and investigation framework.

To ensure that we gained as good an understanding on the case the Australasian Railway Association was putting forward in support of a single national rail safety regulator a series of detailed questions were put to the Australasian Railway Association. In their response the Australasian Railway Association provided a detailed submission and was generous with their offer of further assistance and assistance on obtaining information from the industry.

The information sought relates to whether there are data – reports, research, analysis – that provide an argument around the economic benefits (in terms of safety – number of incidents, activity – improved standards of operation etc) that would flow from a single national regulation and investigation framework. The advice of the Australasian Railway Association on where this information may be found was also sought.

The data the analysis was designed to focus on from the industry were the approximate annual cost of meeting regulatory requirements for the rail industry including how this could be broken down by jurisdictions, what their understanding of the variation in spending between jurisdictions was, whether any variation between jurisdiction was based on the nature of the industry in that jurisdiction or the difference in regulatory requirements and the operation of the regulator.

To support the analysis of these data information was sought on the number of staff in this industry whose primary role is to ensure compliance with accreditation standards and regulatory requirements amongst rail operators and track managers. To further inform the understanding of the industry from an operational perspective, information was requested regarding where staff were located, both physically and in the corporate structure, whether these staff work solely on safety and whether the duplication of functions occurs due to that nature of the operations of the companies or as a response to regulatory requirements.

As part of the quantitative analysis of the financial as well as the economic costs of rail safety regulation the industry was also asked to provide any data available on the likely cost savings to industry that would be achieved if there was a single national rail safety regulator. If possible a breakdown of these benefits by operator was sought.

Also, due to the importance of the qualitative arguments relating to the benefits that may be derived from a single national rail safety regulation framework (and a single national investigator) the industry was asked to clarify the benefits sought by the rail industry of a national rail safety regulator (other than costs).

Some of the other specific information sought from the industry related to: variations in access and accreditation fees between the jurisdictions; the principles sought from access and accreditation fees currently; and the Australasian Railway Association’s view on appropriate for fee schedules under a single national regulator.

To ensure that the discussions remained focused on the task at hand the Australasian Railway Association’s advice was requested on the essential principles a single national

rail safety regulator should embody, bearing in mind the regulator would be implementing the national model rail safety bill in a co-regulatory manner.

Consistent with the other data gathering requests it was asked that, where possible, the requested data could be provided on an annual basis and for the last three successive years.