

National Transport Regulatory Reform Productivity Commission Inquiry Report Overview & Recommendations

No. 94, 7 April 2020

## © Commonwealth of Australia 2019

ISSN 1447-1329 | 1447-1337 ISBN 978-1-74037-695-2 (PDF) ISBN 978-1-74037-694-5 (Print)



Except for the Commonwealth Coat of Arms and content supplied by third parties, this copyright work is licensed under a Creative Commons Attribution 3.0 Australia licence. To view a copy of this licence, visit http://creativecommons.org/licenses/by/3.0/au. In essence, you are free to copy, communicate and adapt the work, as long as you attribute the work to the Productivity Commission (but not in any way that suggests the Commission endorses you or your use) and abide by the other licence terms.

## Use of the Commonwealth Coat of Arms

Terms of use for the Coat of Arms are available from the Department of the Prime Minister and Cabinet's website: <a href="https://www.pmc.gov.au/government/commonwealth-coat-arms">www.pmc.gov.au/government/commonwealth-coat-arms</a>

# Third party copyright

Wherever a third party holds copyright in this material, the copyright remains with that party. Their permission may be required to use the material, please contact them directly.

# **Attribution**

This work should be attributed as follows, Source: Productivity Commission, National Transport Regulatory Reform, Inquiry Report.

If you have adapted, modified or transformed this work in anyway, please use the following, *Source: based on Productivity Commission data, National Transport Regulatory Reform, Inquiry Report.* 

## An appropriate reference for this publication is:

Productivity Commission 2020, National Transport Regulatory Reform, Report no. 94, Canberra.

# **Publications enquiries**

Media, Publications and Web, phone: (03) 9653 2244 or email: mpw@pc.gov.au

# **The Productivity Commission**

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

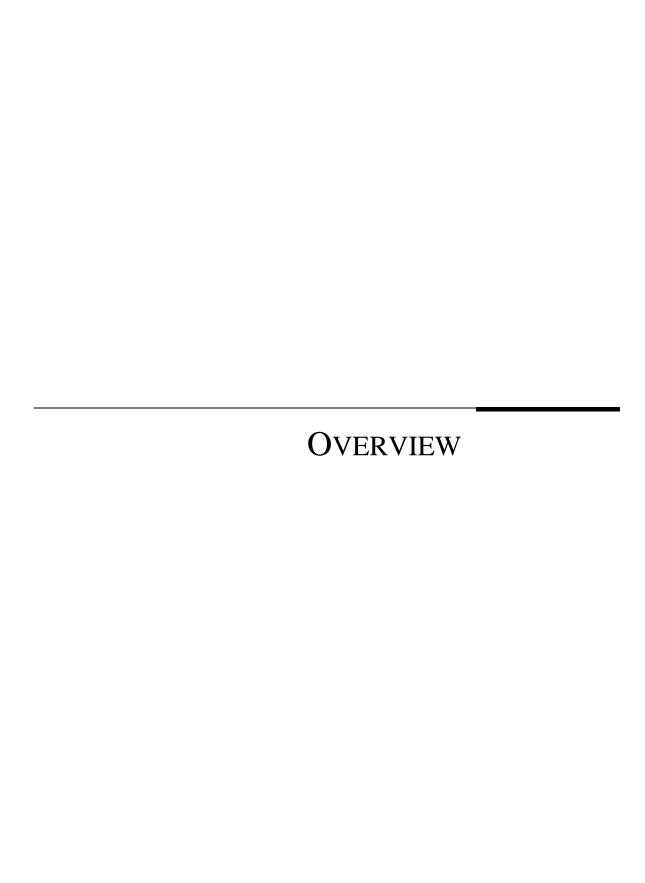
The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

# Contents

Overview	1
Key points	2
Findings and recommendations	21

Full report: https://www.pc.gov.au/inquiries/completed/transport/report



# **Key points**

- COAG's harmonisation reforms established national laws and national regulators for heavy vehicles, rail, and domestic commercial vessels.
- After almost a decade, the transition is nearly complete, albeit with some unfinished business:
  - Western Australia and the Northern Territory do not participate in the national heavy vehicle regime
  - unnecessary derogations from the Heavy Vehicle National Law (HVNL) and Rail Safety National Law (RSNL) continue
  - some grandfathering provisions applying to domestic commercial vessels pose safety risks
  - approval processes for heavy vehicle access to local roads still lag in some areas.
- By most measures, heavy vehicle and rail safety continue to improve, largely due to new technology and infrastructure investments.
- Safety regulation across the three modes is a mix of prescriptive and outcomes-based regulation. Amending safety regulation to create a more flexible, outcomes-based approach should improve safety and lift productivity.
- The COAG reforms were expected to unlock large efficiency gains for heavy vehicle operators. While gains have been made, the forecasts were optimistic and have not been achieved.
  - Road access for larger, more efficient trucks has improved, but significant bottlenecks remain on some major freight corridors.
- There are significant opportunities for COAG, regulators and industry to further promote safety and productivity.
  - Striking a balance between prescription and outcomes-based approaches in safety regulation:
    - amending the HVNL to allow further progress to a tiered system, where operators can choose to follow prescriptive regulation or to develop more flexible and efficient ways to manage safety risks with the regulator's approval
    - ··· removing unnecessary prescriptive detail from the HVNL.
  - Emphasising risk-based approaches to improving safety and consistency:
    - ··· removing unjustified derogations (road and rail) and grandfathering (maritime)
    - ... ensuring effective oversight of Hire and Drive vessels in the maritime sector
    - ··· streamlining Australian Design Rule processes for heavy vehicles.
  - Improving infrastructure provision and management:
    - · · · progressing Heavy Vehicle Road Reform
    - ··· ensuring that investment decisions on major freight corridors are based on transparent cost-benefit analysis, which includes consideration of intermodal options
    - ··· encouraging more 'as-of-right' access for vehicles (where appropriate) and more efficient processes for assessing permit applications
    - ... creating more consistent network rules for rail services.
  - Improving the evidence base for policy and regulatory decisions:
    - ... establishing 'no-blame' incident investigation across the transport modes
    - ··· harnessing telematics data to inform infrastructure investment and access management
    - ensuring that regulators improve their collection, analysis, and reporting of data, particularly in relation to safety outcomes and compliance costs.

# Overview

# What is this inquiry about?

The movement of goods, passengers and raw materials accounted for 4.5 per cent of Australia's GDP in 2018-19. The freight supply chain connects virtually all sectors of the economy, facilitating trade, production, and consumption. Both the freight task and passenger travel are expected to grow as the size of the population increases over time.

Transport activities involve inherent risks to safety. Governments have a role in encouraging and informing safe practices as well as ensuring that safety standards are not compromised by commercial pressures. At the same time, regulation should achieve safety objectives while minimising compliance costs and barriers to innovation, the latter being key to productivity growth and improved living standards.

The Australian Government asked the Commission to examine the impact of recent reforms to transport safety regulation which were intended to create more efficient national regulation (box 1). The Commission has also examined what further reforms might lead to a safer and more productive transport sector.

## Box 1 The Commission's task

The terms of reference set two tasks for the Commission. The first is to assess the implementation and economic impact of the 2009 COAG reforms that established national safety regulation for heavy vehicles, rail, and domestic commercial vessels. The second task is to identify new reforms that could advance the objectives of the 2009 COAG reforms.

The Commission was asked to take account of the broader objectives of the 2009 COAG reforms, other associated intergovernmental agreements, and complementary reforms at the Commonwealth, State and Territory levels. These reforms include (but are not limited to) rail standards harmonisation and interoperability, improved network access for higher productivity vehicles, the National Freight and Supply Chain Strategy, and the broader Heavy Vehicle Road Reform agenda of the Transport and Infrastructure Council (TIC).

# A safe and productive transport sector

Transport safety outcomes are determined by many factors, including the actions of transport workers, the decisions of transport operators, the functioning of the supply chain, the behaviours of people outside the transport industry (including the general public), the state

of equipment, and the adequacy of infrastructure. As such, there are several ways in which policy and regulation can influence transport safety (figure 1).

Figure 1 Policy objectives and levers to improve safety outcomes

Improved safety outcomes in transport

## Objectives for policy and regulation

# Transport workers implementing safe practices

- Capabilities in operation of vehicle / train / vessel
- Capabilities in auxiliary tasks (e.g. freight load handling and restraint)
- · Appropriate time and fatigue management
- Adequate information and education on best practice
- · Appropriate incentives, flexibility

## Operators implementing safe systems

- · Investment in maintenance
- · Investment in skills
- · Safety management systems and protocols
- Prioritising safety above productivity

## Safety management through the supply chain

- · Safety management by transport clients
- Appropriate incentives in commercial arrangements

## Quality of vehicles, trains, vessels, and equipment

- Safe design
- Adequate maintenance
- Provision of access to appropriate vehicles / vessels
- Development and take-up of new technologies

# Safe behaviours from third parties

 Skills and attitudes of other road users / vessel masters / the general public

# Adequate infrastructure

- · Provision of appropriate infrastructure
- Adequate maintenance
- · Access to appropriate routes
- Smart infrastructure

# Levers for government

## Effective regulation

## Safety regulation

- Transport safety national laws
- · Workplace Health and Safety
- Accreditation, industry codes
- Licensing

## Design regulation

- Australian Design Rules
- Requirements in National Laws

## Other transport regulation

- Police enforcement
- Regulation of recreational and general transport

# Non-transport regulation

- Regulation of related industries (e.g. agriculture)
- Environmental protection

# Infrastructure management

- Planning, provision, and maintenance
- Funding and investment decisions
- Access management

It is important to set a regulatory approach suited to the structure of the industry and the nature of its safety risks. Striking the right balance between prescription and flexibility can not only help to minimise compliance costs without diminishing safety, but also potentially improve the management of safety risks overall.

A prescriptive ('black letter law') approach requires regulators and lawmakers to identify risks and mandate specific solutions, with industry expected simply to comply. This approach tends to work better in cases where risks are static and well-understood, with clear and practical solutions. It works less well where risks are complex and unpredictable; in these cases, it may be more effective to use an outcomes-based approach that incorporates measures such as general safety duties, accreditation, and approved safety management systems (box 2).

# Box 2 Different approaches to safety regulation

**Prescriptive approaches** to regulation impose specific requirements on the operations of regulated parties. An example in heavy vehicle safety is regulations that prescribe the maximum mass of various types of heavy vehicles, with penalties for operating over the prescribed mass.

An **outcomes-based approach** to regulation involves defining the outcome the regulator is seeking to achieve without specifying the measures that regulated parties must take to achieve them. Outcomes are defined at a high level and in a way that lets regulated parties choose how to meet the objective. One way for regulated parties to demonstrate compliance with regulatory objectives is by becoming accredited. To maintain confidence in accreditation systems, regulators also monitor their effects on safety outcomes.

A **tiered system** can be useful in regulating a diverse group of operators. Under this arrangement, operators are subject to safety obligations and can choose how to achieve them.

- Regulators would publish 'acceptable means of compliance' work practices and technologies that are deemed to achieve the high-level safety objectives.
- Transport operators could choose to not use the 'acceptable means of compliance' if they were able to demonstrate that they have systems for managing safety risks that are at least as safe as the acceptable means. Operators would be required to have their safety management systems accredited by the relevant regulator (at the operator's expense).

In addition, **risk-based approaches** to safety regulation ensure that the nature and severity of compliance and enforcement are commensurate with the risks posed to regulatory objectives. Such approaches allow regulators to deploy resources in proportion to levels of risk, and to ensure that regulated businesses face compliance requirements commensurate with risk.

In practice, there are advantages and disadvantages to each regulatory approach. For example, well-designed prescriptive regulations can be simpler and less costly to enforce; rely less on regulator discretion; provide a mechanism to achieve regulatory harmonisation; and provide equivalent responsibilities for competing businesses. However, prescription deters innovation, as businesses lack the flexibility to manage their risks in more efficient ways. Prescription can also create a sense that businesses are primarily responsible for complying with regulation, rather than for managing safety risks to the best of their ability.

The Commission considers that approaches to safety regulation should take account of which party is best placed to understand and manage the safety risk. Doing so will usually require a mix of prescription and flexibility, in order to address a range of safety risks and to suit businesses of different sizes and capabilities. In some industries, a tiered approach is used to allow businesses a choice between following prescribed rules or using an alternative

approach with the regulator's approval. In any case, any regime of safety regulation that minimises compliance costs and facilitates innovation from industry can contribute to better safety outcomes and productivity growth.

In this context, the Commission has considered both the **harmonisation of transport safety regulation**, and the potential for **further policy action to improve safety and productivity**. Establishing national regimes was intended to improve the efficiency of safety regulation, with positive implications for both productivity and safety. However, by focusing on safety regulation (and to some extent, heavy vehicle access), these reforms excluded other important levers for government. Notwithstanding the benefits achieved through harmonisation, several bottlenecks to productivity remain and further reform is warranted.

# Harmonisation of transport safety regulation

The arguments for establishing national regulatory regimes in transport included that:

- transport services often traverse State and Territory borders, meaning that operators would often encounter multiple regulatory regimes in the course of a single journey
- businesses with operations in multiple jurisdictions had to duplicate compliance efforts
- national regimes could reduce costs for transport workers moving interstate, or for businesses moving fleet assets interstate.

In 2009, COAG endorsed a shift to national regulation of heavy vehicles, rail, and domestic commercial vessels (DCVs), leading to three intergovernmental agreements made in 2011. The reforms aimed to harmonise safety regulations across jurisdictions as part of the Seamless National Economy agenda.

The primary goals of the harmonisation agenda have been achieved, albeit with some implementation issues and unfinished business (figure 2). National laws have been implemented for each sector, including the Heavy Vehicle National Law (HVNL), the Rail Safety National Law (RSNL), and the Marine Safety (Domestic Commercial Vessel) National Law (MSNL). The three national laws replaced multiple State and Territory Acts. There remain two non-signatory jurisdictions to the HVNL (Western Australia and the Northern Territory) and many derogations from both the HVNL and RSNL.

National regulators have also been established. The National Heavy Vehicle Regulator (NHVR) and the Office of the National Rail Safety Regulator (ONRSR) were established in 2012. The Australian Maritime Safety Authority (AMSA) became the national regulator of domestic commercial vessels on 1 July 2013, and assumed responsibility for all related service delivery on 1 July 2018.

Figure 2 The progress of the 2009 COAG transport reforms

	Heavy vehicles	Rail	Maritime
Regulated industries	<ul> <li>All heavy vehicles &gt;4.5t</li> <li>Freight haulage</li> <li>Oversize, overmass</li> <li>Construction transport</li> <li>Passenger buses</li> </ul>	All above- and below-rail operations  • Freight rail  • Passenger rail	DCVs - operating only within Australian waters • Passenger • Fishing • Hire and drive • Other DCVs
Establishment of national regimes	<ul> <li>Heavy Vehicle National Law</li> <li>National Heavy Vehicle Regulator</li> </ul>	<ul> <li>Rail Safety National Law</li> <li>Office of the National Rail Safety Regulator</li> </ul>	<ul> <li>Marine Safety         (Domestic Commercial         Vessel) National Law</li> <li>Australian Maritime         Safety Authority</li> </ul>
Establish national	Replaced six State and Territory Acts     Replaced six regulatory authorities	<ul> <li>Replaced seven State and Territory Acts</li> <li>Replaced seven regulatory authorities</li> </ul>	<ul> <li>Replaced eight         Commonwealth, State,         and Territory Acts     </li> <li>Replaced seven         regulatory authorities     </li> </ul>
Implementation issues	<ul> <li>Delays to application of National Laws</li> <li>Delays to regulator maturity and operation</li> </ul>	Relatively smooth transition	<ul> <li>Changes to AMSA's role, starting dates</li> <li>Uncertainty over cost recovery</li> <li>Delayed, inconsistent handover from jurisdictions</li> </ul>
Extent of implementation at 2019	<ul> <li>Two non-signatory jurisdictions (WA, NT)</li> <li>Several substantive derogations</li> <li>NHVR yet to assume full responsibility across NSW, QLD.</li> </ul>	<ul> <li>Several substantive derogations</li> <li>Inconsistencies due to mirror legislation</li> <li>Above rail operators face varying track rules</li> </ul>	<ul> <li>Many DCVs not subject to aspects of MSNL due to grandfathering</li> <li>Regulator's data capabilities still building</li> <li>Cost recovery to be resolved in 2021</li> </ul>

The scale of the harmonisation task for each of the three modes of transport has been considerable, partly due to the wide variations between State and Territory regulations. Implementing the national laws and establishing national regulators has taken longer than expected, and remains a work in progress. These experiences have yielded several lessons that could be relevant to undertaking harmonisation reforms in other sectors (box 3).

## Box 3 Lessons learned about harmonisation

Lessons learned from the implementation of national transport regulation could usefully inform other policy initiatives where harmonisation is intended.

## Harmonisation is a means not an end

Harmonisation should only be pursued with due regard to benefits and costs. The costs of implementation alone may be significant. Moreover, regulatory inconsistencies across jurisdictions could be justified (for example, they may reflect different operating environments). Any process of harmonisation should be an evidence-based move toward best practice regulation.

Where consistency of regulation is pursued, governments should consider different ways of achieving it, including uniform legislation, mutual recognition or less prescriptive regulation. Any derogations from national law should either be justified by evidence or removed.

## Preparation and planning are key

A smooth transition to national regulation requires careful planning and a shared commitment from all participating jurisdictions. Cooperation from exiting regulators is essential. These regulators have few incentives to maintain their regulatory activities or to assist the new regulator in obtaining the personnel, systems and data for a successful launch. The problem is compounded if the national regulator faces widely different State and Territory regimes with little shared agreement on the detail of future (national) legislation. A strong commitment by all jurisdictions, that is clearly articulated to their agencies, is most likely to ensure a smooth transition.

## National regulation requires consistent national data

Risk-based regulation requires high quality information to guide decision-making. Switching to national regulation is likely to require consolidating different State and Territory datasets into a single system. In cases where jurisdictions collect and use data in different ways, creating a new system is likely to be challenging. Data should be shared with the national regulator as early as possible before the commencement date of the new regime.

# Funding for the regulator should be agreed at the outset

Prolonged uncertainty over funding can limit a regulator's ability to provide services in the short term or to plan service levels in the longer term. This has been the case in domestic commercial vessel regulation, where the approach to cost recovery will not be determined until 2021 — eight years after the establishment of the MSNL. Barriers to service delivery or forward planning will have implications for the effectiveness of the regulator, and therefore, for safety outcomes.

## Transitional measures should be clearly time-limited

Grandfathering allows businesses to continue operating under old regulations rather than current regulations. Grandfathering can help some operators during the transition to a new regime, but indefinite grandfathering delays the adoption of safer practices and technologies. Grandfathering provisions should be subject to reasonable sunset provisions, after which time they should be reviewed using an independent cost-benefit analysis. Similarly, while Service Level Agreements with state regulators are useful in the transition to a national regime, long-term reliance on third parties can delay national regulators reaching maturity.

(continued next page)

# Box 3 (continued)

## An applied laws approach aids harmonisation

There are two main ways for States and Territories to legislate a national law. Jurisdictions may give effect to a law from a host jurisdiction (applied legislation) or a jurisdiction may produce its own Act duplicating the provisions of the other Act (mirror legislation). An applied laws approach ensures that the national law changes in all participating jurisdictions once legislation is passed in the host parliament. However, with mirror legislation, changes to the national law are not automatically reflected in 'mirror' jurisdictions. Rather, each jurisdiction can decide whether or not to amend its Act in line with national law, and legislation will need to be passed in its parliament. Mirror legislation can cause lags and inconsistencies which can last for years.

# The effect of harmonisation reforms on safety

The move to national laws and regulators has fundamentally changed how transport safety is regulated. It has allowed for improvements to the management of safety risks, including the further development and proliferation of chain of responsibility laws, fatigue management, and accreditation (heavy vehicle); the establishment of a functional system of co-regulation (rail); improvements in interface agreements (rail); and improvements in safety equipment standards (maritime).

It is less clear whether national regulation has led to better safety in the transport sector. By most measures, safety has continued to improve since 2011 (figure 3). However, it has not been possible to separate the effect of the national laws from other factors such as the introduction of safer technology or improvements in infrastructure. Some policy changes are expected to contribute to longer term improvements in risk management; their benefits might not yet be apparent but could emerge over time.

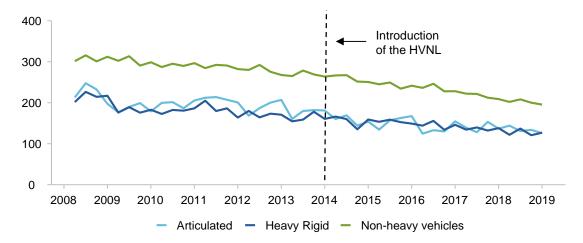
# The effect of harmonisation reforms on productivity

On the limited information available, it is unclear whether compliance costs have increased or decreased overall as a result of the harmonisation reforms. Compliance costs appear to have decreased for some operators, particularly in rail. In addition, it is difficult to assess whether the establishment of national regulators has led to a reduction in administrative costs, due to a lack of comparable data from before and after the reforms.

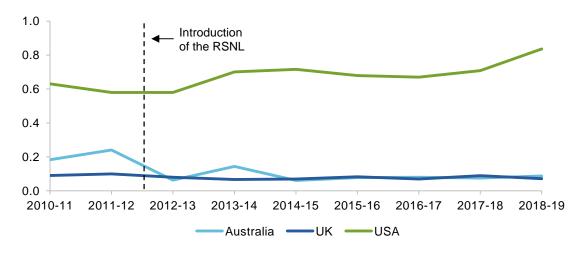
Most of the productivity benefits of harmonisation were expected to come from improved road access for heavy vehicles. The Regulation Impact Statement for the Heavy Vehicle National Law estimated the value of improved heavy vehicle access at \$9 billion over 20 years in net present value terms. This estimate of productivity growth was excessively optimistic and could not have been achieved even if implementation had been ideal.

Figure 3 Transport safety over time

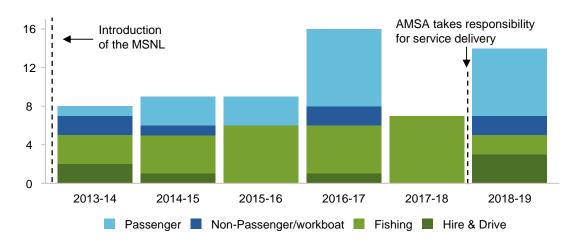
Heavy vehicle crashes involving injury or death per billion vehicle kilometres travelled



Rail related fatalities (excluding suspected suicide) per million train kilometres travelled

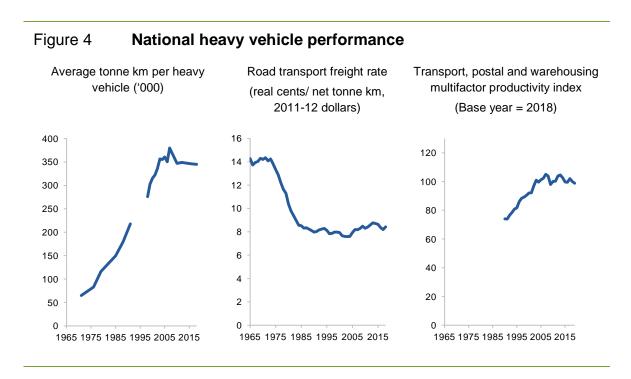


Fatalities associated with domestic commercial vessels



Some road managers have made progress in improving heavy vehicle access by using gazetted as-of-right access, as well as permit pre-approvals that allow access without referral to asset managers. This has led some heavy vehicle operators to invest in larger (and safer) vehicles. However, there have been few changes in access on key freight routes and the increase in the number of more productive vehicles is small relative to the size of the whole truck fleet.

Overall, the changes appear to have had a limited effect on heavy vehicle performance. Several indicators suggest sluggish productivity growth in road transport over the past decade (figure 4). Long term historical trends show the amount of freight carried per heavy vehicle has increased while freight prices have decreased; however, these trends have both plateaued in recent years. The timing of these trends is consistent with the plateau in multifactor productivity (MFP) in the transport, postal and warehousing sector.



# Productivity bottlenecks remain

Productivity in the transport sector is influenced by many factors, including technological change, innovation, competition, the design of regulation, and the behaviour of regulators (figure 5). There remain significant bottlenecks to further productivity growth in the transport sector, due to both unfinished aspects of the 2009 COAG reforms and issues beyond the remit of those reforms. Some of these issues occur on major corridors, such as the Hume Highway between Melbourne and Sydney, where operators continue to face inconsistent access when crossing state borders and are limited in their ability to implement productivity-enhancing technology (box 4).

Figure 5 Policy objectives and levers to improve productivity

## Improved productivity in transport

## Objectives for policy and regulation

#### Increased use of more productive freight vehicles

- · Efficient access regimes
- Design approval
- · Development and take-up of new technologies

## Adequate infrastructure

- · Efficient provision and maintenance of infrastructure
- · Efficient use of infrastructure
- Reducing congestion / improving interaction between freight and other uses
- · Highest value use of land

#### Intermodal allocative efficiency

- · Appropriate market mechanisms
- Minimising barriers to substitutability
- Appropriate access arrangements / funding for infrastructure

# Logistical planning and operation

- · Efficient timetabling, tracking, and contracting
- Sharing and use of real-time data, with appropriate safeguards

# Adequate workforce supply and mobility

· Adequate supply of skilled labour

# Minimal regulatory burden

- Setting regulatory regimes to achieve safety objectives at lower compliance costs
- · Reducing lag and uncertainty for approval processes

## Levers for government

## Design approval

Australian Design Rules

## Infrastructure management

- · Planning, provision, and maintenance
- · Funding and investment decisions
- Access management

### Strategic transport policy

· Freight and Supply Chain Strategy

### Competition policy and regulation

Access pricing

# Data infrastructure

- Establishing rules and protocols
- Facilitating sharing
- Providing safeguards

## Skills policy

- Licensing
- Vocational Education and Training

## Effective regulation

- Minimising financial and time costs of compliance
- Achieving consistency
- Allowing for innovation from industry

More generally, the challenge remains for government to maximise the innovative potential of private industry, while meeting objectives around safety and efficient infrastructure management. In some cases, lifting productivity growth will require a redesign of safety regulation, allowing for greater use of outcomes-based and risk-based regulation, as well as greater scope for private sector innovation. In other cases, governments will need to introduce reforms to related policy areas.

# Box 4 Case study: larger freight vehicles on the Hume Highway

While the B-double is a workhorse among heavy freight vehicles, some larger combinations (such as A-doubles and B-triples, particularly Performance-Based Standards (PBS) combinations) are more efficient, more versatile, and potentially safer. These larger combinations carry more freight in a single trip, meaning that fewer trips are required for a given freight task. As an example, the amount of freight transported in 100 vehicle movements of a 26 m B-double would only take about 80 vehicle movements using a 36.5 m A-double. In addition, A-doubles are easily separated into two standard semitrailers, increasing flexibility for operators. Where roads can accommodate these larger vehicles, allowing access to them can lead to lower operating costs and improve productivity.

The benefits of opening access to A-doubles are particularly relevant on major freight corridors, such as the Hume Highway between Sydney and Melbourne. In 2018, Victoria introduced pre-approved access networks to accommodate 30 m PBS A-doubles, including on the Hume Highway. The change aimed to improve freight efficiency in response to frustration voiced by industry. However, access for A-doubles and other larger vehicles does not extend to New South Wales, and remains relatively limited on this corridor in both Victoria and New South Wales. The lack of end-to-end access for larger vehicles lowers the incentive for operators on this corridor to invest in these vehicles. Improving access to the Hume Highway for larger vehicles, especially PBS vehicles, would encourage their use and reduce the number of heavy vehicle movements and associated safety risks.

While the focus of the 2009 COAG reforms was to minimise compliance costs and barriers to innovation through safety regulation, other key levers for governments include the efficient investment in and management of transport infrastructure, design approvals, and data infrastructure. And while the national safety regulators are important partners in improving productivity, much of the required action will need to come from the three levels of government. As such, it is unlikely that large productivity benefits will be realised in the absence of broader reforms, as outlined below.

# Further policy action to improve safety and productivity

Changes to several areas of policy could lead to substantial improvements to transport safety and productivity, many of which are beyond the scope of safety regulation. Governments should:

- 1. balance prescription and outcomes-based approaches in safety regulation
- 2. take a risk-based approach to safety, compliance and enforcement
- 3. improve infrastructure provision and management
- 4. improve the evidence base for regulatory and policy decisions.

# 1. Balance prescription and outcomes-based approaches in safety regulation

Reform	Responsibility	Objective
Allow for more outcomes-based regulation of heavy vehicles. Reform the HVNL to allow the regulator sufficient discretion and powers in legislation to implement a tiered approach to regulation.	Australian, State and Territory Governments, and safety regulators.	Allow more capable firms to innovate in how safety is managed (with approval from the regulator). Businesses not seeking flexibility can operate according to prescriptive regulations.
Remove detail from the HVNL and provide 'acceptable means of compliance' in other instruments.	Australian, State and Territory Governments.	Improve the efficiency of prescriptive heavy vehicle regulations through streamlining and making them more adaptable to change.

Transport businesses vary in size, resources, and capabilities, particularly in the heavy vehicle and domestic commercial vessel industries. Given this diversity, there is value in a tiered approach to transport safety regulation, involving acceptable means of compliance (offering certainty and ease of compliance) complemented by the option of flexibility (with approval from the regulator for in-house management systems or accredited off-the-shelf solutions). This would allow operators to either follow a clear, 'deemed to comply' set of regulations, or opt into a system that allows flexibility to meet acceptable safety outcomes in more efficient ways.

This regulatory model is most advanced in rail. ONRSR can approve safety management systems proposed by operators and can implement more direct regulation where they see fit. There is likely to be value in ensuring that similar outcomes-based regulation is available for operators in other modes of transport, to operate alongside prescriptive 'deemed to comply' provisions.

Further progress toward a tiered system is warranted in heavy vehicle regulation. The National Transport Commission (NTC) noted in its issues paper on *A risk-based approach to regulating heavy vehicles* that the HVNL forces operators to implement safety management systems while remaining in a prescriptive regulatory environment. For example, some large operators may already use safety assurance frameworks (in order to comply with Workplace Health and Safety laws or other regulatory regimes) but remain subject to the prescription of the HVNL.

The HVNL already allows some scope for flexibility beyond the 'black letter law', similar to the broad design of the tiered system discussed above. For example, the National Heavy Vehicle Accreditation System (NHVAS) allows operators regulatory concessions on specific modules such as fatigue management and vehicle maintenance. However, the NTC's review of the HVNL is a timely opportunity to consider how to redesign regulation in the sector, beyond simply adjusting existing mechanisms.

The HVNL should be amended to further progress heavy vehicle regulation toward a tiered system. The system would need to reflect the varied preferences and capabilities of

operators: some may prefer a clear set of prescriptive regulations; some may prefer limited flexibility; and others are likely to benefit from implementing their own safety management systems.

Under a tiered system, the NHVR would need to be satisfied that any alternative approach to managing a safety risk would provide safety outcomes at least equivalent to those expected under prescriptive regulations. This would require legislation to provide the NHVR with sufficient discretion, frameworks for public accountability, and clear roles and responsibilities. The latter should include frameworks for assurance decision-making, and responsibilities for monitoring, compliance, and enforcement.

In general, tiered and outcomes-based systems require highly capable regulators. Strong capabilities would be required of the NHVR, including proficiencies in assessment, assurance, monitoring, and enforcement. In relation to the latter, a clear understanding of the tiered approach would be required by all parties responsible for enforcement, including the Australian, State and Territory Police Forces.

Changes should also be made to ensure that the prescriptive tier of the HVNL operates efficiently. At present, any update to the HVNL to reflect contemporary evidence would require legislative change. The Commission has heard from industry that aspects of weight restrictions and vehicle definitions entrenched in the HVNL discourage the use of safer technologies, such as twin-steer prime movers. If prescriptive detail were removed from legislation and placed in other regulatory instruments, this would allow regulations to be updated more promptly, ensuring that the HVNL is not subject to inertia.

# 2. Take a risk-based approach to safety, compliance and enforcement

Responsibility	Objective
Australian, State and Territory Governments, and safety regulators.	Ensure that regulations reflect current evidence and are adaptable to change.
AMSA with support from Australian, State, and Territory Governments.	Make vessels subject to survey according to risk profiles, rather than date of operation. Better knowledge of the fleet would inform further changes. Smoke detection systems could address safety risks with minimal compliance cost to industry.
Australian, State, and Territory Governments, and AMSA.	Ensure that Hire and Drive vessels are regulated efficiently with appropriate and cost-effective enforcement.
Australian Government.	Reduce processing times for new technologies where advanced international standards exist, and Australian needs and conditions are unlikely to be unique.
-	Australian, State and Territory Governments, and safety regulators.  AMSA with support from Australian, State, and Territory Governments.  Australian, State, and Territory Governments, and AMSA.

Safety regulators should continue to pursue risk-based approaches to safety regulation, particularly in compliance and enforcement. Such approaches allow regulators to deploy resources in proportion to the risk of harm. Regulators can then tailor their service delivery and administration so that compliance costs are commensurate with risks. However, regulators' assessments of risk should be underpinned by thorough analysis of evidence.

The capacity for regulators to implement risk-based regulation is, in some cases, hampered by derogations from the national laws. State and Territory Governments should remove derogations that result in additional compliance costs which cannot be justified on the basis of safety, and where any cost of removing the derogation is commensurate with the expected safety benefit. National regulations should also reflect the risks in different operating environments. As a priority, State and Territory Governments should consider moving to harmonised regulation of fatigue management in rail, particularly for interstate transport. Consistent approaches to fatigue management would reduce compliance costs and would not diminish safety.

In maritime regulation, while elements of risk-based regulation have been implemented, several areas of regulation are subject to grandfathering provisions. The safety risks associated with grandfathering have been acknowledged by various stakeholders, including AMSA. State and Territory coroners have recommended the removal of grandfathering for domestic commercial vessels, especially fishing vessels. However, establishing a conclusive case for removing each remaining grandfathering provision is difficult, given the dearth of evidence on the likely costs to industry and expected safety benefits that might result.

As a starting point, governments should support AMSA in removing grandfathering of survey requirements. Requiring grandfathered vessels to undergo survey would enhance AMSA's evidence base and ability to target regulation and enforcement according to risk. In time, AMSA should have a sufficient evidence base to conclude whether further changes to grandfathering provisions would have safety benefits commensurate with compliance costs. Where a convincing case is made on safety grounds, governments should support AMSA's decisions around grandfathering provisions.

The split of responsibilities between AMSA and State and Territory regulators can be improved. Recreational craft are regulated by AMSA if hired, and by a State/Territory regulator if used for non-commercial purposes. This division of responsibilities lacks a sound rationale. State and Territory regulators are responsible for safety on local waterways and are resourced for the task. Returning responsibility for Hire and Drive (Class 4) vessels to the States and Territories would allow for clear enforcement and avoid the need for AMSA to duplicate existing services. Should governments be reluctant to make this change, AMSA should coordinate with State and Territory agencies to enforce safety regulation of Class 4 vessels, although that approach would be less efficient than transferring responsibility back to the States and Territories.

In some cases, risk-based regulation will require regulators to mandate protocols or equipment where risks are high relative to the prospective compliance cost. For example,

AMSA already requires vessels to carry Emergency Position-Indicating Radio Beacons (EPIRBs), and should also require passenger vessels to be fitted with smoke detectors.

In other cases, better regulation of safety risks could result in less intrusive regulation. For example, new technologies, particularly in heavy vehicles, may have a high exposure to risk and require stringent enforcement of standards. However, standards are also implemented by the advanced economies from which Australia imports most of its heavy vehicles. For the most part, those standards are accepted through the Australian Design Rules, with some adaptation to Australian conditions. There would be value in ensuring that international standards from advanced economies are treated as 'deemed to comply', unless the relevant Department considers that a review is required (which should then be completed within a defined timeframe).

# 3. Improve infrastructure provision and management

Reform	Responsibility	Objective
Continue to implement Heavy Vehicle Road Reform.	All levels of government.	Provide a mechanism to better link road demand and supply. Allow for efficient and adequate funding of road provision and maintenance.
Consider intermodal opportunities when planning investment on major transport corridors.	Australian, State and Territory Governments.	For major freight routes, allow for a more efficient allocation of infrastructure investment funding through transparent cost-benefit analysis.
Improve the capabilities and resourcing of road asset managers.	State, Territory, and Local Governments; NHVR.	Improve the efficiency of the heavy vehicle access system, thereby improving the management and use
Encourage more as-of-right access.		of infrastructure.
Negotiate more flexible permit pre-approvals to encourage risk-based access decisions.		
Publish information on access permit decisions and processing times.		

Safety and productivity in the heavy vehicle and rail sectors require policies that support efficient investment in, and management of, infrastructure.

Valuable work is underway to understand how pricing for heavy vehicle charges might work in practice. Public consultations have been held on the prospect of independent price regulation of heavy vehicle charges. There have been multiple reports into Heavy Vehicle Road Reform and price-setting models. Governments at all levels should ensure that these reforms continue as a matter of priority.

It could also be valuable to reconsider how major infrastructure investment decisions are made on important transport corridors. While road and rail transport are mostly complementary, the two modes may also compete on these corridors to deliver long-distance freight. Government investment in new infrastructure should be technology- and

mode-neutral, and subject to transparent lifetime cost-benefit analysis. Investment should be allocated to projects that have the highest probability of significant net benefits (noting historically common tendencies to overestimate net benefits and to take insufficient account of uncertainty). As the Commission has noted elsewhere, project analysis and decision making should be independent of project proponents.

Significant, incremental improvement is also possible for road access management. Road asset managers allowing as-of-right access (including with conditions) reduces strains on the permit approval system and gives certainty to heavy vehicle operators. Each road asset manager should be sufficiently resourced to make prompt decisions about access — this could involve resource pooling, particularly for road managers who receive permit requests less frequently. The NHVR should also improve reporting and analysis of past access decisions to provide an evidence base for road managers and industry.

# 4. Improve the evidence base for regulatory and policy decisions

Reform	Responsibility	Objective
Improve the sharing and use of data to inform infrastructure management and access decisions.	Australian, State and Territory Governments.	Improve the evidence base for infrastructure asset managers, improving investment, maintenance, and access management decisions.
Establish and fund no-blame investigation for heavy vehicles and autonomous vehicles. Properly resource no-blame investigation in rail and DCV transport.	Australian, State and Territory Governments.	Ensure that no-blame incident investigation operates in each mode of transport and informs safety policy and regulation regarding systemic issues.
Improve the collection, analysis, and reporting of safety data.	AMSA, NHVR, and ONRSR.	Improve accountability of safety regulations and regulators.
Regulators to monitor and report on compliance costs.	AMSA, NHVR, and ONRSR.	Improve visibility and focus on compliance costs.
Regulators to report disaggregated administration costs.	AMSA, NHVR, and ONRSR.	Improve accountability to cost-recovery principles.

The National Freight Data Hub, announced by the Australian Government in the 2019-20 Budget, is in the early stages of design and development. While there are potentially many commercial and regulatory uses for freight data, some of the key opportunities involve providing infrastructure managers with improved information on how roads are being used by operators. This could better inform road asset planning and management, and assist in day-to-day road access decisions. These opportunities may benefit from the consolidation of data in a central repository and the development of protocols for the sharing and use of data. They could be among many significant contributions of the National Freight Data Hub.

At the same time, the national safety regulators should improve their collection, reporting, and analysis of operational data. For example, more detailed reporting by the NHVR of permit-related data would help businesses identify areas where permits have been granted in the past, as well as areas with longer processing times or higher refusal rates.

Regarding safety-related data, improving incident reporting and data publication would increase transparency and inform risk-based approaches to regulation and enforcement. Analysis of safety data could add significant value for industry through research and policy development. Among the three modes of transport that are the focus of this inquiry, maritime transport appears to be the least well served by public research agencies aside from the regulator itself. There would be value in having agencies other than AMSA conducting research into maritime safety.

In general, transport policy, regulation, and industry practice could all benefit from an improved understanding of the systematic causes of safety incidents. While investigations by law enforcement, coroners, and insurers identify direct technical causality and legal liability, more systematic and circumstantial factors are likely to fall outside of their focus. Understanding these factors requires not only incident investigation, but also historical analysis and extended research into the supply chain, the manufacturing chain, and various chains of responsibility. Systematic safety concerns will increase in importance as technology develops (particularly with autonomous transport, where systems themselves have agency), and as supply chains become more complex and integrated.

In both air and rail transport, independent no-blame investigation helps build understanding of the systemic causal factors of safety incidents. Similar models are used internationally to complement safety regulation, across all modes of transport. No-blame investigation allows for informed policy recommendations to be made independently of governments, and for advice to be provided to industry without asserting legal wrongdoing.

No-blame investigation in the rail sector is not consistently resourced; no such system operates for road transport or for domestic commercial vessels. Governments should ensure that independent investigation of systemic safety issues occurs across all modes of transport, including where autonomous vehicles, trains and vessels are involved. For each mode, there is value in taking a national approach. Stable funding is required to build expertise and to avoid the delays which would arise if funding has to be negotiated incident-by-incident. All governments should provide funding to support this critical public interest work.

A national approach to no-blame incident investigation and research should be centred around the Australian Transport Safety Bureau (ATSB), as this would allow leveraging of existing processes and expertise. Aside from resourcing, legislative change would also be required to provide the ATSB with a formal role in investigations and research involving domestic commercial vessels, and to allow the ATSB to undertake operations in road transport. The latter should include a clearly defined, phased transition into no-blame incident investigation and research for heavy vehicle transport (involving extensive data analysis and a relatively narrow set of incident investigations), and no-blame incident investigation of autonomous road vehicles.

## Conclusion

The harmonisation of transport safety regulation was a practical, cooperative reform to improve safety and lower business costs. The implementation phase of these reforms is nearing completion, having already revealed important lessons for policymakers contemplating harmonisation in other sectors. The next wave of reforms in the transport sector will build on these foundations, but will also need to tackle a wider set of issues.

Further action is required from governments to fully realise the benefits of national systems of safety regulation. This includes enhancing the capability of regulators to apply a rigorous outcomes- and risk-based approach to safety regulation, and removing excessive prescription from regulation. Derogations and grandfathering provisions should also be phased out, subject to evidence-based justification on safety grounds.

Governments should also aim to improve infrastructure planning, investment, and pricing. This includes improving the ability of infrastructure managers to undertake tasks relating to planning, maintenance and access management. It also includes continuing to establish stronger links between the supply and demand of road infrastructure, and committing to thorough and transparent cost-benefit analysis that considers the intermodal nature of freight.

For industry, the next wave of reforms should enable the adoption of innovative, safe solutions. It should also reduce the barriers to the use of safer and more efficient technologies, and encourage the production, sharing, and use of data.

Continued improvement in regulation and policy will require ongoing commitments from governments: driving the national reform agenda; ensuring efficient levels of resourcing; and committing to transparent, evidence-based decision making. Together this package of reform measures could produce a transport sector that is safer, more efficient, and better prepared for the growing passenger and freight tasks.

# Findings and recommendations

# Harmonisation of transport safety regulation

Is transport safety regulation nationally consistent?

FINDING 4.1 - IMPLEMENTATION OF THE NATIONAL SYSTEMS IS LARGELY COMPLETE

While implementation has been slower than expected, national regulation and national regulators for heavy vehicles, rail and domestic commercial vessels are now largely established.

## FINDING 4.2 - DEROGATIONS FROM ROAD AND RAIL LAWS UNDERMINE CONSISTENCY

There are more than 70 derogations from the Heavy Vehicle National Law and more than 80 derogations from the Rail Safety National Law. Derogations are contrary to the aims of harmonisation, and often create unnecessary costs and complexity for businesses and regulators.

# FINDING 4.4 - RAIL NETWORK STANDARDS AND RULES ARE A BARRIER TO CONSISTENCY

Different technical standards, operating codes and procedures set by rail network owners can complicate the movement of rolling stock across networks. Rail network operators and above-rail operators have opportunities to reduce the costs of differences in network standards. Potential solutions include investment in rail infrastructure and rolling stock and administrative changes to network rules. These are commercial matters and are not the responsibility of the National Rail Safety Regulator.

# Assessing the national regulators

## FINDING 5.3 - AMSA IS RESPONSIBLE FOR A BROAD RANGE OF VESSELS

The Australian Maritime Safety Authority (AMSA) has a complex regulatory task. AMSA is responsible for regulating a diverse set of vessels, from kayaks to fishing boats and passenger ferries. Operators of domestic commercial vessels are also diverse. Some large operators are able to implement sophisticated risk management systems, while many smaller operators have difficulty in using AMSA's centralised, online systems. The diversity of the fleet and operators has complicated the process of transition to consistent national regulation of domestic commercial vessels.

# RECOMMENDATION 4.2 - TRANSFER REGULATORY POWERS TO THE NATIONAL REGULATORS

The Transport and Infrastructure Council should agree to transfer all regulatory functions still held by participating jurisdictions to the National Heavy Vehicle Regulator by 2022.

To ensure consistent application of the national laws, the National Heavy Vehicle Regulator and Australian Maritime Safety Authority should phase out service-level agreements with State and Territory agencies.

However, where there is a business case for the national regulators to retain service-level agreements with third parties, those parties should act under the direction of the national regulators to ensure consistent decisions across jurisdictions.

## RECOMMENDATION 5.2 - GOVERNANCE OF ONRSR

The Transport and Infrastructure Council should endorse amendments to the *Rail Safety National Law Act 2012* (South Australia) to specify that the Office of the National Rail Safety Regulator be changed to an Advisory Board consisting of:

- up to 5 non-executive members, including members with experience in rail transport, risk management, financial management and business administration, one of whom would be chair
- the National Rail Safety Regulator.

## FINDING 10.1 - COST RECOVERY APPROACHES VARY ACROSS NATIONAL REGULATORS

Different approaches to cost recovery apply in each of the three modes. The degree of cost recovery reflects the historical differences applying across the States and Territories and between the three modes of transport.

There is a clear phased transition path for the Office of the National Rail Safety Regulator (ONRSR) toward full cost recovery. For the Australian Maritime Safety Authority (AMSA)'s role in regulating domestic commercial vessels, cost recovery is subject to an ongoing review. The National Heavy Vehicle Regulator (NHVR) receives funding from State and Territory Governments, who in turn receive fee revenue related to heavy vehicle registrations, although the degree of cost recovery is unclear.

RECOMMENDATION 10.2 – FUNDING FOR NATIONAL REGULATORS SHOULD FOLLOW EXISTING GUIDELINES

The national regulators should move towards cost recovery arrangements in line with the Australian Government Cost Recovery Guidelines. Consistent arrangements across the three transport regulators will reduce the risk of distorting intermodal choices.

Has harmonisation improved safety or productivity?

## FINDING 6.1 - ROAD SAFETY HAS IMPROVED FOR MOST VEHICLE TYPES

Heavy vehicle safety has improved significantly over the past decade. The number of heavy vehicle crashes involving injury or death per kilometre travelled fell by about 40 per cent between 2009 and 2019. The fall in crash rates is likely to be due to factors affecting all vehicle types (for example, improvements in road infrastructure and new safety technologies).

# FINDING 6.2 - RESPONSIBILITY FOR HEAVY VEHICLE FATALITIES

In 2017, most multi-vehicle fatal crashes involving a heavy vehicle were not the fault of the heavy vehicle driver. The driver of the other vehicle was at fault 83 per cent of the time. For serious, non-fatal, multi-vehicle crashes involving a heavy vehicle, the heavy vehicle driver was at fault 65 per cent of the time.

## RECOMMENDATION 6.1 - EDUCATION AND ENFORCEMENT TO IMPROVE ROAD SAFETY

State and Territory governments should introduce new programs or continue with existing programs of education and enforcement to improve road users' understanding of driving safely around heavy vehicles.

# Further policy action 1: Balance prescription and outcomes-based approaches in safety regulation

## FINDING 6.3 – UNCERTAINTY ABOUT CHAIN OF RESPONSIBILITY OBLIGATIONS

Many heavy vehicle operators, customers and other supply chain participants are uncertain about their obligations under Chain of Responsibility laws. Some contracting parties are imposing unnecessary and costly requirements on transport operators to minimise their potential liability. These additional requirements may also provide opportunities for large transport purchasers to exercise market power in ways that could reduce competition in the market for transport services.

## RECOMMENDATION 6.2 - CLARIFYING HEAVY VEHICLE CHAIN OF RESPONSIBILITY OBLIGATIONS

The Council of Australian Governments should endorse amendments to the Heavy Vehicle National Law to clarify the obligations of regulated parties under Chain of Responsibility laws. The amendments to the Heavy Vehicle National Law should empower the National Heavy Vehicle Regulator to:

- publish 'acceptable means of compliance' with Chain of Responsibility laws for transport operators and other parties in the supply chain
- accredit other approaches to compliance, with the costs of accreditation to be borne by the regulated parties.

# FINDING 6.4 – THE EFFECTS OF HEAVY VEHICLE ACCREDITATION ON SAFETY ARE UNCLEAR

Heavy vehicle accreditation schemes create opportunities for operators to implement flexible approaches to some aspects of their business. However, evidence of the safety effects of heavy vehicle accreditation schemes is incomplete. Improving the range and type of data collected is important for effective risk-based regulation and enforcement.

# RECOMMENDATION 8.3 - GENERAL SAFETY DUTIES FOR AUTONOMOUS VEHICLES

The Australian Government should impose a general safety duty on all parties with a significant influence over the safe operation of autonomous transport technologies. The creation of a general safety duty should not preclude the use of prescriptive rules where the assessed risks are high.

## FINDING 5.1 - THE HEAVY VEHICLE NATIONAL LAW IS EXCESSIVELY PRESCRIPTIVE

The Heavy Vehicle National Law is excessively prescriptive and limits the scope for operators to use innovative approaches to manage safety risks.

A greater emphasis on outcomes-focused approaches in legislation and regulation would improve road safety, reduce the burden of compliance and administration, and increase the efficiency of road transport. The National Transport Commission, which is reviewing the Heavy Vehicle National Law, is well placed to recommend improvements to the Transport and Infrastructure Council.

## RECOMMENDATION 9.1 - REMOVE DETAIL FROM THE HVNL

The Heavy Vehicle National Law (HVNL) should be amended to remove unnecessarily prescriptive elements from the legislation and to support greater use of 'deemed to comply' provisions in other regulatory instruments.

In order to give effect to this recommendation, legislative change would be required from all governments that are signatory to the HVNL. This process should be led by the Australian Government through the Transport and Infrastructure Council.

These provisions would operate alongside recommendation 10.1.

#### RECOMMENDATION 10.1 – ALLOW FOR TIERED REGULATION IN THE HVNL

The Heavy Vehicle National Law (HVNL) should be amended to provide the National Heavy Vehicle Regulator (NHVR) with sufficient powers to give effect to a tiered system, in which relatively prescriptive regulation operates alongside outcomes-based options. The amendments should establish clear roles and responsibilities for the NHVR, including adequate discretion, decision-making frameworks, and requirements for monitoring, compliance and enforcement activity.

The system would need to reflect the varied preferences and capabilities of businesses, such that:

- businesses seeking certainty or simplicity can rely on prescriptive regulation (to be streamlined as per recommendation 9.1)
- businesses seeking flexibility to operate outside of prescriptive regulation, while meeting agreed safety outcomes, can seek assurance from the regulator.

The NHVR should expand its use of assurance model/s to allow businesses to seek flexibility on individual aspects of their operations or more substantially across their operations. The design should recognise that some businesses will be able to design comprehensive safety management systems, while others will benefit from pre-approved 'off-the-shelf' solutions. To the extent possible, the assurance model/s should avoid subjecting businesses to duplicative audit processes.

In order to give effect to this recommendation, legislative change would be required from all governments that are signatory to the HVNL. This process should be led by the Australian Government through the Transport and Infrastructure Council. The NHVR's expanded capabilities would also require adequate resourcing.

These provisions would operate alongside recommendation 9.1.

# Further policy action 2: Take a risk-based approach to safety regulation, compliance, and enforcement

## RECOMMENDATION 9.2 - NATIONAL REGULATORS SHOULD TAKE A RISK-BASED APPROACH

The Australian Government should work with the Transport and Infrastructure Council to develop a statement of expectations for the National Heavy Vehicle Regulator (NHVR) and the Australian Maritime Safety Authority (AMSA). The statement should direct the national transport safety regulators to take a risk-based approach to regulation, enforcement and other functions.

# Addressing derogations

RECOMMENDATION 4.1 - IDENTIFY DEROGATIONS FROM HEAVY VEHICLE AND RAIL LAWS

The Transport and Infrastructure Council should re-affirm the principle of consistent national transport safety regulation. The members of the Council should commit to removing material derogations from the Heavy Vehicle National Law and Rail Safety National Law.

## RECOMMENDATION 6.3 - RISK-BASED FATIGUE MANAGEMENT IN HEAVY VEHICLE REGULATION

The Transport and Infrastructure Council should endorse amendments to the Heavy Vehicle National Law that promote a risk-based approach to fatigue management regulation for heavy vehicles.

The amendments to the Heavy Vehicle National Law should remove detailed fatigue management requirements from legislation and empower the National Heavy Vehicle Regulator to:

- publish 'acceptable means of compliance' with fatigue management regulations
- set outer limits on driving hours
- provide concessions from prescribed aspects of fatigue management regulation, where the National Heavy Vehicle Regulator is satisfied that more effective systems of fatigue management are in place.

## RECOMMENDATION 6.4 - RISK-BASED FATIGUE MANAGEMENT IN RAIL REGULATION

The Transport and Infrastructure Council should endorse amendments to the Rail Safety National Law and any relevant State, Territory and Australian Government laws and regulations to promote a nationally-consistent risk-based approach to fatigue management regulation for rail transport.

The amendments to the Rail Safety National Law and other legislation should remove detailed fatigue management requirements from legislation and empower the National Rail Safety Regulator to:

- publish 'acceptable means of compliance' with fatigue management regulations
- set outer limits on driving hours
- provide concessions from prescribed aspects of fatigue management regulation, where the National Rail Safety Regulator is satisfied that more effective systems of fatigue management are in place.

# Addressing grandfathering provisions

FINDING 4.3 - ONGOING GRANDFATHERING OF DOMESTIC COMMERCIAL VESSELS HAS COSTS

It is unclear whether grandfathering was intended to be a temporary or permanent measure under the Marine Safety National Law. Open-ended grandfathering perpetuates the inconsistencies of previous State and Territory regimes, delays the adoption of new safety practices and complicates enforcement.

## RECOMMENDATION 6.6 - END GRANDFATHERING OF VESSEL SURVEY REQUIREMENTS

The Council of Australian Governments and the Australian Maritime Safety Authority should wind up the grandfathering of safety regulations under the Marine Safety National Law. Priority should be given to ending grandfathering arrangements that relate to vessel survey requirements and fire detection and smoke detection systems.

The Australian Maritime Safety Authority should use the information from vessel survey and other sources to review the safety risks arising from other grandfathering arrangements and the costs to vessel operators of removing the arrangements. Where the safety benefits exceed the costs, grandfathering arrangements should be removed.

## The Regulation of Class 4 vessels

FINDING 5.2 – STATE AND TERRITORY AGENCIES SHOULD REGULATE HIRE AND DRIVE VESSELS

Class 4 'Hire and Drive' recreational vessels have more in common with recreational vessels (which continue to be regulated by State and Territory government agencies) than with other types of commercial vessels. The decision to transfer safety regulation of these vessels from State and Territory agencies to the national regulator was not justified on the basis of safety, or efficient or effective regulation. State and Territory government agencies are better placed to regulate these vessels than the Australian Maritime Safety Authority, particularly in relation to enforcement.

## RECOMMENDATION 5.3 - RETURN HIRE AND DRIVE VESSEL REGULATION TO THE STATES

The Australian Government should negotiate with State and Territory governments to return responsibility for regulating Class 4 Domestic Commercial Vessels (Hire and Drive) to State and Territory agencies.

28

# Australian Design Rules

## FINDING 8.1 - REGULATION OF HEAVY VEHICLE TECHNOLOGIES

Heavy vehicle regulations, including the Australian Design Rules and some regulations enacted by the Heavy Vehicle National Law, have discouraged or delayed the use of newer, safer technologies. More flexible, risk-based regulation could improve safety by encouraging the uptake of twin steer prime movers and fatigue monitoring technologies.

## RECOMMENDATION 8.1 - AUSTRALIAN DESIGN RULES

The Australian Government should amend the Australian Design Rules (ADRs) and in-service vehicle standards to allow for new transport technologies, including automated technologies, with proven productivity or safety benefits. These amendments should aim to:

- achieve national and international consistency of laws and standards where
  practicable, and accept safety devices adopted in other leading economies as
  'deemed to comply'. In cases where the Government believes it would be unsafe to
  apply an international standard in Australia, it should provide evidence to support
  this view through a transparent review of the ADR, conducted within a defined
  timeframe
- address specific ADR issues identified as significantly hindering productivity or safety (such as safety technologies unable to be used due to width and mass limits).

# Further policy action 3: Improve infrastructure provision and management

Improving road access

FINDING 7.3 – PRODUCTIVITY GAINS FROM THE REFORMS HAVE BEEN SMALLER THAN EXPECTED

Productivity gains from the reforms have been much smaller than the original optimistic estimates. Despite some improvements in heavy vehicle access, there has been little improvement on key freight routes, and the increase in the number of higher productivity vehicles has been small relative to the size of the whole heavy vehicle fleet. There is scope for significant further productivity gains with additional reforms.

## FINDING 7.4 - THE PROCESSING OF SOME ACCESS DECISIONS IS SLOW AND LACKS EVIDENCE

Some local governments struggle to deliver timely heavy vehicle access assessments, and access decisions often lack transparency. Road managers are using the National Heavy Vehicle Regulator guidelines for granting access inconsistently, which can result in different assessments on similar roads.

## RECOMMENDATION 7.3 - RISK-BASED ASSESSMENT OF HEAVY VEHICLE ACCESS PERMITS

The National Heavy Vehicle Regulator should negotiate with individual road managers to facilitate a risk-based assessment of permits, using information from previous access permit approvals on each route. This information should be used to construct more flexible pre-approved permit arrangements with road managers.

## RECOMMENDATION 7.4 - TRANSPARENT ACCESS PERMIT DECISIONS AND PROCESSING TIMES

The National Heavy Vehicle Regulator should publish detailed information online about access permit decisions and processing times. The National Heavy Vehicle Regulator should engage with industry and road managers to determine the form of this information.

## RECOMMENDATION 7.5 - EXPANDING AS-OF-RIGHT HEAVY VEHICLE ACCESS NETWORKS

The Council of Australian Governments should direct road managers (including the state road authorities) to work with the National Heavy Vehicle Regulator to expand key freight routes covered by notices, allowing as-of-right access for larger vehicle types. The focus of this work should include expanding gazetted access networks for:

- vehicles approved through the Performance-Based Standards (PBS) scheme (including PBS B-doubles, A-doubles and B-triples), at least to match the networks for the equivalent non-PBS vehicles
- types of vehicles for which permit applications are almost universally approved.

Road managers should upgrade road infrastructure to allow heavy vehicle access where the benefits exceed the costs. Where road network constraints prevent heavy vehicle access, road managers should ensure that there are adequate truck stops and logistics centres to allow larger vehicles to be broken down into smaller combinations.

## FINDING 10.2 – SOME ROAD MANAGERS LACK RESOURCING, EXPERTISE, AND INFORMATION

Some road managers, particularly local governments, lack the in-house expertise and resources to assess heavy vehicle access applications. Some also lack essential information on the state and capacity of their road infrastructure. While resourcing is important, more resources alone will not guarantee greater efficiency. Other factors — including access to data and appropriate technical skills, and economies of scale in permit applications — also contribute to greater efficiency.

#### RECOMMENDATION 10.5 - ADEQUATE RESOURCING FOR ROAD MANAGERS

The Council of Australian Governments should ensure that local governments have access to the financial and technical capacity they need to perform their role as asset managers for local roads. Transparency and accountability for performance should accompany any additional support, particularly with respect to access permit processing times and the use of notices to gazette heavy vehicle routes.

## RECOMMENDATION 10.4 - HEAVY VEHICLE ROAD REFORM MUST CONTINUE

Governments at all levels should maintain their commitment to the Heavy Vehicle Road Reform process through the remaining trial, development, and implementation phases.

RECOMMENDATION 10.3 – GOVERNMENTS INVESTING IN INFRASTRUCTURE ON MAJOR FREIGHT ROUTES SHOULD CONSIDER INTERMODAL OPTIONS

When considering the costs and benefits of large-scale infrastructure projects to improve the flow of freight on major routes, governments should consider intermodal options which may assist in managing expanding freight volumes. Governments should be neutral on technology and infrastructure choices, focusing on efficient, long-term outcomes.

# Further policy action 4: Improve the evidence base for regulatory and policy decisions

## RECOMMENDATION 5.1 - ANNUAL HEAVY VEHICLE SAFETY REPORT

The Transport and Infrastructure Council should direct the National Heavy Vehicle Regulator to collect data on key safety risks and outcomes and publish the data each year in a similar form to the Office of the National Rail Safety Regulator's annual *Rail Safety Report*.

## RECOMMENDATION 6.5 - IMPROVE MARITIME INCIDENT REPORTING AND DISCLOSURE

The Australian Government should direct the Australian Maritime Safety Authority to take steps to improve:

- incident reporting by owners of domestic commercial vessels
- its public disclosure of safety incidents.

AMSA should report fatalities and injuries in greater detail, including a state-by-state and vessel-type breakdown of fatalities and injuries.

## FINDING 7.1 - COMPLIANCE COSTS ARE NOT ROUTINELY MONITORED AND REPORTED

Detailed data on the compliance costs for businesses from heavy vehicle, rail and domestic commercial vessel regulation have not been systematically collected, monitored and published. This has made it difficult to assess how the regulatory burden has changed. With the limited information available, it is not clear whether compliance costs have increased or decreased overall as a result of the harmonisation reforms. Compliance costs appear to have decreased for some operators, particularly in rail.

# RECOMMENDATION 7.1 - REGULATORS SHOULD REPORT ON COMPLIANCE COSTS

The National Heavy Vehicle Regulator, the Office of the National Rail Safety Regulator and the Australian Maritime Safety Authority should monitor compliance costs and report on these costs, disaggregated by key regulatory activity, commencing in 2021.

## FINDING 7.2 - LACK OF DETAILED ADMINISTRATIVE COST INFORMATION

A time series of consistent and detailed administrative cost information on the regulation of heavy vehicles, rail and domestic commercial vessels is not available. Furthermore, the three national regulators do not report administrative cost information disaggregated by key regulatory activity. This has limited the Commission's ability to assess whether administrative costs have fallen as a result of the national reforms. It also limits the ability of stakeholders to monitor, raise concerns and discuss opportunities for improvement with the regulators.

## RECOMMENDATION 7.2 - REGULATORS SHOULD DISAGGREGATE ADMINISTRATIVE COSTS

The National Heavy Vehicle Regulator, the Office of the National Rail Safety Regulator and the Australian Maritime Safety Authority should disaggregate their administrative costs by key regulatory activity in their annual reports.

# The sharing and use of transport data

## FINDING 8.2 - GOVERNMENT ROLE IN TRANSPORT DATA

Transport data can be used by various parties for diverse purposes. Governments can best provide value by:

- facilitating the sharing of data by developing common data protocols and standards
- establishing regulatory frameworks for data collection, storage, analysis and access
- prioritising data uses with the highest value, such as data-sharing projects with the potential to significantly improve productivity in the transport sector.

## RECOMMENDATION 8.2 - TRANSPORT DATA TO IMPROVE PRODUCTIVITY

Governments should prioritise the uses of data with the greatest potential to improve productivity in the transport sector. These include facilitating coordination between road users and infrastructure managers to:

- inform the provision and management of road infrastructure
- inform decisions around permits and road access for heavy vehicles
- assist in the development and implementation of the Heavy Vehicle Road Reform agenda.

The Australian Government should give priority to these uses of transport data when developing the National Freight Data Hub.

## FINDING 9.1 - DATA SHARING HAS BROAD BENEFITS

While some potential benefits of logistics data are specific to the individual operator, there are larger, broader benefits from the collection and integration of data across many operators. These broader benefits may be underprovided if data generation and sharing are not facilitated.

## RECOMMENDATION 9.3 - HARNESSING DATA FOR POLICY AND REGULATION

Governments (and their agencies) and industry should consider how best to harness logistics and telematics data to improve incentive-based safety regulation, with the aim of influencing behaviours that increase safety and productivity.

Governments and regulators should aim to facilitate operators' adoption of technologies to generate and share data by:

- providing legal assurances about the acceptable use of such data
- clarifying the value to individual operators of their participation in data-sharing regimes.

# No-blame investigation

## FINDING 9.2 - LACK OF REPORTING AND ANALYSIS OF SAFETY INCIDENTS

There is a lack of publicly available data on safety incidents involving heavy vehicles. Analysis of national incident data, supported by targeted no-blame incident investigation, would help to identify systemic issues and inform safety policy.

RECOMMENDATION 9.4 - IMPROVING SAFETY THROUGH NO-BLAME INVESTIGATION AND RESEARCH

The Australian Government should:

- provide a sufficient annual appropriation to enable the Australian Transport Safety Bureau (ATSB) to carry out its functions, both existing and as proposed in this inquiry
- formalise the role of the ATSB in conducting investigations and research involving Domestic Commercial Vessels and rail
- amend the Transport Safety Investigation Act 2003 to enable the ATSB to conduct research and investigate incidents involving heavy vehicles, and autonomous vehicle technologies
- direct the ATSB to undertake a clearly defined, phased transition into the heavy vehicle role, including an initial period of data collection and research to identify any systemic issues and incident types with the potential to inform policy.

The costs of the ATSB should not be subject to cost recovery from industry, but the States and Territories should support the Australian Government by providing a consistent contribution to its total costs, rather than on a case-by-case basis.