



# A Review Of Supply Chain Auditors and Safe Work Training in the Transport Sector

A report prepared for the Transport  
Education Audit Compliance Health  
Organisation (TEACHO)

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Corresponding Author:  
Associate Professor Sarah Kaine  
E: Sarah.Kaine@uts.edu.au

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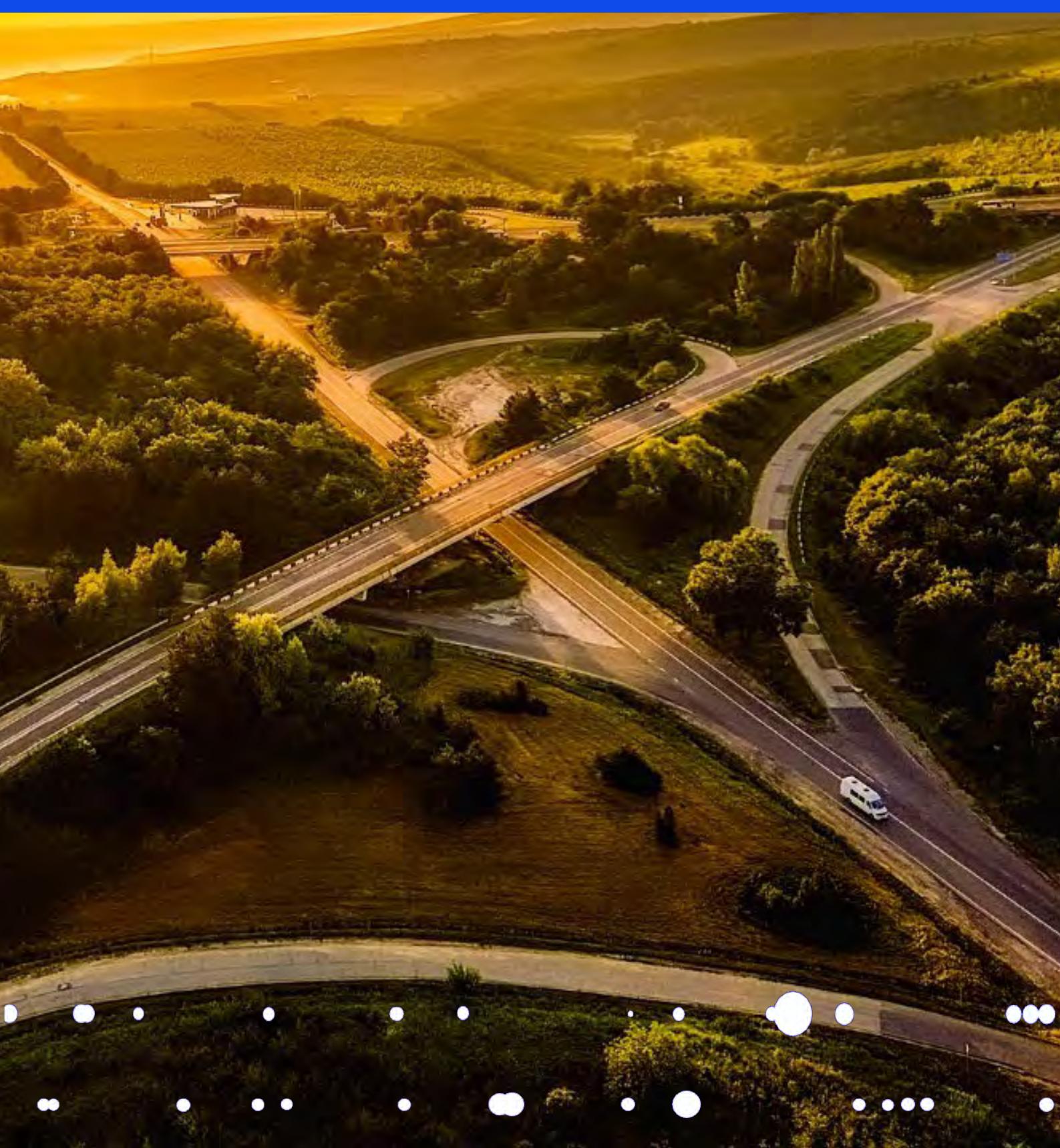
#### Acknowledgements

We would like to thank all those who participated in informal interviews to assist our research and Sarah Bolger and Katie Johns for research assistance

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# Research Overview



# Research Overview

## Aims and scope

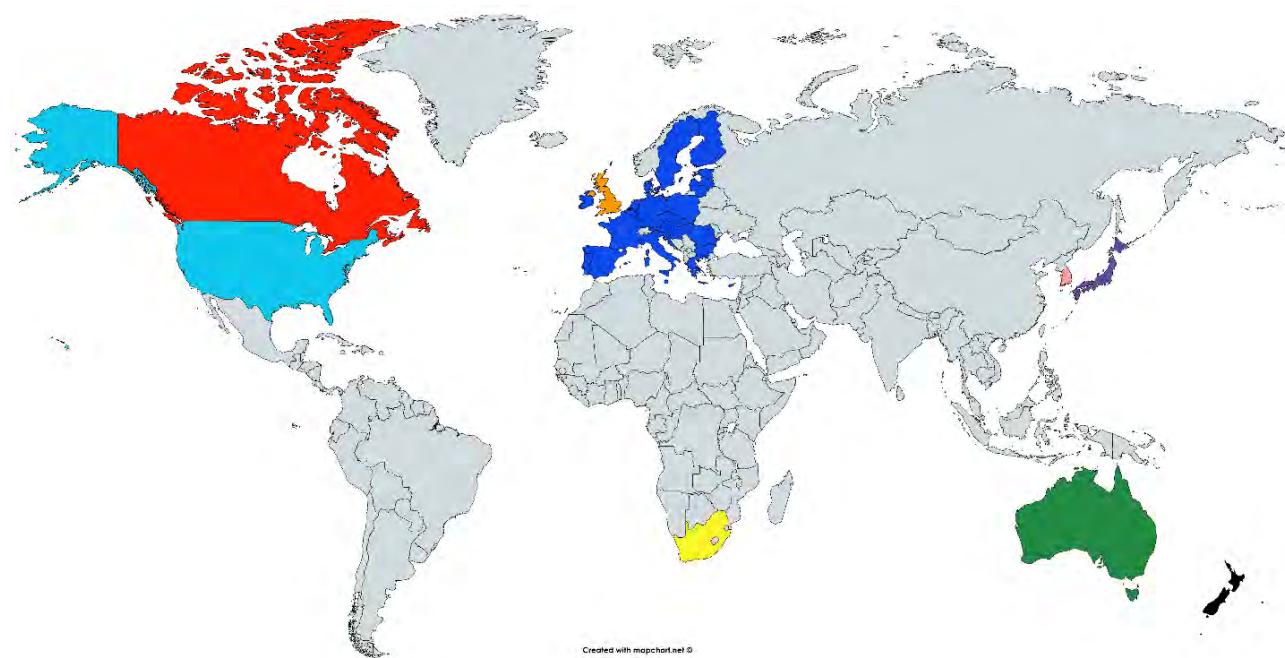
The following report addresses the aim of the research brief received from the Transport Education Audit Compliance Health Organisation (TEACHO). Specifically, to conduct a review of national and international industry bodies, regulations or initiatives that have been established for the following purposes:

1. To provide education and training in safe work and standards in the transport sector
2. To undertake audits of supply chain and contract networks

The review was to include national schemes and funds that perform one of the following functions in the supply chain, transport and logistics sectors:

1. Address safe performance standards
2. Address planning standards
3. Review appropriate payment regimes
4. Examine enforceable standards
5. Undertake dispute resolution

In line with the TEACHO brief, we have included international initiatives and the following countries and regions in the review (with our own addition of the Republic of Korea and South Africa),



### Included Countries and Regions

European Union	Canada
Australia	Republic of Korea
United Kingdom	Japan
United States of America	South Africa
New Zealand	

It was requested that the review also investigate three key aspects of these industry bodies, regulations and initiatives: effectiveness, cost-benefits and underpinning funding models. This information has been included where evaluations of schemes were available. However, there was very little publicly available data on these three criteria and the academic literature had a greater focus on the impacts of ineffective regulatory interventions or supply chain oversight as a means to deal with safety issues.<sup>1</sup> It is suggested that after consideration of the schemes presented in this report, TEACHO pursue more detailed information about the most relevant schemes.

## Method

Given the time available to prepare the report, the research was based on the collation and analysis of publicly available secondary data and academic literature. This process began with a systematic scanning of academic literature to identify key issues, potential schemes for further consideration and public policy developments in transport supply chains. Various combinations of key search terms were used in two electronic databases, Scopus and Google Scholar, and yielded 520 articles. The search terms used are shown in Table 1 below. Based on a review of the journal article titles and abstracts, and removal of duplicates, 37 of these articles were considered to be broadly relevant to the scope of this research. These articles are outlined in Appendix A. Of these articles, the greater majority dealt with matters such as external influences on unsafe driving practices, safety training for drivers and industry self-regulation through voluntary accreditation programs. These themes, and the associated literature are further explored in Table 2 below. A notable portion of research in this area has examined the impact of sleeping disorders, such obstructive sleep apnoea (OSA), on safety outcomes for drivers. However, such literature is not relevant to this research. The review of existing literature was thorough, but not exhaustive, as a comprehensive literature review was outside of the scope of this project. In a scoping interview with Professor Michael Quinlan the possibility of providing an overview, summary or database of existing (and evolving) literature on supply chains and safety was suggested. While this would have been a valuable supplement to the report and to future policy considerations, this was not possible in the time available.

## Literature Review

The key search terms used in the search of academic literature are outlined in Table 1 below.

**Table 1: Literature review - Key search terms**

Transport sector	Safety	Supply chain
Commercial drivers		
Commercial motor vehicle		
Driver	Compliance	
Road transport	Conditions	
Road transport industry	Pressure	
Self-regulation	Training	
Transport industry		
Truck		
Trucking		

<sup>1</sup> Michael Rawling, Nicole Shepherd, Richard Johnstone, and Igor Nossar. 'Australian Supply Chain Regulation: Practical Operation and Regulatory Effectiveness - Draft Report on Road Transport Sector Regulation', *University of Technology Sydney* (2019).

A summary of key themes that emerged in the relevant literature is provided in the table below.

**Table 2: Key themes in existing literature**

Key themes	Summary
<b>External influences on unsafe driving practices<sup>2</sup></b>	A wide range of external factors may influence drivers to engage in unsafe driving practices and, therefore, increase risks to drivers and other road users. Evidence supports the link between economic pressures and poorer work health and safety outcomes for drivers. For example, as a result of payment systems, drivers may associate unsafe driving practices, such as speeding or non-compliance with maximum working hours, with economic gain, rather than losses. Non-compliance with work safety regulations, which is often a result of work pressures and scheduling of shifts, contributes to drivers' experience of fatigue and increased risk of road accidents. Further, evidence supports the claim that mandating minimum rates of pay for drivers, including for non-driving work, improves safety outcomes for drivers through reducing pay-based incentives to engage in unsafe driving practices.
<b>Safety training and education for drivers<sup>3</sup></b>	Existing research identifies safety-related training for drivers as an important measure for improving safety outcomes and preventing accidents. However, the absence of standardised training requirements in most jurisdictions reflects the lack of consensus within the road transport industry regarding the required content and duration of mandatory training programs, when in a driver's career this training is most effective, and how training should be delivered. Limited research has been conducted into the most effective approaches to delivering training in road transport and older research may not reflect changes in methods to teaching that have emerged in the digital era. Further, negative attitudes towards safety standards is linked to violations of maximum working hour regulations. Therefore, it is suggested that training which focuses on the positive outcomes associated with safe behaviour through compliance with regulations can positively influence drivers' behavioural intentions on the road.

<sup>2</sup> Claire Mayhew and Michael Quinlan, 'Economic Pressure, Multi-Tiered Subcontracting and Occupational Health and Safety in Australian Long-Haul Trucking', *Employee Relations* 28, no. 3 (2006); Stephen M. Swartz and Matthew A. Douglas, 'The Independence of Independents: Influences on Commercial Driver Intentions to Commit Unsafe Acts', *Transportation Journal* 48, no. 1 (2009); Elyria Kemp, Steven W. Kopp and Eramus Kemp, 'Six Days on The Road', *The International Journal of Logistics Management* 24, no. 2 (2013); Michael R. Crum and Paula C. Morrow, 'The Influence of Carrier Scheduling Practices On Truck Driver Fatigue', *Transportation Journal* 42, no. 1 (2002); Richard J. Hanowski et al., 'Safety Issues in Local/Short Haul Trucking: The Drivers' Perspective', *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 42, no. 17 (1998); Andrew Hopkins, 'Truck Deaths: A Suggestion', *Journal of Occupational Health and Safety - Australia and New Zealand* 8, no. 3 (1992); Paula C. Morrow and Michael R. Crum, 'Antecedents of Fatigue, Close Calls, and Crashes Among Commercial Motor-Vehicle Drivers', *Journal of Safety Research* 35, no. 1 (2004); Michael H. Belzer, 'The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety', presented to United States House of Representatives Committee on Small Business (2012); Simon J. Raftery, Jennifer A. L. Grigo and Jeremy E. Woolley, 'Heavy Vehicle Road Safety: Research Scan', *Journal of the Australasian College of Road Safety* 22, no. 3 (2011); Michael Rawling and Sarah Kaine, 'Regulating Supply Chains to Provide a Safe Rate for Road Transport Workers', *Australian Journal of Labour Law* 25 (2012).

<sup>3</sup> Suliman A. Gargoum et al., 'Towards Establishing Effective Commercial Driver Training Standards: Analysis of Industry Opinions from Alberta', *Canadian Journal of Civil Engineering* 44, no. 11 (2017); Stephen M. Swartz and Matthew A. Douglas, 'The Independence of Independents: Influences on Commercial Driver Intentions to Commit Unsafe Acts' (2009); Elyria Kemp, Steven W. Kopp and Eramus Kemp, 'Six Days on The Road' (2013); Simon J. Raftery, Jennifer A. L. Grigo and Jeremy E. Woolley 'Heavy Vehicle Road Safety: Research Scan', *Journal of the Australasian College of Road Safety* 22, no. 3 (2011)

<b>Industry self-regulation and voluntary accreditation programs<sup>4</sup></b>	<p>Evidence demonstrates that voluntary accreditation programs improve safety outcomes in the trucking industry. These types of self-regulation initiatives offer a less prescriptive approach to regulation, which promotes dialogue between industry stakeholders and can positively influence drivers' attitudes towards safety and its regulation. The impact of voluntary accreditation schemes on safety outcomes is evident in Australia, where vehicles accredited under TruckSafe and the National Heavy Vehicle Accreditation Scheme have demonstrated lower crash risks compared to non-accredited vehicles. However, existing research has also acknowledged the limitations of voluntary accreditation programs. For example, industry self-regulation is most effective when it supplements a strong state-based regulatory framework. Given the voluntary nature of self-regulation initiatives, the perceived threat of random audits and enforcement by state regulators must be sufficient to compel drivers and companies to comply with regulations. Further limitations are highlighted in research focusing on South Africa's Road Transport Management System (RTMS), which identifies lack of understanding of the certification process or awareness of RTMS as barriers to improving safety outcomes in the road transport industry.</p>
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<sup>4</sup> Christopher K. Walker, "Improving Safety in The Australian Trucking Industry: The Benefits of Voluntary Accreditation Programs", *Road and Transport Research* 21, no. 4 (2012); Paul A. Nordengen and Nico Pienaar, 'The Road Transport Management System (RTMS): A Self Regulation Initiative in Heavy Vehicle Transport In South Africa', *26<sup>th</sup> Annual Southern African Transport Conference (SATC): The Challenges Of Implementing Policy* (2007); Christopher K. Walker, 'Neoliberalism and the Reform of Regulation Policy in the Australian Trucking Sector: Policy Innovation or a Repeat of Known Pitfalls?', *Policy Studies* 37, no. 1 (2015); Abdool Kamdar et al., 'Operational Improvement Outcomes Through Voluntary Compliance in Road Transport Operations", *Proceedings of the International Conference on Industrial Engineering and Operations Management* (2018).

## Informal Interviews

In order to test that current academic and policy developments were not being overlooked, several informal telephone interviews were conducted.

A summary of information collected from informal telephone interviews is included below:

Professor Michael Quinlan - Emeritus Professor UNSW Business School

- Suggested a number of academics with expertise in road transport regulation or supply chains in different national contexts
- Recommended relevant literature for consideration (see Method section above)

Clare Tedestedt George – AUT University, New Zealand  
(28/08/19)

- PhD on occupational health, safety, and well-being of truck drivers in New Zealand
- Training from associations was more business focused, rather than safety
- Truck drivers express scepticism towards regulatory bodies and external training
- No existing training programs were successful or sustainable

Wayne Lewchuk – McMaster University, Canada  
(11/09/19)

- Research focuses on Canada – precarious employment and health, OHS in Ontario,
- Federal and provincial regulation in Canada
- Enforcement is concerned more with national security than labour standards
- Long-haul trucking in North America often crosses international borders – harder to regulate, not an issue that Australia faces
- New US-Mexico-Canada Agreement (replaced the North American Free Trade Agreement) should regulate labour flows in North America

Christopher Walker - Australia and New Zealand School of Government (ANZSOG), previously UNSW (17/09/19)

- Research focuses on public policy and regulation, industry self-regulation, transport regulation, mostly in Australia
- National Heavy Vehicle Regulator (NHVR) and National Transport Commission (NTC) are the leading regulatory bodies in Australia
- Road transport has been left behind other transport sectors - lack of professionalism in road transport results in less formal systems of controls, compared to other sectors (e.g. aviation)
- South Africa's Road Transport Management System (RTMS), a voluntary accreditation program that addresses driver health and wellbeing.

These informal interviews further informed the literature review through identifying articles relating to road transport and driver wellbeing, focusing on topics such as the impact of workplace deaths on families, the economic factors associated with long haul trucking, regulation of labour hire, and the impacts of injury and disease on drivers. Further details on these articles are noted in Appendix B. Additionally, there were email exchanges with Laurent Vogel from the European Trade Union Institute and Jans Buelens (Professor of Labour Law – University of Antwerpen which assisted in identifying local initiatives and ensuring coverage of geographically specific developments of relevance.

## Section One:

# Education and Training in Safe Work and Standards in the Transport Sector



## **Education and Training in Safe Work and Standards in the Transport Sector**

The following section provides an overview of national and international industry bodies, regulations or initiatives that have been established to provide education and training in safe work and standards or to undertake audits of supply chain and contract networks in the transport sector. The bodies were considered in light of their performance relative to the following functions in the supply chain, transport and logistics sectors (summarised in table form):

	Address safe performance standards
	Address planning standards
	Review appropriate payment regimes
	Examine enforceable standards
	Undertake dispute resolution

An explanation of each of the industry bodies, regulations or initiatives is provided, grouped by their country or region of application. This is followed by a more general discussion of the findings and key observations.

## International

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>International Labour Organization (ILO)</b> <i>Multi-national agency</i>	✓			✓	
<b>International Road Transport Union (IRU)</b> <i>Industry association</i>	✓			✓	
<b>International Transport Workers' Federation (ITF)</b> <i>Union</i>	✓			✓	
<b>UN Road Safety Collaboration (UNRSC)</b> <i>Multi-national collaboration</i>	✓				

### International Labour Organization (ILO)



The International Labour Organization (ILO) is a United Nations (UN) agency comprised of employer associations, workers unions and UN member states, with the tripartite structure designed to facilitate dialogue between its constituent groups.<sup>5</sup> The ILO addresses safe performance standards and enforceable standards through its focus on setting labour standards and developing policies to improve working conditions globally. In September 2019, the ILO convened a meeting of experts to assess and adopt 'Guidelines on the Promotion of Decent Work and Road Safety in the Transport Sector'. The Guidelines aim to establish a set of standards that address key safety issues in the industry based on best practice.<sup>6</sup> The draft guidelines acknowledge the link between road safety outcomes and work standards, including rate of pay and supply chain pressures. The proposed standards address a range of work health and safety related employment matters, including fair remuneration structures, calculation of rates, safety management systems, chain of responsibility and non-standard forms of employment. At the time of writing, ILO expert feedback on the draft guidelines was not yet available.

<sup>5</sup> 'About the ILO', International Labour Organization (ILO), 2019, <https://www.ilo.org/global/about-the-ilo/lang--en/index.htm>.

<sup>6</sup> ILO, *Draft Guidelines On The Promotion Of Decent Work And Road Safety In The Transport Sector* (Geneva: ILO, 2019).

## International Road Transport Union (IRU)



The International Road Transport Union (IRU) is an industry association that seeks to promote safe, efficient and innovative road transport networks. The IRU examines enforceable standards through its role in developing and promoting policies and standards to improve the safety and sustainability of the road transport industry. The association also addresses safe performance standards through the promotion of best practice amongst commercial operators in the road transport industry. Further, the IRU's certification arm, the IRU Academy, has Associate Training Institutes (ATIs) in over 45 countries and provides training courses for drivers and carriers to improve safety and efficiency in the road transport industry.<sup>7</sup> The IRU Academy also conducts campaigns to raise awareness of key industry issues and offers train-the-trainer courses to enhance the industry's training capacity.

## International Transport Workers' Federation (ITF)



The International Transport Workers' Federation (ITF) is an international association of trade unions, which works to assist its affiliated unions in advancing and protecting the interests of their transport worker members. The ITF addresses safe performance standards by campaigning for the rights of transport workers in supply chains and multinational companies. The association also addresses planning standards through its activities advocating for improvements in global and regional policies on work in the transport sector. The ITF's website notes achievements such as expanding its global union membership and negotiating collective-bargaining agreements (CBAs), for example, with UPS in Turkey.<sup>8</sup>

## UN Road Safety Collaboration (UNRSC)



The UN Road Safety Collaboration (UNRSC) is an informal consultative mechanism established by the UN's World Health Organization (WHO) to promote international collaboration between agencies to strengthen coordination of action on road safety.<sup>9</sup> The UNRSC addresses safe performance standards in road transport broadly through advocating for the adoption of evidence-based approaches to reducing road safety risks. However, it does not appear to undertake significant advocacy relating to the commercial road transport industry.

<sup>7</sup> 'IRU Academy', International Road Transport Union (IRU), 2019, <https://www.iran.org/iru-academy>.

<sup>8</sup> 'Our Achievements', International Transport Workers' Federation (ITF), 2019, <https://www.itfglobal.org/en/about-us/our-achievements>.

<sup>9</sup> 'United Nations Road Safety Collaboration', World Health Organization (WHO), 2019, <https://www.who.int/roadsafety/about/en/>.

## European Union (EU)

### Regional Initiatives

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>European Agency for Safety and Health at Work (EU-OSHA) Multi-national agency</b>	✓				
<b>European Foundation for the Improvement of Living and Working Conditions (Eurofound) Multi-national agency</b>	✓			✓	
<b>European Transport Safety Council (ETSC) Non-profit organisation</b>	✓			✓	
<b>European Transport Workers' Federation (ETF) Union</b>	✓			✓	

### European Agency for Safety and Health at Work (EU-OSHA)



The European Agency for Safety and Health at Work (EU-OSHA) is an EU agency, which seeks to improve safety, productivity and working conditions in workplaces across Europe. EU-OSHA's work contributes to advancing the European Commission's Strategic Framework for Safety and Health at work 2014-2020. The EU agency addresses safe performance standards through undertaking research to identify workplace risks and potential solutions and campaigning to inform workers and businesses about risk prevention. In September 2018, EU-OSHA hosted a seminar in Spain on the current and potential uses of e-tools in relation to occupational health and safety in the road transport sector.<sup>10</sup> The seminar facilitated dialogue between government and industry bodies about the role that different stakeholders can play in reducing work-related safety risks in the road transport industry and potential solutions to existing safety risks.

<sup>10</sup> 'Seminar reports - Occupational safety and health in relation to driving/road transport', European Agency for Safety and Health at Work, 2018, <https://osha.europa.eu/en/tools-and-publications/seminars/occupational-safety-and-health-relation-drivingroad-transport>.

## European Foundation for the Improvement of Living and Working Conditions (Eurofound)



**The European Foundation for the Improvement of Living and Working Conditions (Eurofound)** is an EU agency, which works to inform employment and work-related policy in Europe<sup>11</sup>. Eurofound addresses safe performance standards and enforceable standards through conducting research on working conditions and providing expert advice to EU institutions and member states. The EU agency has previously conducted research into monitoring working conditions and the impact of EU directives on collective bargaining in the road transport industry. However, the scope of Eurofound's work is broad and, therefore, its research and advocacy relating to working conditions in the road transport sector is limited.

## European Transport Safety Council (ETSC)



**The European Transport Safety Council (ETSC)** is an independent non-profit organisation, which works to reduce transport-related fatalities and injuries in Europe. The ETSC addresses safe performance standards and enforceable standards through undertaking research into best practice approaches to regulating safety in the transport sector and providing expert advice to the European Commission, European Parliament and EU member states to inform policy development and promote the harmonisation of high-quality EU safety standards.<sup>12</sup> The ETSC is funded by its member organisations and through projects that are co-funded by the European Commission or through public and private sector sponsorship.

## European Transport Workers' Federation (ETF)



**The European Transport Workers' Federation (ETF)** is a pan-European association of trade unions, which advocates for employment standards for transport workers and promotes solidarity between transport unions across European borders. The ETF addresses safe performance standards through leading campaigns on safety in several branches of the transport industry, including road transports. The ETF also enforceable standards through developing policy recommendations for improving the enforcement of commercial road transport regulations in the EU.<sup>13</sup>

<sup>11</sup> 'Who we are', *Eurofound*, 2019, <https://www.eurofound.europa.eu/about-eurofound/who-we-are>

<sup>12</sup> 'About Us', *European Transport Safety Council (ETSC)*, 2019, <https://etsc.eu/about-us/>

<sup>13</sup> ETF, *The Extra-Mile Towards A Full-Fledged Enforcement Scenario in The EU Road Transport Sector - An ETF Proposal to Policy Makers* (Brussels: ETF, 2015).

## Country Specific Initiatives<sup>14</sup>

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Swedish Transport Workers' Union Union</b>	✓		✓	✓	
<b>Transportstyrelsen (Swedish Transport Agency) Government agency</b>	✓			✓	

### Swedish Transport Workers' Union



**Swedish Transport Workers' Union (*Transport*)** is a national union, which works to promote better wages and working conditions for transport industry workers. *Transport* reviews appropriate payment regimes through the negotiation of a collective agreement on behalf of transport workers. As there is no legislated minimum wage in Sweden, the union plays an essential role in securing work conditions in the transport industry and, consequently, union membership in Sweden is high, at 70-80% of workers.<sup>15</sup>

### Transportstyrelsen (Swedish Transport Agency)



**Transportstyrelsen (Swedish Transport Agency)** is a government agency, which is responsible for regulating commercial transport in Sweden and seeks to improve safety and environmental outcomes for commercial drivers.<sup>16</sup> The agency develops and implements regulations around driving and rest requirements for commercial drivers, and issues permits for drivers. In doing so they examine enforceable standards and address safe performance standards.

<sup>14</sup> Developments regarding 'Safe Rates' in the Netherlands is highlighted in Nossar & Amoresano 'Working paper: Delivering "Safe Rates" in today's road transport supply chains', however not enough information was provided for us to include in this report.

<sup>15</sup> 'This is the Swedish Transport Workers' Union', *Swedish Transport Workers' Union*, 2019, <https://www.transport.se/languages/#1472040329694-3917a851-83f1>.

<sup>16</sup> 'Commercial Transport', *Transportstyrelsen*, 2019, <https://www.transportstyrelsen.se/en/road/Commercial-transport/>

## Australia

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Bluecard Skills Training</b> <i>Statutory authority</i>	✓				
<b>National Heavy Vehicle Regulator (NHVR)</b> <i>Statutory authority</i>	✓			✓	
<b>National Transport Commission (NTC)</b> <i>Independent statutory body</i>	✓			✓	
<b>Retail Logistics Supply Chain Code of Practice</b> <i>Business driven standard</i>	✓	✓			
<b>Road Safety Remuneration Tribunal</b> <i>Independent statutory body (abolished)</i>	✓		✓	✓	✓
<b>Senate inquiry into the importance of a viable, safe, sustainable and efficient road transport industry</b> <i>Senate inquiry</i>	✓		✓	✓	
<b>Transport Industry Council</b> <i>Industry association</i>		✓	✓	✓	

	<b>Address safe performance standards</b>	<b>Address planning standards</b>	<b>Review appropriate payment regimes</b>	<b>Examine enforceable standards</b>	<b>Undertake dispute resolution</b>
<b>Transport Workers Union (TWU) Union</b>	✓		✓	✓	
<b>TruckSafe Business driven standard</b>	✓	✓			
<b>Victorian Small Business Commission (VSBC) Statutory authority</b>				✓	✓

### Bluecard Skills Training Passport System



The Bluecard Skills Training Passport System (Bluecard) is an entry level workplace health and safety (WHS) training program for the transport industry, which addresses safe performance standards. It is managed by the Transport Education Audit Compliance Health Organisation.<sup>17</sup> The Bluecard issued to a worker following completion of the WHS training can also be used to record other competencies and qualifications<sup>18</sup>.

The purpose of the Blucard is to:<sup>19</sup>

- Develop and maintain consistent standards of safety training in the Transport Industry.
- Build a co-operative employer/employee work environment that will promote safety and training of employees.
- Familiarise workers with basic safety needs in the Transport Industry.
- Increase understanding of the Acts and Regulations which govern safe workplace practices in the Transport Industry

<sup>17</sup> 'About us', TEACHO, 2019, <https://www.teacho.com.au/index.php/about>

<sup>18</sup> 'Welcome to our site' Bluecard, 2019, <https://www.bluecard.com.au/>

<sup>19</sup> 'The purpose of bluecard is to', Bluecard, 2019, <https://www.bluecard.com.au/index.php/31-for-single-articles/66-the-purpose-of-bluecard-is-to>



**The National Heavy Vehicle Regulator (NHVR)** is a statutory authority, which addresses enforceable standards by working to promote compliance and improve the efficiency and accuracy of heavy vehicle regulation across Australia's state and territory borders. The NHVR also addresses safe performance standards through the National Heavy Vehicle Accreditation Scheme (N HVAS), which provides a formal means of recognising the quality of an operator's safety and management systems.<sup>20</sup> The N HVAS is a form of industry co-regulation and grew from collaborative initiatives between road freight transport stakeholders across Australia.<sup>21</sup>

The N HVAS has been used by operators to demonstrate compliance with road transport regulations and covers operational matters through its four accreditation modules:<sup>22</sup>

- Mass management
- Maintenance management
- Basic fatigue management
- Advanced fatigue management

Research into voluntary accreditations programs and self-regulation in Australia's road transport industry has identified N HVAS as a flexible and innovative approach to regulation that was developed in partnership with the industry.<sup>23</sup> However, it is noted that regulation through this type of initiative focuses more on shaping driver and operator attitudes towards safety through education about safety, rather than adopting a punitive approach to ensuring compliance. Further, research has highlighted concerns about operators that produce the necessary documentation to meet N HVAS requirements, without the accreditation process significantly impacting their operations.<sup>24</sup> Therefore, the perceived threat of enforcement through random audits is necessary for improving safety outcomes of voluntary accreditation programs.

A 2018 report on Australia's Heavy Vehicle Safety Accreditation Schemes, undertaken for the NHVR, examined the effectiveness of the N HVAS, TruckSafe and the Western Australian Heavy Vehicle Accreditation (WAHVA) scheme.<sup>25</sup> Whilst the report identified the benefits of voluntary accreditation schemes, it also acknowledged that their effectiveness is hindered by the limited membership of operators, as available data suggests that approximately 20% of operators in Australia are certified by voluntary accreditation schemes.<sup>26</sup> Further, the report provided long-term recommendations for maximising positive safety outcomes and compliance in the road transport industry through accreditation programs, such as the introduction of mandatory accreditation requirements for carriers and the adoption of a national accreditation framework to improve consistency across standards and compliance processes.

<sup>20</sup> 'About the N HVAS', National Heavy Vehicle Regulator (NHVR), 2019, <https://www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme/about>.

<sup>21</sup> Louise Thornthwaite, 'Evaluating the Regulation of WHS through Supply Chain Codes of Conduct in the Retail Transport and Logistics Industry.' *Centre for Workforce Futures, Macquarie University* (2019).

<sup>22</sup> ibid

<sup>23</sup> Walker, 'Improving safety in the Australian trucking industry: the benefits of voluntary accreditation programs', (2012).

<sup>24</sup> Walker, 'Neoliberalism and the reform of regulation policy in the Australian trucking sector: policy innovation or a repeat of known pitfalls?' (2016).

<sup>25</sup> Fellows Medlock and Associates, *Analysis of Heavy Vehicle Safety Accreditation Schemes in Australia*, National Heavy Vehicle Regulator, 2018.

<sup>26</sup> ibid., 46.



The National Transport Commission (NTC) is an independent statutory authority, which seeks to improve safety, productivity and regulation in the transport sector. The NTC addresses safe performance and enforceable standards through leading and supporting land transport reform.<sup>27</sup> In November 2018, NTC commenced a review of the Heavy Vehicle National Law, based on recognition that the existing law does not reflect best practice and is not effective in promoting safety outcomes in the road transport industry.<sup>28</sup> The review seeks to develop options that improve safety, simplify administrative processes and provide more flexible compliance options. Further, the NTC partnered with the Cooperative Research Centre for Alertness, Safety and Productivity (Alertness CRC) to undertake a two-year study on the safety implications of the Heavy Vehicle National Law on driver fatigue.<sup>29</sup> The study examined the impact shift start times, shift lengths, breaks, and other factors on a driver's risk of experiencing fatigue. The research found that a driver's level of alertness is greatest during shifts that start between 6am and 8am.<sup>30</sup> It also identified instances where drivers are at a greater risk of fatigue, including after 15 hours of day driving, 6-8 hours of night driving, and when a driver's shift starts between midnight and 6am. The findings of this study were released in April 2019 and will inform the development of regulations around fatigue in the NTC's review of the HVNL.

## Retail Logistics Supply Chain Code of Practice (RLSC)



The Retail Logistics Supply Chain Code of Practice (RLSC) (previously the Retail Logistics Supply Chain Code of Conduct) is an industry led voluntary scheme, which addresses performance and planning standards. It is designed to increase awareness of responsibilities in the freight logistics supply chain, at all levels<sup>31</sup>. Representatives from retail, transport and logistics industries, including the TWU were consulted in developing the code.<sup>32</sup>

The code addresses operational matters such as:

- Scheduling and transit times
- Time slot management
- Speed compliance
- Vehicle safety
- Driver Fatigue Management including driver health and fitness for duty
- Safe loading practice including mass, dimension and load restraint

RLSC accreditation is based on an audit by an approved third party auditor comprising 127 questions, 73 of which are compulsory.<sup>33</sup> Compliance audits are undertaken annually. The audits are framed as a way for supply chain members to keep up to date with amendments to legislation and help improve compliance.<sup>34</sup>

<sup>27</sup> 'Who we are & what we do', National Transport Commission (NTC), 2019, <https://www.ntc.gov.au/about-ntc/who-we-are-what-we-do/>.

<sup>28</sup> 'Heavy Vehicle National Law Review', NTC, 2019, <https://hvnlreview.ntc.gov.au/>

<sup>29</sup> 'Heavy Vehicle Driver Fatigue Data', NTC, 2019, <https://www.ntc.gov.au/current-projects/heavy-vehicle-driver-fatigue-data/>

<sup>30</sup> 'Heavy Vehicle Driver Fatigue Research Key Findings', NTC, 2019, [https://www.ntc.gov.au/Media/Reports/\(4979F68F-2EC5-5CAF-2337-4EAAA5179E74\).pdf](https://www.ntc.gov.au/Media/Reports/(4979F68F-2EC5-5CAF-2337-4EAAA5179E74).pdf).

<sup>31</sup> 'Retail logistics supply chain code of practice', Australian Logistics Council, 2011, [http://austlogistics.com.au/wp-content/uploads/2011/03/RLSC\\_Flyer\\_final.pdf](http://austlogistics.com.au/wp-content/uploads/2011/03/RLSC_Flyer_final.pdf)

<sup>32</sup> Louise Thorntwaite, 'Evaluating the Regulation of WHS through Supply Chain Codes of Conduct in the Retail Transport and Logistics Industry.' Centre for Workforce Futures, Macquarie University (2019).

<sup>33</sup> ibid

<sup>34</sup> 'Retail logistics supply chain code of practice', Australian Logistics Council, 2011, [http://austlogistics.com.au/wp-content/uploads/2011/03/RLSC\\_Flyer\\_final.pdf](http://austlogistics.com.au/wp-content/uploads/2011/03/RLSC_Flyer_final.pdf)

## Road Safety Remuneration Tribunal (RSRT)



The Road Safety Remuneration Tribunal (RSRT) was an independent body that was established under the *Road Safety Remuneration Act 2012* (Cth) to remove remuneration-related incentives and pressures in road transport supply chains, which contribute to unsafe driving practices.<sup>35</sup> The RSRT addressed safe performance standards, enforceable standards and payment regimes by imposing mandatory obligations on all participants within road transport supply chains, in relation to working conditions and pay.<sup>36</sup> Further, the tribunal was vested with the responsibility to resolve disputes between different participants in road transport industry supply chains.

The RSRT began bridging the gap between Occupation Health Safety (OHS) laws and laws regarding payments structures and working conditions<sup>42</sup>

The tribunal was abolished by the Federal Parliament in April 2016, following concerns about its impact on the livelihoods of owner-drivers. Existing research has identified the RSRT as ‘a world-leading initiative’ in the road transport industry and that, in the absence of this type of mandatory regulation, the regulation of pay and working conditions in road transport supply chains will remain inadequate.<sup>38</sup> Whilst there is national uniformity in work health and safety regulation that has remained following the abolition of the tribunal, it fails to address the link between driver pay and safety outcomes.<sup>39</sup>

## Senate inquiry into the importance of a viable, safe, sustainable and efficient road transport industry



A Senate inquiry into the importance of a viable, safe, sustainable and efficient road transport industry was established in September 2019 and referred to the Rural and Regional Affairs and Transport References Committee.<sup>40</sup> The inquiry’s terms of reference include ‘the importance of an enforceable minimum award rate and sustainable standards and conditions for all stakeholders in the road transport industry’ and ‘the training and career pathways to support, develop and sustain the road transport industry’.<sup>41</sup> The Rural and Regional Affairs and Transport References Committee is expected to report on the matter by April 2020.

<sup>35</sup> Michael Rawling et al., *Australian Supply Chain Regulation: Practical Operation and Regulatory Effectiveness - Draft Report On Road Transport Sector Regulation* (University of Technology Sydney, 2017).

<sup>36</sup> Michael Rawling, Richard Johnstone and Igor Nassar, ‘Compromising Road Transport Supply Chain Regulation: The Abolition of The Road Safety Remuneration Tribunal’, *Sydney Law Review* 39, no. 3 (2017).

<sup>37</sup> Michael Rawling and Sarah Kaine, ‘Regulating supply chains to provide a safe rate for road transport workers’, *Australian Journal of Labour Law* 25, no. 3 (2012).

<sup>38</sup> Rawling, Johnstone and Nossar, ‘Compromising Road Transport Supply Chain Regulation: The Abolition of the Road Safety Remuneration Tribunal’.

<sup>39</sup> Michael Rawling et al., *Australian Supply Chain Regulation: Practical Operation And Regulatory Effectiveness - Draft Report On Road Transport Sector Regulation* (University of Technology Sydney, 2017).

<sup>40</sup> ‘Importance of a viable, safe, sustainable and efficient road transport industry’, *Parliament of Australia*, 2019, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Rural\\_and\\_Regional\\_Affairs\\_and\\_Transport/RoadTransportIndustry](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/RoadTransportIndustry).

<sup>41</sup>‘Terms of Reference’, *Parliament of Australia*, 2019, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Rural\\_and\\_Regional\\_Affairs\\_and\\_Transport/RoadTransportIndustry/Terms\\_of\\_Reference/](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/RoadTransportIndustry/Terms_of_Reference/).

## Transport Industry Council



The Transport Industry Council is a body that was established under the *Owner Drivers and Forestry Contractors Act 2005* and is comprised of 10 members, including an independent chairperson, that are appointed by the Minister for Industrial Relations. Members include nominated representatives from the Transport Workers Union, the Victorian Transport Association, the Victorian Trades Hall Council, the Australian Industry Group, and the Victorian Chamber of Commerce and Industry.<sup>42</sup> The Transport Industry Council addresses planning standards and enforceable standards through the provision of recommendations to the Minister for Industrial Relations regarding the impact of commercial practices on owner drivers. The Council's recommendations relate to matters such as codes of practice, contracts, rates and costs schedules for owner drivers.

## Transport Workers Union (TWU)



The Transport Workers Union (TWU) is a union that advocates for safer and fairer working conditions on behalf of road transport and aviation workers. The TWU examines safe performance standards, enforceable standards and payment regimes through campaigning for the adoption of a "Safe Rates" system to guarantee minimum rates of pay for transport workers.<sup>43</sup> The "Safe Rates" system seeks to ensure that companies at the top of supply chains are paying at least minimum rates to prevent the emergence of remuneration-related incentives to undertake unsafe work practices. It is noted that enterprise agreements between the TWU and carriers establish working conditions related to hours of work, types of employment and wages. Whilst these enterprise agreements promote safer conditions for drivers, they do not address the safety risks that emerge from supply chain pressures.

## TruckSafe



TruckSafe is an industry initiative that aims to improve the safety and professionalism of trucking operators nationwide, while delivering a competitive advantage to accredited operators.<sup>44</sup> TruckSafe focuses on operators having the rights systems in place to promote a safe working environment, in doing so it addresses safe performance standards and planning standards. The TruckSafe code of conduct addresses operational matters such as.<sup>45</sup>

- Management and maintenance standards
- Training
- On road compliance incl. safety management systems, mass, dimension, load restraint, speed management, driving hours and fatigue.
- Fitness for duty and driver
- Driver health

<sup>42</sup> 'Transport Industry Council', State Government of Victoria, 2019, <https://www.vic.gov.au/transport-industry-council>.

<sup>43</sup> 'Safe Rates', Transport Workers Union (TWU), 2019, <https://www.twu.com.au/campaigns/safe-rates/>.

<sup>44</sup> 'What is TruckSafe' TruckSafe Australian Trucking Association, 2019 , <https://www.trucksafe.com.au/about/what-is-trucksafe/>.

<sup>45</sup> Louise Thorntwaite, 'Evaluating the Regulation of WHS through Supply Chain Codes of Conduct in the Retail Transport and Logistics Industry.' Centre for Workforce Futures, Macquarie University (2019).

Application and accreditation includes a number of steps:<sup>46</sup>

1. Complete the member application documents and review the TruckSafe business rules and code of conduct
2. Use the TruckSafe implementation kit to implement the standards and complete the audit application form
3. TruckSafe selects the auditor who will contact the operator to set an appropriate time and date for the audit
4. Audit report is assessed by the TruckSafe Secretariat staff and then passed on to the TruckSafe Industry Accreditation Council
5. Accreditation is granted and the operator is issued with a letter and certificate of accreditation
6. Bi-annual compliance audits are undertaken

## Victorian Small Business Commission (VSBC)



The Victorian Small Business Commission (VSBC) is a statutory authority that promotes a fair, competitive environment for small businesses in Victoria. The VSBC examines enforceable standards and undertakes dispute resolution through its mediation function. This function is established under the *Owner Drivers and Forestry Contractors Act 2005*, which regulates relations between contractors and hirers in the transportation of goods and harvesting of forest products. The VSBC's dispute resolution process includes the provision of mediation services and assistance to facilitate the resolution of issues between good freight owner drivers, forestry contractors, haulage contractors and hirers.<sup>47</sup> The predominant issues that the VSBC works to resolve include contract disputes, notice of termination, and breaches of the *Owner Drivers and Forestry Contractors Act 2005*. Contractors and hirers must seek resolution through the VSBC's mediation process before having their matter referred to the Victorian Civil and Administrative Tribunal (VCAT).

<sup>46</sup> 'The case for TruckSafe', *TruckSafe*, 2010 , <http://blanchard.com.au/wp-content/uploads/2009/11/The%2520case%2520for%2520TruckSafe.pdf>

<sup>47</sup> 'Goods and freight owner drivers', *Victorian Small Business Commission*, <https://www.vsbc.vic.gov.au/who-we-help/goods-and-freight-owner-drivers/>.

## United Kingdom (UK)

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Brake</b> <i>Non-profit organisation</i> <sup>48</sup>	✓				
<b>Driver and Vehicle Standards Agency (DVSA)</b> <i>Government agency</i>	✓	✓		✓	
<b>Driving for Better Business (DFBB)</b> <i>Government-backed program</i>	✓				
<b>Health and Safety Executive (HSE)</b> <i>Government agency</i>	✓			✓	
<b>Road Haulage Association (RHA)</b> <i>Industry association</i>	✓				
<b>RoadSafe</b> <i>Non-profit organisation</i>	✓				
<b>Royal Society for the Prevention of Accidents (RoSPA)</b> <i>Non-profit organisation</i>	✓				
<b>Scottish Occupational Road Safety Alliance (ScORSA)</b> <i>Multi-stakeholder</i>	✓				

<sup>48</sup> In the UK, there are several non-profit organisations working to promote safety in the road transport industry, with their functions ranging from advocacy to training. A selection of relevant charities have been included in this report

## Brake



**Brake** focuses on promoting road safety. It addresses safe performance standards to work towards achieving Vision Zero - the aspirational target of zero deaths on the road<sup>49</sup>. Brake provides advice on road risk management to operators through its campaign Global Fleet Champions<sup>50</sup>.

## Driver and Vehicle Standards Agency (DVSA)



The Driver and Vehicle Standards Agency (DVSA) is an executive agency of the UK Department of Transport, which seeks to equip motorists with the necessary knowledge and skills to drive safely. The DVSA conducts vehicle inspections and investigates breaches of regulations, which addresses safe performance standards and enforceable standards. DVSA's inspections of commercial vehicles is informed by its Operator Compliance Risk Score (OCRS) system, which is used to calculate the potential safety risks associated with commercial operators. The rating is based on data collected through vehicle tests and roadside inspections over a three-year period. A higher OCRS score increases an operator's chance of being subject to an inspection to determine compliance. However, DVSA data from 2015 indicates that 62.3% of operators were allocated a grey rating, which is used to signify that there is insufficient data to generate a score.<sup>51</sup> This reflects a significant limitation of the OCRS system in promoting compliance.

## Driving for Better Business (DfBB)



**Driving for Better Business (DfBB)** is a road safety program delivered by Highways England, a government-owned company, in collaboration with RoadSafe.<sup>52</sup> The program seeks to reduce work-related road risks through improving compliance with regulations and increasing knowledge about risk management. In doing so it addresses safe performance standards.

<sup>49</sup> 'About us and our supporters', *Brake*. n.d., <https://www.brake.org.uk/about>

<sup>50</sup> 'About Brake', *Global Fleet Champions*, 2019, <https://globalfleetchampions.org/about-us/about-brake/>

<sup>51</sup> Commercial Motor, 'Majority Of Operators Unclassified By OCRS Data', 2015, <https://www.commercialmotor.com/news/majority-of-operators-unclassified-by-ocrs-data>.

<sup>52</sup> 'What is Driving for Better Business', *Driving for Better Business (DfBB)*, 2018, <https://www.drivingforbetterbusiness.com/about-us/the-programme/>.

## Health and Safety Executive (HSE)



**The Health and Safety Executive (HSE)** is a UK government agency, which is guided by the objective of preventing work-related death, injury and ill health. HSE's functions include setting health and safety standards, developing evidence-based policy responses, providing advice on requirements for compliance, and undertaking enforcement. The agency addresses enforceable and safe performance standards in the context of work-related road safety. It provides information on employers' responsibilities, relevant laws, and appropriate approaches to risk management. For example, HSE's website includes a template for risk assessment for road haulage companies.<sup>53</sup> However, HSE's focus is on work-related road safety broadly and, therefore, information on safety for commercial drivers specifically is limited.

## Road Haulage Association (RHA)



**The Road Haulage Association (RHA)**, represents the interests of over 6,000 member companies.<sup>54</sup> RHA provides ISO-accredited manager and driver training courses and conducts health and safety audits to assist members in achieving compliance, and in doing so addresses safe performance standards in the industry. The industry association also provides legal service to members for issues relating to employment law and regulatory concerns.

## RoadSafe



**RoadSafe** focuses on promoting good practice and the adoption of a 'Safe System' approach to improving safety outcomes, which prioritises reducing fatalities and serious injuries over reducing the number of crashes.<sup>55</sup> The charity also works to promote collaborative efforts between key stakeholders, including industry professionals, private companies and government bodies.

## Royal Society for the Prevention of Accidents (RoSPA)



**The Royal Society for the Prevention of Accidents (RoSPA)** focuses on skills development to reduce risk of injury through accidents, including in the context of occupational road risk.<sup>56</sup> For example, RoSPA offers training courses on occupational driving safety and fleet management. The charity also provides training to assist operators to achieve compliance with international standards (ISO 39001 Road Traffic Safety Management).<sup>57</sup>

<sup>53</sup> *Example Risk Assessment For A Road Haulage Company* (Health and Safety Executive, 2013), <http://www.hse.gov.uk/risk/casestudies/pdf/roadhaulage.pdf>.

<sup>54</sup> 'About the RHA', Royal Haulage Association, 2019 <https://www.rha.uk.net/about-the-rha>.

<sup>55</sup> 'The Safe System – Adopting the Safe System', RoadSafe, 2019, <http://www.roadsafe.com/safesystem>.

<sup>56</sup> 'About the Royal Society for the Prevention of Accidents (RoSPA)', RoSPA, 2019, <https://www.rospa.com/About>

<sup>57</sup> 'Occupational Safety Training', RoSPA, 2019 <https://www.rospa.com/safety-training/work/>.

## Scottish Occupational Road Safety Alliance (ScORSA)



Multi-stakeholder initiatives in the road transport industry in the UK have played a role in promoting improved labour standards and safety outcomes for road transport workers. The Occupational Road Safety Alliance (ORSA), was established in 2002 and was comprised of a range of stakeholders, including employers, trade unions and associations, enforcement agencies, and safety organisations. ORSA worked to promote the effective management of occupational road safety risks by businesses through the provision of information to businesses,. ORSA also works facilitating networking opportunities to promote collaboration between relevant organisations. While ORSA has ceased activities the **Scottish Occupational Road Safety Alliance** (ScORSA) continues with its aim being to 'provide free information and support to assist Small and Medium Sized businesses to raise awareness of managing occupational road risk.'<sup>58</sup>

<sup>58</sup> 'Welcome to ScOrsa' (2019), <https://www.scorsa.org.uk/>

## United States (US)

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>American Association of Motor Vehicle Administrators (AAMVA)</b> <i>Non-profit organisation</i>				✓	
<b>American Trucking Association (ATA)</b> <i>Industry association</i>	✓				
<b>Federal Motor Carrier Safety Administration (FMCSA)</b> <i>Government agency</i>	✓			✓	
<b>National Highway Traffic Safety Administration (NHTSA)</b> <i>Government agency</i>	✓				
<b>National Institute for Occupational Safety and Health (NIOSH)</b> <i>Government agency</i>	✓				

## American Association of Motor Vehicle Administrators (AAMVA)



**The American Association of Motor Vehicle Administrators (AAMVA)** is a non-profit organisation that seeks to support North American enforcement agencies to achieve their objectives.<sup>59</sup> The AAMVA addresses enforceable standards through developing models for improving the administration and regulation of motor vehicles and highway safety. The association seeks to promote greater consistency and reciprocity between motor vehicle regulations in different states and provinces of the US and Canada.

## American Trucking Association (ATA)



**The American Trucking Association (ATA)** is an industry association, which seeks to provide a voice for the trucking industry in the US, through a strong federation of state associations, affiliated conferences and individual members<sup>60</sup>. The ATA addresses safe performance standards through advocating for trucking to be a safety-first industry and through developing and promoting policies to improve safety outcomes in the trucking industry.

## Federal Motor Carrier Safety Administration (FMCSA)



**The Federal Motor Carrier Safety Administration (FMCSA)** is a government agency in the US Department of Transportation, with the primary objective of reducing the number of 'crashes, injuries and fatalities involving large trucks and buses'.<sup>61</sup> FMCSA addresses safe performance standards and enforceable standards through developing and enforcing regulations, to promote safety and efficiency in road transport. The agency also plays a role in educating carriers, commercial drivers and the general public on road safety. FMCSA has adopted a collaborative approach to addressing road transport safety, working with a range of stakeholders, including other government bodies, local enforcement and industry bodies.

FMCSA's regulation of compliance with enforceable standards is guided by its Compliance, Safety, Accountability (CSA) initiative. The initiative was established in 2010 to guide FMCSA's prioritisation of carrier safety interventions, which include warning letters, offsite investigations, focused onsite investigations, and comprehensive onsite investigations.<sup>62</sup> The CSA uses a Safety Measurement System (SMS) to identify carriers whose behaviour warranted an intervention to address potential safety concerns, with the objective being to address a specific behaviour so that further interventions were not required.<sup>63</sup>

<sup>59</sup> 'About AAMVA', *American Association of Motor Vehicle Administrators (AAMVA)*, 2019 <https://www.aamva.org/about-aamva/>.

<sup>60</sup> 'What we do' *American Trucking Association*, 2019. [https://www.trucking.org/What\\_We\\_Do.aspx](https://www.trucking.org/What_We_Do.aspx)

<sup>61</sup> 'Our Mission', *Federal Motor Carrier Safety Administration (FMCSA)*, 2016, <https://www.fmcsa.dot.gov/mission>.

<sup>62</sup> Paul E. Green and Daniel Blower, *Evaluation of the CSA 2010 Operational Model Test*, *The University of Michigan Transportation Research Institute* (University of Michigan Transportation Research Institute, 2011).

<sup>63</sup> Ibid.

CSA scores are based on seven Behavior Analysis and Safety Improvement Categories (BASICs):

- Unsafe driving,
- Crash indicator
- Hours of service compliance
- Vehicle maintenance
- Controlled substances/alcohol
- Hazardous materials compliance
- Driver fitness.

An intervention was triggered when a carrier exceeded one of the BASIC thresholds. A 2011 review of the CSA initiative by the University of Michigan Transportation Research Institute indicated that the most successful FMCSA intervention was a warning letter, without being followed by other interventions. However, the review notes that interventions comprised solely of a warning letter tended to be used for carriers with milder violations that were easier to resolve.

In February 2014, a report by the US Governmental Accountability Office (GAO) identified issues with the CSA initiative's SMS methodology and noted that the resulting scores were not reliable for comparing the safety and compliance of different carriers. The FMSCA defended the SMS methodology and failed to implement recommendations from this report, as was directed by a bill passed by the House of Representatives.

Consequently, in late 2015, bipartisan bills were passed by the Senate and House of Representatives for FMCSA to remove the CSA BASIC scores from public realm.<sup>64</sup> This was followed by the *Fixing America's Surface Transportation (FAST) Act*, which was a compromise bill that became law in December 2015 and required an analysis and overhaul of the CSA by an independent organisation.<sup>65</sup> The 2017 report *Improving Motor Carrier Safety Measurement* concluded that the CSA's SMS system 'is structured in a reasonable way, and its method of identifying motor carriers for alert status is defensible', but recommended that 'a more statistically principled approach' be adopted.<sup>66</sup> Therefore, the report recommended that FMCSA develop an item response theory (IRT) model to replace the SMS model, to enhance the transparency, accuracy and adaptability of the system. FMCSA's anticipated timeline for developing an IRT model identified that full-scale modelling would take place in early 2019, followed by an evaluation and implementation in mid-late 2019.<sup>67</sup>

<sup>64</sup> Roman Galas and Christopher Lucca, 'The CSA Program Gets a Fast Fix: A Review of the 2015 Fast Act', *Journal of Transportation Law, Logistics, and Policy* 83, no. 2 (2016).

<sup>65</sup> Ibid.

<sup>66</sup> The National Academies of Sciences, Engineering, and Medicine, *Improving Motor Carrier Safety Measurement* (Washington D.C.: The National Academies Press, 2019).

<sup>67</sup> 'Improving Motor Carrier Safety Measurement', FMCSA, 2018, <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/safety/395136/delorenzo-improving-motor-carrier-safety-measurement-final-508c.pdf>

## National Highway Traffic Safety Administration (NHTSA)



**The National Highway Traffic Safety Administration (NHTSA)** is an agency in the United States Department of Transportation, which seeks to reduce fatalities, injuries and costs associated with crashes, through undertaking research, education, and enforcement.

NHTSA address safe performance standards in road safety broadly, and has two research offices; the Office of Vehicle Safety Research and the Office of Behavioral Safety Research.<sup>68</sup> However, it does not identify commercial road transport or labour standards within its road safety focus, focusing more broadly on reducing crashes, fatalities and injuries, and understanding road user behaviour to deter unsafe behaviours.<sup>69</sup>

## National Institute for Occupational Safety and Health (NIOSH)



**The National Institute for Occupational Safety and Health (NIOSH)** is a federal government agency, which forms part of the Centers for Disease Control and Prevention (CDC) within the US Department of Health and Human Services. NIOSH plays a role in addressing safe performance standards through their research. The NIOSH has conducted research into work-related health and safety across different occupations, including long-haul truck driving. The NIOSH conducted a national survey of long-haul truck drivers in 2010, which was driven by the absence of existing data on occupational health and safety for long-haul truck drivers. This research revealed that 38% of surveyed drivers felt that the training received at the beginning of their career was inadequate and 73% thought that their delivery deadlines were unrealistically tight.<sup>70</sup>

<sup>68</sup> 'Research and Data', *National Highway Traffic Safety Administration*, 2019, <https://www.nhtsa.gov/research-data>

<sup>69</sup> ibid

<sup>70</sup> 'Long-Haul Truck Drivers', *National Institute for Occupational Safety and Health (NIOSH)*, 2018, <https://www.cdc.gov/niosh/topics/truck/safety.html>.

## New Zealand

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>New Zealand Transport Agency (NZTA)</b> <i>Government agency</i>	✓	✓		✓	
<b>Road Transport Forum (RTF)</b> <i>Industry association</i>	✓			✓	
<b>National Road Carriers (NRC)</b> <i>Industry association</i>	✓				
<b>New Zealand Trucking Association</b> <i>Industry association</i>	✓				
<b>Road Transport Association New Zealand (RTANZ)</b> <i>Industry association</i>				✓	

## New Zealand Transport Agency (NZTA)



The New Zealand Transport Agency (NZTA) is a Crown agency, guided by the key objective of contributing to 'an effective, efficient and safe land transport system in the public interest'.<sup>71</sup> The agency is funded by the Crown, the National Land Transport Fund, and revenue from fees and other charges. NZTA addresses safe performance standards through the promotion of road safety and examines enforceable standards through the regulation of commercial transport operators. Other functions of the agency relate to road infrastructure and driver licensing, which are not within the scope of this research. NZTA previously regulated commercial transport operators' safety and compliance through the Operator Rating System (ORS), which involves the allocation of a rating based on safety-related data collected over 24 months. These scores were used to inform the agency's prioritisation of investigations. This approach to targeting interventions based on safety risk is similar to the FMSCA's CSA initiative in the US and the DVSA's OCRS system in the UK. However, the agency acknowledged that the ORS was not functioning as intended and that the scores should not be considered an accurate measure of an operator's safety or compliance. In October 2018, NZTA announced an external review of NZTA's regulatory compliance functions, including the ORS.<sup>72</sup> Whilst a report on NZTA's regulatory functions was released in February 2019, it did not include a review of the ORS and it appears that the review of ORS is ongoing.<sup>73</sup>

## Road Transport Forum (RTF)



The Road Transport Forum (RTF) is a national body that works to promote the interests of the road transport industry and its members. The RTF is comprised of three industry associations **National Road Carriers (NRC)**, **New Zealand Trucking Association** and **Road Transport Association New Zealand (RTANZ)**. These associations are explored further below.

The RTF addresses enforceable standards, through working with government departments responsible for policy and enforcement, to promote the development of the road transport industry. The RTF also addresses safe planning standards through advocacy on road safety solutions. For example, the RTF's website states that it began advocating to the New Zealand Government to adopt roadside drug testing in 2004, which was eventually adopted in 2010.<sup>74</sup> However, the information available is very limited and RTF does not appear to play a role in measuring the impact of such reforms on safety outcomes for commercial drivers.

<sup>71</sup> NZ Transport Agency, *NZ Transport Agency Amended Statement Of Intent 2018–22* (Wellington: NZ Transport Agency, 2019).

<sup>72</sup> 'Operator Rating System', *New Zealand Transport Agency (NZTA)*, 2019, <https://www.nzta.govt.nz/commercial-driving/operator-rating-system-ors/>.

<sup>73</sup> 'Regulatory compliance review', NZTA, 2019, <https://www.nzta.govt.nz/regulatory/regulatory-compliance-review/>.

<sup>74</sup> 'Road Safety', *Road Transport Forum NZ*, 2019, <https://www.rtnz.co.nz/new-zealand-road-transport/road-safety/>.

## National Road Carriers (NRC)



**National Road Carriers (NRC)** provides professional support to the road transport industry, including advice on health, safety, workplace relations and compliance.<sup>75</sup>

## New Zealand Trucking Association



**The New Zealand Trucking Association** supports road transport businesses and promotes driver safety and wellbeing through its Healthy Truck Driver Program.<sup>76</sup> The Healthy Truck Driver program aims to prevent accidents by improving truck drivers' health and wellbeing. The program focuses on fatigue and its role in accidents and driver health, and the common causes.<sup>77</sup>

## Road Transport Association New Zealand (RTANZ)



**The Road Transport Association New Zealand (RTANZ)** represents a range of road transport participants, from owner-drivers to fleet operators. RTANZ provides education and training, and advice to members on regulations, compliance and business management.<sup>78</sup>

<sup>75</sup> 'Who we are', *National Road Carriers*, 2019, [https://www.natroad.co.nz/about\\_nrc/who\\_we\\_are](https://www.natroad.co.nz/about_nrc/who_we_are).

<sup>76</sup> 'About the program', *Safety MAN Road Safety Truck*, 2017, <https://www.roadsafetytruck.co.nz/healthy-truck-driver.html>.

<sup>77</sup> ibid

<sup>78</sup> 'Driving the road to success', *Road Transport Association New Zealand*, 2019, <https://www.rtanz.co.nz/why-join>.

## Canada

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Alberta Motor Transport Association (AMTA)</b> <i>Industry association</i>	✓				
<b>Canadian Council of Motor Transport Administrators (CCMTA)</b> <i>National forum</i>		✓		✓	
<b>Office of the British Columbia Container Trucking Commissioner</b> <i>State institution</i>	✓		✓	✓	
<b>Transport Canada's Motor Carrier Division</b> <i>Independent statutory body</i>	✓			✓	

### Alberta Motor Transport Association (AMTA)



**Alberta Motor Transport Association (AMTA)** is an industry association in Canada which works to improve safety for commercial drivers and foster development of a healthy road transport industry.<sup>79</sup> AMTA addresses safe performance standards through working to create and promote high safety standards for the road transport industry. The association also offers work health and safety training to assist companies in developing health and safety management systems. Further, AMTA provides a certification process for individuals to become a Certified Transportation Safety Professional (CTSP), which acknowledges their competency in developing and managing safety and compliance programs for a carrier.<sup>80</sup>

### Canadian Council of Motor Transport Administrators (CCMTA)



**The Canadian Council of Motor Transport Administrators (CCMTA)** is a national forum, which functions to improve safety and efficiency of Canada's roads. CCMTA is comprised of representatives from Canada's federal, provincial, territorial and governments. The forum is funded by its members and the revenue generated by the

<sup>79</sup> 'What we do', Alberta Motor Transport Association, 2019, <https://amta.ca/what-we-do/>

<sup>80</sup> 'Certified Transportation Safety Professional (CTSP)', Alberta Motor Transport Association, 2019, <https://amta.ca/what-we-do/safety-training/ctsp/>

provision of services.<sup>81</sup> CCMTA addresses safe performance standards, planning standards and enforceable standards, as it is primarily concerned with the administration and regulation of highway safety and motor vehicles. CCMTA is responsible for overseeing and updating Canada's Road Safety Strategy 2025. The strategy's vision 'Towards Zero: The safest roads in the world' is based on the Vision Zero approach adopted by Sweden in 1997, which establishes an aspirational target of zero deaths on the road and has been successful in reducing Sweden's traffic-related fatality rates to amongst the lowest in the world.<sup>82</sup> Further, CCMTA has created an online inventory of best practice approaches to improving road safety outcomes, which includes education programs, electronic logging devices, strategies for improving safety culture in the industry, and strategies for promoting the health of commercial drivers.<sup>83</sup>

## Office of the British Columbia Container Trucking Commissioner



The Office of the British Columbia Container Trucking Commissioner was established under the province's 2014 *Container Trucking Act*. The *Container Trucking Act* in conjunction with *Container Trucking Legislation* established minimum rates and fuel charges below which licensees that service the Port of Vancouver cannot pay. Licensees must keep records for each trucker employed or retained to provide container trucking services and are subject to audit and investigation. The Commissioner operates independently from the government and increases accountability within and accessibility to the drayage sector by enforcing compliance with the *Container Trucking Act*, issuing Container Trucking Services licences, and reviewing rates, regulations and policy based on consultations with industry.<sup>84</sup>

## Transport Canada's Motor Carrier Division



The Motor Carrier Division is division of Transport Canada, a department within the Government of Canada, which is responsible for improving road safety outcomes through reducing fatalities and injuries related to commercial truck and bus crashes. The Motor Carrier Division addresses safe performance standards and enforceable standards through working with industry bodies and provincial and territorial governments on establishing safety regulations for the operation of commercial vehicles. The Motor Carrier Division undertakes research on motor carrier safety and seeks to improve the effectiveness of the National Safety Code, which establishes minimum standards to promote safety for commercial drivers in Canada. Further, the Motor Carrier Division oversees the *Motor Vehicle Transport Act* and two of its federal regulations: Motor Carrier Safety Fitness Certificate Regulations and Commercial Vehicle Drivers House of Service Regulations. However, the *Motor Vehicle Transport Act* only applies to federally-regulated motor carriers, which transport goods or passengers across an international or provincial border. Commercial trucks and buses that do not cross borders are regulated by the relevant provincial or territorial legislation.<sup>85</sup>

<sup>81</sup> 'Frequently Asked Questions', Canadian Council of Motor Transport Administrators (CCMTA), 2018, <https://www.ccmta.ca/en/frequently-asked-questions>.

<sup>82</sup> 'Strategy', CCMTA, 2016, <https://roadsafetystrategy.ca/en/strategy>.

<sup>83</sup> 'Road Safety Measures', CCMTA, 2016, <http://www.roadsafetystrategy.ca/en/road-safety-measures>.

<sup>84</sup> 'Mandate & Overview', Office of the British Columbia Container Trucking Commissioner, 2019 <https://obccctc.ca/about-the-obccctc/mandate-overview/>

<sup>85</sup> 'Motor Carriers, Commercial Vehicles and Drivers', Government of Canada, 2019, <https://www.tc.gc.ca/eng/motorvehiclesafety/roadsafety-motor-carriers-commercial-vehicles-drivers-1312.htm>.

## Republic Of Korea (South Korea)

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Ministry of Land, Infrastructure and Transport (MOLIT) Government division</b>	✓				
<b>“Safe Rates” model Legislative instruments</b>	✓	✓	✓	✓	✓

### Ministry of Land, Infrastructure and Transport (MOLIT)

The Ministry of Land, Infrastructure and Transport is a division of the Government of South Korea, which seeks to improve safety, convenience and efficiency in South Korea's transport and logistics systems.<sup>86</sup> The Ministry's road policies focus on improving the connectivity and efficiency of arterial road networks and reducing risks of traffic accidents through improving roads and risk management technologies.<sup>87</sup> The Ministry seeks to improve safety through road infrastructure and does not address the impact of working conditions in commercial road transport on safety outcomes.

### “Safe Rates” Model

The “Safe Rates” model was adopted by the Government of South Korea in June 2019. It will employ a combination of legislative and executive instruments to establish and enforce minimum rates of pay for all truck drivers, regardless of their employment status. The model will first be trialled in South Korea's container and concrete transportation sectors, based on minimum rates determined by the Road Safety Freight Rates Committee (RSRC). South Korea's “safe rates” model will establish minimum rates of pay at two levels within the supply chain. Firstly, it will establish “Road Safety Contract Rates” to be paid by trucking transport services intermediaries to drivers. Secondly, it will establish “Road Safety Transport Rates” to be paid by consignor/consignee clients to both the trucking transport services and truck drivers. The legislative component of the “Safe Rates” model will enable truck drivers to exercise their right to compensation in cases of underpayment. Further, South Korea's “safe rates” model will also regulate transport sector contracts, with contracts that do not meet the minimum safe rate being declared void. The system will be supported by the imposition of criminal penalties for businesses that seek to violate the minimum safe rates through bribery.<sup>88</sup>

<sup>86</sup> ‘Vision and Mission’, Ministry of Land, Infrastructure and Transport, 2019, [http://www.molit.go.kr/english/USR/WPGE0201/m\\_28271/LST.jsp](http://www.molit.go.kr/english/USR/WPGE0201/m_28271/LST.jsp)

<sup>87</sup> ‘Policy Issues – Road’, Ministry of Land, Infrastructure and Transport, 2019, [http://www.molit.go.kr/english/USR/WPGE0201/m\\_36862/DTL.jsp](http://www.molit.go.kr/english/USR/WPGE0201/m_36862/DTL.jsp)

<sup>88</sup> Nossar, I and Amorenso, L (2019), Working paper ‘Delivering Safe Rates in Today's Transport Supply Chains’.

## Japan

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
<b>Japan Trucking Association (JTA) Industry association</b>	✓				

### Japan Trucking Association (JTA)



The Japan Trucking Association (JTA) is an industry association, which seeks to promote the development of the trucking industry and improve conditions for its members. JTA addresses safe performance standards by establishing standards for the trucking industry and promoting compliance.<sup>89</sup> The association seeks to reduce work-related injury in the road transport sector through coordinating safety-related seminars and distributing educational materials, such as pamphlets and posters. JTA's English-language information document, titled 'Trucking: Today and Tomorrow in Japan' (2008), states that the association assesses safety in the industry through evaluating trucking companies' safety records.<sup>90</sup> Through making these records publicly available, JTA seeks to highlight the need to improve safety and provide data to inform customer decisions. However, there are no recent updates on this initiative and JTA does not provide information on its methodology for assessing safety based on a company's record. Further, it is unclear whether JTA intends to conduct an evaluation of this initiative's impact on safety in the road transport industry.

<sup>89</sup> 'Our Role and Mission', Japan Trucking Association (JTA), 2011, [http://www.jta.or.jp/english/jta\\_e.pdf](http://www.jta.or.jp/english/jta_e.pdf)

<sup>90</sup> 'Trucking – Today and Tomorrow in Japan', JTA, 2008, <http://www.jta.or.jp/english/truckingtodayandtomorrow.pdf>.

## South Africa

	Address safe performance standards	Address planning standards	Review appropriate payment regimes	Examine enforceable standards	Undertake dispute resolution
Road Transport Management System (RTMS) <i>Business driven standard</i>	✓	✓			

### Road Transport Management System (RTMS)



The Road Transport Management System (RTMS) is a voluntary self-regulation scheme, which is led by the road transport industry and supported by the government.<sup>91</sup> The RTMS addresses safe performance standards through its certification process, which requires operators to implement a structured management system, which embeds consideration of road safety, compliance and risk management in a company's operations. To become RTMS certified, a company must also demonstrate compliance with the RTMS National Standard (SANS 1395-1). This standard establishes requirements relating to matters such as road safety, driver health and wellbeing, training, and internal auditing.<sup>92</sup> The initiative seeks to enhance health and safety outcomes and skills development within the road transport industry. Research into the RTMS identified the key benefits of certification as being improved safety outcomes and increased operational efficiency, whilst the barriers to RTMS certification were lack of awareness of the system or the requirements for certification.<sup>93</sup>

<sup>91</sup> 'What is RTMS?', *Road Transport Management System (RTMS)*, 2019, <http://www.rtms-sa.org/whatisrtms>.

<sup>92</sup> 'RTMS Standards', *RTMS*, 2019, <http://www.rtms-sa.org/tmsstandards>.

<sup>93</sup> Abdool Kamdar et al., 'Operational Improvement Outcomes Through Voluntary Compliance in Road Transport Operations', *Proceedings of the International Conference on Industrial Engineering and Operations Management* (2018).

# Findings

## National institutions and frameworks

There are very few institutions or industry bodies that range across the five functions being considered in this report. ‘Addressing safe performance standards’ is the most commonly identifiable function both institutionally and geographically and ‘addressing planning standards’ is the most difficult to identify.<sup>94</sup> The nature of the institution also shapes the area within which activities are undertaken and the capacity to perform across the five functions. State regulatory bodies are the most likely to combine functions and are more likely to include safety standards, payment regimes and enforcement aspects. International bodies are most likely to be engaged in activities regarding safe performance standards and the examination of enforceable standards rather than reviewing appropriate payment regimes, sectoral planning or dispute resolution, which is likely to reflect jurisdictional limitations. Industry associations are active around safe performance standards and are often providers of training to transport companies and drivers, and unions generally focus on safety, payment regimes and enforcement. Although more of a regulatory regime than a discrete institution, the approach that encompasses the broadest range of functions examined in this paper, is the South Korean ‘Safe Rates Model’. Like the regulatory framework established under the now repealed Australian federal *Road Safety Remuneration Act (RSRA) 2012*, South Korea’s framework recognises the established links between driver pay and WHS.

## International Transport Standards: Opportunities and Barriers

In September 2019, the International Labour Organisation (ILO) convened a ‘Meeting of experts to adopt guidelines on the promotion of decent work and road safety in the transport sector’.<sup>95</sup> These draft guidelines explicitly acknowledge the link between structure of the road transport sector (specifically intense competition and supply chain dynamics) and the adoption of ‘riskier and unsafe driving practices’ by transport workers.<sup>96</sup> The final section of the guidelines suggests actions for the implementation and enforcement of decent work in road transport. In particular, the benefits of social dialogue and tripartism are outlined and it is recommended that ‘Governments, employers and workers should use social dialogue to develop innovative approaches’ to engage in regulatory innovation while recognising the value of existing collective bargaining arrangements.<sup>97</sup>

The ‘Meeting of experts’ and the draft guidelines (if adopted) are an important contribution to the framing of decent work in road transport internationally, providing a normative signal to the road transport community that may act as a reference point for regulatory developments in various jurisdictions. Additionally, precedent with regard to the international regulation of transport supply chains through the ILO has been set with the ratification of the Maritime Labour Convention 2006 by 94 member countries.<sup>98</sup>

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<sup>94</sup> This might have been a methodological issue given the broad framing of this criteria.

<sup>95</sup> ‘Meeting of Experts to Adopt Guidelines on the Promotion of Decent Work and Road Safety in the Transport Sector’ *International Labour Organisation*, 2019, [https://www.ilo.org/sector/activities/sectoral-meetings/WCMS\\_677774/lang--en/index.htm](https://www.ilo.org/sector/activities/sectoral-meetings/WCMS_677774/lang--en/index.htm)

<sup>96</sup> Draft guidelines on the promotion of decent work and road safety in the transport sector, Meeting of Experts to Adopt Guidelines on the Promotion of Decent Work and Road Safety in the Transport Sector (Geneva, 23–27 September 2019), International Labour Office, Sectoral Policies Department, Geneva, ILO, 2019 p6.

<sup>97</sup> Draft guidelines on the promotion of decent work and road safety in the transport sector, Meeting of Experts to Adopt Guidelines on the Promotion of Decent Work and Road Safety in the Transport Sector (Geneva, 23–27 September 2019), International Labour Office, Sectoral Policies Department, Geneva, ILO, 2019 p. 29

<sup>98</sup> ‘Maritime Centenary Challenge: reaching 100 ratifications of the MLC, 2006’, *International Labour Organisation*, 2019, [https://www.ilo.org/global/standards/maritime-labour-convention/WCMS\\_664151/lang--en/index.htm](https://www.ilo.org/global/standards/maritime-labour-convention/WCMS_664151/lang--en/index.htm)

However, there are limitations associated with supra-national attempts to set safety and labour standards. Specifically, while ILO conventions require ratification by member countries, enforcement is problematic and in recent years Australia has been resistant to claims of non-compliance.<sup>99</sup>

## Regulation and Regulatory Innovation

The overview of institutions provided above reveals that in some countries there is a complex collection of voluntary, market and formal regulatory frameworks that address safe performance standards and planning standards, review payment regimes, examine enforceable standards and undertake dispute resolution in the transport and logistic sector. This complexity can be an issue. In a study into the regulation of WHS of Australian Road freight transport drivers, the number, method and jurisdiction of WHS regulations were found to be complicated but necessary for the creation of safer workplaces for truck drivers. Despite the volume of regulation, regulatory gaps exist – and that in the absence of a body like the RSRT, the safety standards, frameworks and enforcement agencies do not have the scope to ‘eliminate existing incentives for overly tight scheduling, unpaid work, and rates that are below cost recovery for owner drivers.<sup>100</sup> The same study noted that drivers tend to bear the costs of enforcement actions and that targeting individual drivers does not take into account the cost structures of the sector.

While not providing the comprehensive regulatory framework discussed above, examples of regulatory innovation in sub-sectors of the transport and logistics sector have evolved to deal with safety issues, the determination of appropriate payment regimes and enforcement mechanisms in the transport and logistics sector. Notably, they range over a variety of jurisdictions that utilise different regulatory mechanisms suggesting stakeholders have pragmatically assessed political opportunity structures to determine whether alternative options for action (at a local or state level) may exist even when national regulations or political conditions are unfavourable. For example, passage of Bill AB 5 in California<sup>101</sup> (that was ostensibly targeting gig-work) has implications for independent contracting in transport. In August 2018, the New York City Council voted to limit the operations of ride-sharing platforms and impose minimum rates through the Taxi and Limousine Commission.<sup>102</sup> In Australia, the Victorian state government has made amendments to the *Owner Drivers and Forestry Contractors Act 2005* to include gig economy couriers giving these workers access to mediation through the Victorian Small Business Commission.

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<sup>99</sup> Stephen Long. (2017). 'Have the right to strike laws gone too far', *ABC Online*, 21 March  
<https://www.abc.net.au/news/2017-03-21/have-the-right-to-strike-laws-gone-too-far/8370980>

<sup>100</sup> Louise Thorthwaite and Sharron O'Neill (2017). 'Regulating the Work Health and Safety of Australian Road Transport Freight Drivers: Summary Report to the Transport, Education, Audit, Compliance, Health Organisation (TEACHO) Ltd. January'. P 16

<sup>101</sup> This Act puts the burden of proof on employers to show:

- (A) that the worker is free from the control and direction of the hirer in connection with the performance of the work, both under the contract for the performance of such work
- (B) that the worker performs work that is outside the usual course of the hiring entity's business
- (C) that the worker is customarily engaged in an independently established trade, occupation, or business of the same nature as the work performed for the hiring entity'

Canon, G (2019) California's controversial labor bill has passed the Senate. Experts forecast more worker rights, higher prices for services', **USA TODAY**, Sept. 11,  
<https://www.usatoday.com/story/news/politics/2019/09/10/what-californias-ab-5-means-apps-like-uber-lyft/2278936001/>

<sup>102</sup> Emmanuel Josserand and Sarah Kaine. (2018). 'People power is finally making the gig economy fairer', August 10, *The Conversation*, <https://theconversation.com/people-power-is-finally-making-the-gig-economy-fairer-101309>

## Observations

- 1** The most comprehensive approaches to addressing safe performance standards, addressing planning standards, reviewing appropriate payment regimes, examining enforceable standards and undertaking dispute resolution are those based on a determined legislative program as seen in the *RSRA 2012* and South Korean 'Safe Rates' Model.
- 2** Jurisdictionally specific regulations suggest a possible future in which regulatory layering creates a bricolage framework that ranges across the five functions. Aspects of this are already evident in Australia through the Victorian example (discussed above) and Chapter 6 of the *NSW Industrial Relations Act 1996*. However, extant research suggests a cautious approach to ensure that regulatory gaps are not overlooked.
- 3** Regulation and enforcement efforts that focus solely on individual drivers are of questionable efficacy given the cost structures and commercial relationships in transport supply chains.
- 4** There has been progress in the development of international standards addressing safety, training and remuneration in the road transport sector although implementation and enforcement issues are significant.

Approaches to addressing issues associated with supply chain regulation and auditing from outside the transport sector are considered in the following section.

Section Two:

# Supply Chain Governance Standards, Auditing and Remediation



# Supply Chain Governance Standards, Auditing and Remediation

While Section 1 provided an overview of transport specific initiatives, this section provides a more general sample of industry based, national and international supply chain governance initiatives that have been established to undertake audits of supply chains and contract networks. Apart from the Maritime Labour Convention, these examples are not transport specific however, it is intended that the information provided in this section gives an indication of the variety of supply chain governance approaches that may have aspects relevant to the development of alternative governance approaches in road transport and logistics. These initiatives were identified through academic literature<sup>103</sup> and through work on research projects requiring similar information. The initiatives were considered in light of their performance relative to the following functions in the auditing of supply chains (summarised in table form):

	Establishes industry standards
	Provides certification
	Includes worker engagement
	Includes process for remediation

The supply chain governance initiatives are classified using the standards types proposed by Fransen et al 2019<sup>104</sup>, these classifications are:

- International Organisation (IO)
- NGO
- Business Driven
- Multi-stakeholder
- Producer-country focused
- IO Driven partnership
- Meta-standard

Additionally, an explanation of each of the initiatives is provided grouped by international or industry, followed by a more general discussion and observations.

<sup>103</sup> See Donaghey, J., Reinecke, J., Niforou, C. & Lawson, B. (2014). From employment relations to consumption relations: Balancing labor governance in global supply chains. *Human Resource Management*, 53(2), 229-252. and O'Rourke, D. (2003). Outsourcing regulation: Analyzing Nongovernmental systems of labor standards and monitoring. *Policy Studies Journal*, 31(1), 1-29.

<sup>104</sup> Luc Fransen, Ans Kolk and Miguel Rivera-Santos, 'The multiplicity of international corporate social responsibility standards: Implications for global value chain governance', *Multinational Business Review* (2019).

	Establishes industry standards	Provides certification	Includes worker engagement	Includes process for remediation
<b>International Initiatives</b>				
<b>Accord on Fire and Building Safety in Bangladesh</b> <i>Producer-country focused standard</i>	✓			✓
<b>Action, Collaboration, Transformation (ACT)</b> <i>NGO standard</i>	✓		✓	✓
<b>Common Code for the Coffee Community (4C)</b> <i>Meta-standards</i>	✓	✓		✓
<b>Ethical Trading Initiative (ETI)</b> <i>Multi-stakeholder standards</i>	✓			✓
<b>Fairtrade International</b> <i>Multi-stakeholder standards</i>	✓	✓		
<b>Fair Labor Association</b> <i>Multi-stakeholder standards</i>	✓	✓	✓	✓
<b>Fair Wear Foundation (FWF)</b> <i>Multi-stakeholder initiative</i>	✓		✓	✓
<b>GLOBALG.A.P.</b> <i>Business driven standard</i>	✓	✓	✓	✓
<b>Maritime Labour Convention (MLC)</b> <i>IO standard</i>	✓	✓	✓	✓
<b>SA8000</b> <i>Multi-stakeholder standards</i>	✓	✓	✓	✓
<b>UTZ</b> <i>Multi-stakeholder standards</i>	✓	✓	✓	✓

	Establishes industry standards	Provides certification	Includes worker engagement	Includes process for remediation
<b>Worker Rights Consortium (WRC) NGO standard</b>			✓	✓
<b>Worldwide Responsible Accredited Production (WRAP) Business driven standard</b>	✓	✓		✓
<b>Industry Initiatives</b>				
<b>Cleaning Accountability Framework (CAF) Multi-stakeholder standard</b>	✓	✓	✓	✓
<b>Fair Farms</b> <i>Business driven standard</i>		✓	✓	✓
<b>Fair Food Program</b> <i>Multi-stakeholder standard</i>	✓	✓	✓	✓
<b>Milk with Dignity</b> <i>Multi-stakeholder standard</i>	✓		✓	✓

## International Initiatives

### Accord on Fire and Building Safety in Bangladesh



The **Accord on Fire and Building Safety in Bangladesh** is a legally-binding agreement signed in 2013 between global retailers, IndustriALL Global Union, UNI Global Union, and affiliated unions in Bangladesh.<sup>105</sup> The Accord established a commitment towards improving safety and health for workers in Bangladesh's textile industry following the collapse of the Rana Plaza, which killed 1,113 workers and injured thousands. Companies that have signed the agreement disclose their supplier factories in Bangladesh and the factories are then subject to inspections to monitor conditions and verify remediation.<sup>106</sup> Further, Corrective Action Plans (CAP) are developed by signatory companies and factories to establish the remedial actions that must be undertaken by the factory within a defined timeframe, with implementation being assessed through follow-up inspections conducted by Accord engineers.<sup>107</sup>

### Action, Collaboration, Transformation (ACT)



**Action, Collaboration, Transformation (ACT)** is a joint initiative and agreement between global brands and IndustriALL, which seeks to ensure that workers in the garment, textile and footwear sectors are paid a living wage.<sup>108</sup> ACT acknowledges the impact that global retailers have on the ability of their suppliers to pay workers a living wage. ACT works to address this issue through industry-based collective bargaining agreements that address wage structures and employment conditions and with enforcement mechanisms to ensure the agreed wages are being paid. Further, the Memorandum of Understanding is signed by ACT members that have committed to ensuring that the prices they pay to suppliers enable the payment of a living wage. However, ACT acknowledges the challenge of ensuring that increased wages for garment, textile and footwear workers are reflected in the increased prices paid by global brands to suppliers. Additionally, ACT indicates that governments, trade unions, employers and workers are responsible for monitoring of implementation of these collective agreements. It is noted that ACT does not establish enforcement mechanisms.

### Common Code for the Coffee Community (4C)



The **Common Code for the Coffee Community (4C)** is an association that provides certification in the coffee industry, with the aim to improve the social, economic and environmental conditions. The 4C Code of Conduct is comprised of 27 social, economic and environmental principles for the sustainable production of green coffee beans, based on international guidelines and conventions.<sup>109</sup> It also identifies 10 unacceptable practices, which an applicant must address before applying for certification. 4C certification is available to any production facility or related process, provided that they

<sup>105</sup> 'About', *Accord on Fire and Building Safety in Bangladesh*, 2018, <https://bangladeshaccord.org/about>.

<sup>106</sup> 'Status Inspection Program', *Accord on Fire and Building Safety in Bangladesh*, 2018, <https://bangladeshaccord.org/uploads/2019/09/12/update-inspections-program>.

<sup>107</sup> 'Key information to help you navigate the Factories page on the Accord website', *Accord on Fire and Building Safety in Bangladesh*, 2018, <https://bangladeshaccord.org/2018/08/22/key-information-factories-page/>.

<sup>108</sup> 'What is ACT?', *Action, Collaboration, Transformation*, 2019, <https://actonlivingwages.com/fact-sheet/#qanda>.

<sup>109</sup> 'The 4C Certification System', 4C Services, <https://www.4c-services.org/about/objectives/>.

meet the minimum coffee production/supply requirement and have the capacity to designate an individual or group to implement the 4C Code of Conduct.

To become a certified 4C Unit, the applicant must be compliant with the 4C Code of Conduct and implement an Internal Management System to ensure that requirements are met. As part of the certification process, an independent audit is undertaken by a third-party certification body, with final approval to be determined by 4C before the applicant becomes a 4C Unit.<sup>110</sup> To maintain 4C Certification, a 4C Unit is required to submit an Annual Update and an Improvement Plan to report on implementation of agricultural and management practices identified in the Code of Conduct. Further, the volume of 4C Compliant Coffee that a 4C unit trades annually must be reported through the 4C portal. It is noted that the 4C has established procedures for processing formal complaints regarding 4C's services or decisions made in the certification process.<sup>111</sup>

## Ethical Trading Initiative (ETI)



**Ethical Trading Initiative (ETI)** is an alliance of companies, unions and non-government organisations (NGOs), which seeks to promote the rights of workers and to address issues of exploitation and discrimination. The ETI advocates for ethical trade, which urges retailers and brands to acknowledge their responsibility for the working conditions experienced by the people who make the products they sell, who are often based in poor countries where labour standards and protection of workers' rights are inadequate or not upheld.<sup>112</sup>

The ETI seeks to improve working conditions through the ETI Base Code, which establishes a set of international standards for labour practices based on the Conventions of the ILO. To become an ETI member, a company must adopt the ETI Base Code and the ETI's Principles of Implementation. These Principles require members to demonstrate their commitment to engaging in ethical trade, promote ongoing improvements in working conditions, work with suppliers to improve their employee's working conditions, and remain transparent in reporting their business activities.<sup>113</sup>

The ETI measures the progress of member companies based on annual reports, which members are required to submit to the ETI Board.

ETI's website identifies that the following matters must be addressed in the annual report:

- Team or individual leading the company's ethical strategy
- Expenditure on ethical trade activities
- Training provided for staff and suppliers
- Progress towards integrating ethical trade into their business practices
- Processes for assessing their supplier's working conditions
- Changes to workers' conditions and processes for ensuring that suppliers make requested changes to improve working conditions

The ETI Board reviews the annual reports submitted by member companies and the Secretariat provides feedback, which acknowledges progress and identifies areas where further action towards ethical trade practices is required. A company's ETI membership will be terminated if it fails to make sufficient progress or meet its membership obligations.

<sup>110</sup> 'How to obtain a 4C Certificate', 4C Services, <https://www.4c-services.org/process/registration-for-4c-certification-system-2/>.

<sup>111</sup> 'Procedure of complaints and appeals', 4C Services, <https://www.4c-services.org/process/procedure-of-complaints-and-appeals/>.

<sup>112</sup> 'About ETI', Ethical Trading Initiative (ETI), 2019, <https://www.ethicaltrade.org/about-eti>.

<sup>113</sup> 'ETI corporate membership obligations', ETI, 2019, <https://www.ethicaltrade.org/join-eti/what-members-sign-to>.

## Fairtrade International



**Fairtrade International** is an organisation that seeks to improve working conditions and economic outcomes for farmers and workers in developing countries. The Fairtrade Standards establish the requirements to be met by producers and businesses to have their products become Fairtrade certified. The Fairtrade Minimum Price establishes minimum payments for producers that sell their products through Fairtrade, which intends to cover the cost of sustainable production processes and provide a safety net for producers when market prices drop. In addition to this, Fairtrade includes a Fairtrade Premium, which is an additional payment made to farmers and workers to invest in projects of their own choosing, including in their community or their business.<sup>114</sup>

## Fair Labor Association (FLA)



The Fair Labor Association (FLA) represents a collaborative approach between universities, companies, and civil society organizations to protect workers' rights globally. FLA has developed the Sustainable Compliance methodology (SCI), which acknowledges the limitations of conventional audit processes in preventing recurring violations and seeks to identify root causes of issues through understanding daily work practices, rather than practices that are observed on a single audit day.<sup>115</sup> The SCI audit process requires both the company and facility to participate in the remedial process.

## Fair Wear Foundation (FWF)



The Fair Wear Foundation (FWF) is a non-profit organisation that seeks to improve working conditions for garment workers across 11 countries in Asia, Africa and Europe through working collaboratively with factories, brands, unions, NGOs and governments. The FWF has established a Code of Labour Practices, which is comprised of eight standards that are derived from internationally recognised standards.<sup>116</sup> Member companies must be committed to implementing these eight standards and be transparent about complaints made about factories they work with and how they are improving labour conditions along their supply chain.<sup>117</sup>

FWF's key functions include:<sup>118</sup>

- Brand Performance Checks – FWF undertakes annual Brand Performance Checks of member companies to determine how their business practices are impacting working conditions in garment factories. This review measures progress towards implementing the Code of Labour Practices and resolving any issues with suppliers. This information is made publicly available.
- Audits in garment factories – FWF undertakes audits of factories to identify issues and establish an action plan for the brand and factory. This process includes worker interviews, inspection of documents, and review by a health and safety specialist. It is noted that FWF does not provide certification for factories or brands.
- Complaints helplines – FWF provides helplines for garment workers to report violation of their rights or other concerns about their place of work. The FWF

<sup>114</sup> 'Frequently Asked Questions', Fairtrade International, <https://www.fairtrade.net/about/faq>.

<sup>115</sup> 'Our Methodology', Fair Labor Association (FLA), 2012, <https://www.flairlabor.org/our-work/our-methodology>.

<sup>116</sup> 'Labour Standards', Fair Wear Foundations (FWF), 2017, <https://www.fairwear.org/labour-standards/>.

<sup>117</sup> 'Membership', FWF, 2017, <https://www.fairwear.org/about/membership/>.

<sup>118</sup> 'What We Do', FWF, 2017, <https://www.fairwear.org/fair-wear-foundation/what-we-do/>.

undertakes an investigation, which requires collaboration between the brand and supplier to resolve the issue. Complaints made through FWF's helplines are made publicly available online to maintain transparency in the garment industry.

Factory training – the FWF Workplace Education Programme (WEP) includes training for workers and management on labour standards, protection of workers' rights, and processes of remediation. The FWF provides both general and country-specific training modules.

## GLOBALG.A.P.



**GLOBALG.A.P.** is a global organisation that establishes voluntary standards for the certification of agricultural products, with the aim to promote safe and sustainable practices in the agricultural industry. GLOBALG.A.P. Certification covers several aspects of the production process, including workers' health, safety and welfare. A producer must undertake a self-assessment to identify and resolve non-compliances, be subject to an on-site inspection by an approved body and be recognised as compliant in order to receive a GLOBALG.A.P. Integrated Farm Assurance Standard certificate.<sup>119</sup>

## Maritime Labour Convention (MLC)



The Maritime Labour Convention (MLC) is a convention of the International Labour Organisation (ILO) that sets minimum working and living standards for seafarers in areas such as hours of work and rest, payment of wages, accommodation, and WHS. As with other ILPO conventions, it requires individual countries to become signatories after which those countries become responsible for the enforcement. Both flag and port countries are involved in the enforcement of the MLC. Flag states (that is countries in which the ship is registered) issue a MLC certificate to verify that a particular vessel meets minimum MLC requirements, port state (a country in which the vessel docks) control inspectors are entitled to board any vessel in order to verify MLC compliance and may detain the vessel at the port if it does not comply (even if the vessel is not from a MLC flag state).<sup>120</sup>

Like any ILO convention, the MLC relies on signatory states in the area of enforcement. That is, the ILO has no enforcement or inspectorate arm however the ILO maintains that 'governments are sensitive to pleas that they fulfil the obligations they have undertaken in ratifying ILO Conventions. The public pressure brought to bear by use of the ILO procedures has in a number of cases led to changes in law and practice, and thus through them to an improvement of working conditions'.<sup>121</sup>

However, as noted earlier, Australia has been resistant to claims of non-compliance (see footnote 105) and is illustrative that ILO conventions are only effective when supported by state political and institutional systems of enforcement. While notionally the MLC performs all four functions we have been considering, in reality it is entirely dependent on the will of national governments to enforce.

<sup>119</sup> '5 Steps to Get Certified', **GLOBALG.A.P.**, [https://www.globalgap.org/uk\\_en/what-we-do/globalg.a.p.-certification/five-steps-to-get-certified/](https://www.globalgap.org/uk_en/what-we-do/globalg.a.p.-certification/five-steps-to-get-certified/).

<sup>120</sup> 'A Guide to Maritime Labour Convention (MLC), 2006 for Maritime Professionals' *Marine Insight*, 2019, <https://www.marineinsight.com/maritime-law/a-guide-to-maritime-labour-convention-mlc-2006-for-maritime-professionals/>; 'What is the Maritime Labour Convention (MLC)?', *Seafarers Rights International*, 2019, <https://seafarersrights.org/seafarers-subjects/maritime-labour-convention-mlc/>

<sup>121</sup>'ILO Conventions-Enforcement Procedures'. *ILO*, 2011, <https://iloencyclopaedia.org/part-iii-48230/resources-institutional-structural-and-legal/international-governmental-and-non-governmental-safety-and-health/33-international-governmental-and-non-governmental-safety-and-health/ilo-conventions-enforcement-procedures>

## SA8000 Standard



The **SA8000 Standard** is a multi-stakeholder initiative, which was established by Social Accountability International (SAI) as a global certification standard for factories and organisations to demonstrate their commitment to improving the treatment of workers across through working towards social accountability and compliance in their supply chains. The SA8000 Standard addresses nine key areas: child labour, forced or compulsory labour, health and safety, freedom of association and collective bargaining, discrimination, disciplinary practices, working hours, remuneration, and management systems.<sup>122</sup> This is based on international labour standards established by ILO conventions and the Universal Declaration of Human Rights. The standards are regularly revised based on expert and public consultation to ensure ongoing relevance and applicability to emerging challenges and human rights issues.<sup>123</sup> SAI suggests that independent certification schemes based on the SA8000 Standard are essential for companies to improve labour standards globally.<sup>124</sup>

## UTZ



**UTZ** is a certification program that seeks to promote sustainable farming practices. In 2018, UTZ merged with the Rainforest Alliance, which is an international non-profit organisation.<sup>125</sup> The certification process is based compliance with standards regarding the production of coffee, tea, cocoa and hazelnuts. UTZ has developed a Code of Conduct (Code), which addresses the production process, and Chain of Custody Standard (CHoC), which addresses the process of transporting goods from the farm to supermarket shelves.<sup>126</sup> Compliance with the Code is required for recognition of UTZ certification, with compliance being confirmed through a review by an independent auditor.<sup>127</sup> The Code requires certified farms to continuously improve their practices over time, as they must initially meet the core requirements, before more detailed requirements are introduced in subsequent years.

Further, CHoC regulates the movement of UTZ certified products through the supply chain and logs their journey in the Good Inside Portal or MultiTrace. This process seeks to ensure transparency throughout the supply chain and provide buyers and sellers with further information on the certification of a product. UTZ encourages companies to join the certification scheme to contribute to sustainability in farming, improve supply quality, strengthen company reputation and improve customer satisfaction.<sup>128</sup>

<sup>122</sup> 'SA8000', *Social Accountability International (SAI)*, 2019, <http://www.sa-intl.org/index.cfm?fuseaction=Page.ViewPage&PageID=1689>.

<sup>123</sup> 'Revision process', *SAI*, 2019, <http://www.sa-intl.org/index.cfm?fuseaction=Page.ViewPage&pageID=1546>.

<sup>124</sup> 'SA8000 Standard', *SAI*, 2019, <http://www.sa-intl.org/index.cfm?fuseaction=Page.ViewPage&PageID=1689>.

<sup>125</sup> 'About Us', *UTZ Certified*, 2019, <https://utz.org/who-we-are/about-utz/>.

<sup>126</sup> 'The UTZ Standard', *UTZ Certified*, 2019, <https://utz.org/what-we-offer/certification/the-standard/>.

<sup>127</sup> 'The UTZ Standard', *UTZ Certified*, 2019, <https://utz.org/what-we-offer/certification/the-standard/>.

<sup>128</sup> 'Certification for companies', *UTZ Certified*, 2019, <https://utz.org/what-we-offer/certification/for-companies/>.

## Worker Rights Consortium (WRC)



**The Worker Rights Consortium (WRC)** is an independent labour rights monitoring organisation, which seeks to protect the rights of factory workers who produce apparel and other products.<sup>129</sup> The WRC undertakes worker-centred investigations into factory working conditions, based on research and complaints. The WRC provides recommendations to factories on remedial action. Reports on these factory investigations document the findings, the recommendations provided on remedial action, and whether the brands and factories have implemented the recommended changes.<sup>130</sup>

## Worldwide Responsible Accredited Production (WRAP)



**Worldwide Responsible Accredited Production (WRAP)** is an independent, non-profit organisation that operates a factory certification program, primarily for the apparel, footwear and sewn products sectors. The certification process is based on a factory's compliance with WRAP's 12 principles, which are a set of international labour standards regarding issues such as health and safety, legal compliance, workplace relations, environmental practices and human resources management.<sup>131</sup>

Becoming a WRAP certified facility requires completion of a five-stage process:<sup>132</sup>

- Application: the applicant must provide WRAP with information and pay a registration fee.
- Pre-audit self-assessment: the applicant must demonstrate that their facility has been operating based on socially compliant practices for at least 90 days.
- Monitoring: the applicant chooses a WRAP-accredited monitoring organisation, which will randomly audit the facility during an agreed four-week period, to determine compliance with WRAP's 12 Principles.
- Evaluation: based on the monitoring organisation's audit report, WRAP will determine whether to certify the facility.
- Certification: a facility may be certified as Platinum, Gold or Silver, based on its degree of compliance and demonstrated commitment to the WRAP Principles.

A factory must remain compliant with WRAP's 12 principles for the duration of its certification. WRAP will decertify a facility under certain circumstances, such as preventing an auditor to conduct a Post-Certification Audit (PCA) and refusing or failing to correct non-compliance identified in the PCA process. WRAP has also identified zero tolerance violations that will result in decertification, such as engaging in human rights violations, falsifying certification or production processes, and attempting to influence auditors to compromise their integrity.

<sup>129</sup> 'About', *Worker Rights Consortium (WRC)*, 2019, <https://www.workersrights.org/about/>.

<sup>130</sup> 'Factory Investigations', *WRC*, 2019, <https://www.workersrights.org/our-work/factory-investigations/>.

<sup>131</sup> 'WRAP's 12 Principles', *Worldwide Responsible Accredited Production (WRAP)*, 2019,

<http://www.wrapcompliance.org/en/12-principles>.

<sup>132</sup> 'Certification Program', *WRAP*, 2019 <http://www.wrapcompliance.org/en/certification>.

## Industry Initiatives

### The Cleaning Accountability Framework (CAF)



#### **What is CAF?**

The Cleaning Accountability Framework (CAF) is a multi-stakeholder initiative which aims to lift standards in, and increase the sustainability of, the cleaning industry. Recognising that all members of the supply chain must work together for this to occur CAF is comprised of representatives from across the supply chain, including:

- property investors, owners and managers
- cleaning companies
- employee representatives
- industry associations

CAF certification provides an opportunity for companies who have adopted best practice procurement policies, contracts and auditing tools to be recognised.

#### **Objectives<sup>133</sup>**

CAF's objectives are to lead and transform the cleaning services industry by:

- supporting sustainable and efficient cleaning services
- ensuring compliance with workplace laws and regulations
- engaging workers and contractors
- fostering accountability and transparency in the cleaning services industry
- recognising stakeholders who have implemented best practice standards.

#### **The Certification Process**

Building Owners, Facilities Managers, Cleaners or other relevant bodies can nominate a site for CAF certification within specified rounds. Certification involves completion of:

1. Self-assessment checklist to completed by applicants at time of application
2. Audit completed by an independent third party auditor
3. Worker Engagement meetings and surveys undertaken at the site by CAF and the union
4. Certification Panel review of the results of the audit and worker engagement and requests for rectification
5. Certification for three years
6. Health Check annually

#### **How CAF is funded?**

CAF received its initial funding from industry bodies. CAF is currently funded by contributions for joining its advisory board and audit costs.

<sup>133</sup> 'About us', Cleaning Accountability Framework, 2019, <https://www.cleaningaccountability.org.au/about-us/>

**What is Fair Farms?**

Fair Farms has been developed by industry for industry to help address non-compliance with employment law in the horticulture supply chain. The program provides tools, information and training to employers to help them navigate the employment law system and minimise unintended non-compliance.

The certification process provides an opportunity for businesses to demonstrate their compliance to their customers, workers and consumers. It is expected that this transparency will, over time, drive rogue operators from attractive market segments and help level the playing field in the industry.

**Objectives<sup>134</sup>**

Fair Farm's key objective is to lift employment practices across the Australian horticulture industry and to reduce the risk of workers exploitation. Fair Farms aims to achieve this through:

- Training: give growers and other participating businesses the knowledge and tools they need to be a compliant and responsible employer.
- Certification: provide a mechanism that clearly shows to the market and the community who is committed to fair work practices.
- Market enforcement: engage with buyers of fresh produce in true partnership whereby buyers make the commitment to source only from those suppliers that have demonstrated their commitment to responsible employment practices.

**The Certification process**

Suppliers register to join the Fair Farms initiative on the Fair Farms website. The certification process after registration has 5 main steps.

1. Online Self Assessment to test current employment practice compliance
2. Training through online e-learning, phone consults or face to face training sessions
3. Audit by a Fair Farms approved Certification Body and corrective actions taken as required
4. Certification
5. Recertification either 1, 2 or 3 years after initial certification depending on the audit outcome

**How Fair Farms is funded**

Fair farms was originally funded by the Fair Work Ombudsman's (FWO) Community Engagement Grants Program. This programme offered \$1.8 million per year for four years to not-for-profit community organisations to undertake a range of services, projects and programs of work to supplement the FWO's statutory functions. On 5 November 2018, the Australian Government announced further funding of \$1.5 million in support of the initiative.

<sup>134</sup> 'Objectives', Fair Farms, 2019, <https://www.fairfarms.com.au/about-us/#objectives>

## Fair Food Program



The Fair Food Program, led by the Coalition of Immokalee Workers (CIW), is a multi-stakeholder initiative involving farmers, farm workers and retail food companies, which seeks to ensure safe and fair working conditions and wages for farm workers. The program is underpinned by the Fair Food Code of Conduct, which establishes broad principles for employment practices and minimum requirements for participating growers.<sup>136</sup> The Code was developed through a process of negotiation between relevant stakeholders and has been designed to evolve as the Program and agriculture industry change. A Guidance Manual has been developed to support participating growers to implement the Code.

However, at the time of writing, this document is not public.

The key components of the Fair Food Program include the following:<sup>137</sup>

- *Fair Food Agreements* – legally binding agreements between CIW and participating buyers establish the commitments and reforms required of buyers. The agreements include two key provisions:
  - *Fair Food Premium* – the agreements require participating buyers to pay a premium in addition to the price they pay for fruit or vegetables, with the aim to reduce the financial stress experienced by farmworkers. The Fair Food Standards Council (FFSC) monitors payments of this premium through the supply chain to ensure that the payment is received by farm workers and noted as a line-item bonus on their payslip.
  - *Market enforcement* – the agreements stipulate that participating buyers must suspend purchases from growers that are not compliant with the Code, which provides a market incentive for growers to achieve and maintain compliance.
- *Worker education* – the CIW provides education programs for all participating growers' farms, including on workers' rights and responsibilities. Through education, the Fair Food Program seeks to equip farm workers with the knowledge and confidence to identify dangerous working conditions or management, enabling the early prevention of workplaces abuses and promoting compliance with the Code.
- *Complaint mechanism* – the Program has established a toll-free complaint line for workers to report potential violations of the Code. Complaints are investigated by the FFSC, in collaboration with the relevant participating grower. Complaint resolutions ideally include an educational component, which involves meetings with relevant stakeholders to ensure transparency and assure farm workers that complaints are being addressed and resolved without retaliation from their employer. Data regarding the resolution process and company practices and maintained by FFSC.

*Audits* – The FFSC functions as a third-party monitoring organisation for the Program and is responsible for undertaking audits of participating growers' farms. The audits include interviews with workers and all levels of management, observation of harvesting practices, and reviews of the company's implementation of the Code and payroll records. Through the auditing process, the FFSC promotes the transparent operation of participating farms.

The Program has been described as "the most comprehensive, verifiable and sustainable social responsibility program in US agriculture."<sup>141</sup>

<sup>135</sup> 'About the Fair Food Program', Fair Food Program, <https://www.fairfoodprogram.org/about-the-fair-food-program/>.

<sup>136</sup> 'Fair Food Code of Conduct', Fair Food Standards Council (FFSC), 2018, <http://www.fairfoodstandards.org/resources/fair-food-code-of-conduct/>.

<sup>137</sup> 'About the Fair Food Program', Fair Food Program, <https://www.fairfoodprogram.org/about-the-fair-food-program/>.

## Milk with Dignity Program



The Milk with Dignity Program is a multi-stakeholder initiative that seeks to improve conditions for workers in dairy supply chains.<sup>138</sup> The program is underpinned by the Milk with Dignity (MD) Code, which was developed collaboratively with dairy industry workers and establishes industry standards for wages, work health and safety, rest, and other labour conditions to be upheld by participating farms. The program provides incentives for farms to become compliant with the Code, as participating buyers pay a premium to participating farms to support them in achieving compliance and to reward compliant farms.

Milk with Dignity is implemented, monitored and enforced by the Milk with Dignity Standards Council (MDSC), which is an independent, non-profit organisation. The MDSC's role includes conducting annual audits of participating farms to verify ongoing compliance, investigating and resolving complaints through established procedures, and ensuring that participating farms remain transparent through providing the MDSC with information on their employment practices.<sup>145</sup>

<sup>138</sup> 'About', Milk with Dignity Standards Council (MDSC), 2019, <https://milkwithdignity.org/about>

<sup>139</sup> 'Milk with Dignity Code of Conduct', MDSC, 2017, <https://milkwithdignity.org/milk-dignity-code-conduct>.

## Findings

Many of the international frameworks and programs listed above provide examples of approaches that have been developed to address issues specific to global supply chains and are most prevalent in sectors with the most well-known labour-abuse issues such as agriculture and garment manufacturing. The only initiative specifically targeting transport is the Maritime Labour Convention which, while comprehensive in terms of intent and coverage (covering 91% of the global shipping fleet)<sup>140</sup>, is dependent on the effectiveness of local enforcement regimes. While all the initiatives and frameworks have elements that are relevant to the general consideration with regards to the governance and auditing of safety, training and remuneration standards in supply chains, the following section will consider those initiatives which provide the most obvious transferability to the Australian road transport and logistics sector.

### Industry Initiatives most relevant to the Australian road transport and logistics sector

The Fair Farm Program (FFP) developed to improve the working conditions of largely immigrant farmworkers in Florida, was listed by the Harvard Business review as being one of the '15 social movements that defied the odds and achieved life-changing results.'<sup>141</sup> The diagram below (from the Fair Food website<sup>142</sup>) illustrates the various aspects of the scheme.



**Figure 1: Aspects of the Fair Food Scheme**

Assessed against the functions considered in the transport specific examples (Section 1), the FFP undertakes activities in addressing safety standards, reviewing appropriate payment regimes, examining enforceable standards and undertaking dispute resolution with some of these functions being undertaken by the Fair Food Standards Council whose mission is to 'monitor the development of a sustainable agricultural industry that advances the human rights of farmworkers, the long-term interests of growers, and the ethical supply chain concerns of retail food companies through implementation of the FFP'<sup>143</sup>. The Milk with Dignity Program (MD) is very similar in structure and purpose to the FFP. The Cleaning Accountability Framework (CAF)

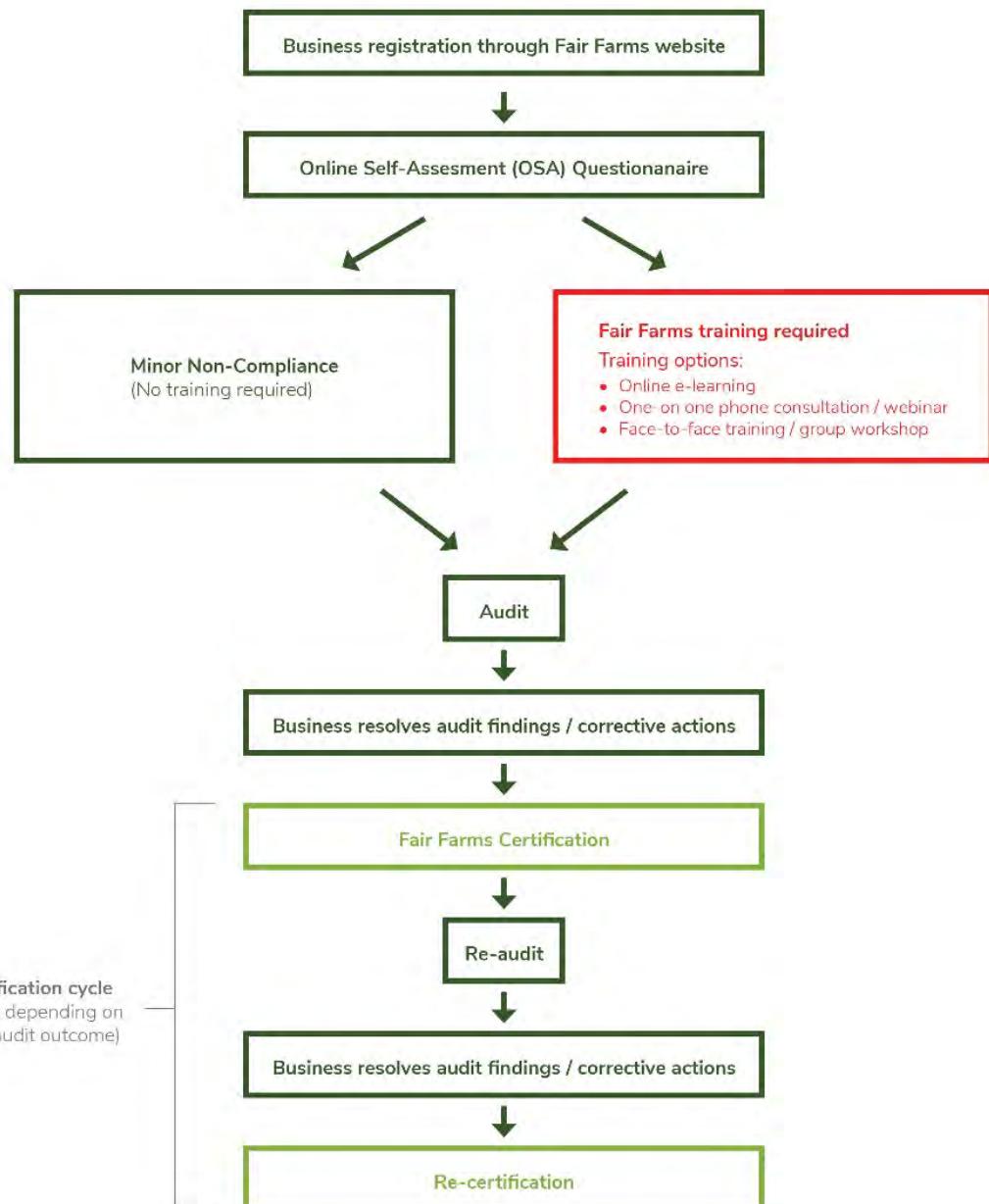
<sup>140</sup> [https://www.ilo.org/global/standards/maritime-labour-convention/WCMS\\_664151/lang--en/index.htm](https://www.ilo.org/global/standards/maritime-labour-convention/WCMS_664151/lang--en/index.htm)

<sup>141</sup> Susan Wolf-Dikoff, and Abe Grindle, 'Audacious Philanthropy' (2017), <https://hbr.org/2017/09/audacious-philanthropy>

<sup>142</sup> 'About the Fair Food Program', *Fair Food Program*, n.d., <https://www.fairfoodprogram.org/about-the-fair-food-program/>

<sup>143</sup> 'Home' *Fair Food Standards Council*, 2018, <http://www.fairfoodstandards.org/>

is the Australian example that most closely reflects the FFP, although much more recently established. Like FFP, CAF is a multi-stakeholder program that is based on what is known as 'Worker-driven Social Responsibility' (WSR) meaning that a foundational aspect is the involvement of workers in auditing and monitoring the supply chain.<sup>144</sup> CAF has also developed standards and guidelines that establish industry standards. This differentiates CAF from the other Australian example listed in the table – 'Fair Farms'. While Fair Farms has an audit, certification and education process (as shown in Figure 2) this is focused on existing industry standards rather than establishing industry standards. Fair Farms was developed through public funding and is not multi-stakeholder whereas CAF has been funded by industry and union participants. The 'by industry, for industry' nature of Fair Farms is reminiscent of TruckSafe although the emphasis is on employee entitlements rather than safety compliance.



**Figure 2: Fair Farms Certification Pathway<sup>145</sup>**

<sup>144</sup> Worker involvement is associated with the programs that have greater reliability given the higher degree of difficulty for false information to make it through the audit process.

<sup>145</sup> ‘How it works’, Fair Farms, 2019 <https://www.fairfarms.com.au/about-us/#how-it-works>

Scholarly comparisons of multi-stakeholder versus industry (or business only) schemes suggest that allowing contributions from a variety of parties ‘increases the quality of decision-making and governance’<sup>146</sup> of multi-stakeholder standards and that a multi-stakeholder approach is the ‘gold-standard’ of these initiatives. The academic analyses support a common sense conclusion that a coalition of business, worker representatives and other parties is more likely to achieve broader political and societal legitimacy as it requires the balancing of divergent interests in order to be developed and implemented.

## Observations

- |   |  |
|---|--|
| 5 | There are a substantial number of existing schemes with well-established processes and models that, (in common with TEACHO) are aimed at improving ‘training and compliance related to...career pathways, industrial rights, health and safety’ <sup>147</sup> of workers in various industries. |
| 6 | Industry-based multi-stakeholder initiatives are reminiscent of the recommendations in the ILO action guidelines for decent work in road transport. Specifically, that state agencies, employers and workers should cooperate to develop innovative regulation.                                  |
| 7 | Multi-stakeholder initiatives are more likely to be perceived as legitimate due to the variety of interests that are represented. This may provide an opportunity to overcome political barriers that may be present for stakeholders working individually.                                      |
| 8 | Most relevant examples in this section also often include other stakeholders such as consumers and clients in order to impact the overall structuring of the market rather than simply monitor compliance with safety or labour standards.   |

<sup>146</sup> Luc Fransen, Ans Kolk and Miguel Rivera-Santos, ‘The multiplicity of international corporate social responsibility standards: Implications for global value chain governance’, *Multinational Business Review* (2019) p. 7.

<sup>147</sup> ‘About us’, TEACHO, 2019, <https://www.teacho.com.au/index.php/about>

# Options for the Australian Transport and Logistics Sector



# Summary of Options for the Australian Transport and Logistics Sector

Sections 1 and 2 of this report highlight the range of institutions, frameworks and regulatory mechanisms that have been developed which aim to improve training, career pathways, compliance with industrial rights and health and safety in the transport and logistics sector, and in other sectors that experience labour and competition issues related to supply chain structures. Analysis of these schemes reveals three main approaches: development of formal regulation to establish new legislative protections, and/or new statutory bodies, co-regulation/multi-stakeholder initiatives, and industry regulation, that are considered in more detail below.

## 1 Development of formal regulation to establish new legislative protections and/or establish new statutory bodies

As evident in Section 1, the most extensive models of regulation that simultaneously address safety, planning, enforceable standards, dispute resolution and payment regimes are those combining national legislative reform, the use (or creation) of transport specific institutions for enforcement and dispute resolution – such as the Korean ‘Safe Rates’ model or the abolished *Road Safety Remuneration Act 2012* and associated Road Safety Remuneration Tribunal in Australia. While noting that there has been an Inquiry announced by the Australian Senate into the importance of a viable, safe, sustainable and efficient road transport industry, the outcomes and recommendations are as yet unclear. Furthermore, recommendations arising from Senate inquiries are not necessarily converted into legislation or other forms of formal regulation and indeed, depending on the composition of the inquiry committee, may be dismissed as being driven by party-political interests.<sup>148</sup>

## 2 Co-regulation/Multi-stakeholder initiatives

There are a number of non-transport multi-stakeholder examples (both international and industry-based) that would have aspects with applicability in other sectors such as transport and if adapted could fulfil the five functions examined in Section 1. As noted above, CAF and the FFP provide a comprehensive process that sees organisations submit themselves to a certification process that aims to provide market differentiation and drive out unscrupulous businesses. These approaches initially rely on consensus with key industry stakeholders to jointly create the codes of conduct and auditing standards and processes that are the basis for certification. This could include aspects related to health and safety, payment regimes, training and career opportunities. A key element of these schemes is the underlying understanding and leverage of supply chain dynamics – requiring the involvement not only of workers and their direct employers but of clients or buyers with substantive economic influence. In the FFP this is formalised through a binding ‘Market Enforcement’ agreement signed by the biggest buyers (for example Walmart and Subway).

An issue to be considered in replicating these models is the establishment of a sustainable funding model. CAF has been reliant on contributions from a small number of committed stakeholders and while funding information about FFP is difficult to source it would appear that there is a heavy emphasis on philanthropic sources.

<sup>148</sup> See the minority dissenting report of the 2018 Senate Inquiry into the Future of Work and Workers [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Future\\_of\\_Work\\_and\\_Workers/FutureofWork/Report](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Future_of_Work_and_Workers/FutureofWork/Report)

The Australian 'Fair Farms' program shares some features with the multi-stakeholder initiatives. It aims to improve compliance with minimum labour standards and contains an audit process that leads to certification. However, that it was developed 'by industry, for industry' is problematic. Serious and systemic issues of labour exploitation and wage theft have been exposed within the horticulture sector. Consequently, a system in which the sector essentially regulates itself is questionable. However, the Fair Farms program does include auditing and certification by a third party and a publicly available audit guide that includes worker interviews as part of the data collection.

The public funding of the Fair Farms project has been a significant factor in its ability to develop resources and profile and offers a model for the initial establishment of initiatives in other sectors which may provide a political compromise between legislative change and a totally independently funded initiative such as CAF.

## Further Research

It is suggested that after consideration of the schemes presented in this report, TEACHO pursue more detailed information about the most relevant schemes including; funding, efficacy measurement and ROI issues. This would necessarily include a consideration of the costs to transport workers, transport operators and the broader economic and social costs of inactivity and maintenance of the status quo.

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# Appendices



## Appendices

### Appendix A: Literature Review: search results from Scopus and Google Scholar

Article	Summary
<p><b>Anderson, Naomi J., Caroline K. Smith, and Jesse L. Byrd. 'Work-Related Injury Factors and Safety Climate Perception in Truck Drivers'. <i>American Journal of Industrial Medicine</i> 60, no. 8 (2017): 711-723.</b></p>	<p>This article examines external influences on driver safety and drivers' perceptions of safety climate, with factors such as driver fatigue and time-related pressures being associated with a higher risk of work-related injury. The findings suggest that drivers with a positive perception of their work safety climate is less likely to experience work-related injury and more likely to file for workers' compensation in the case of a work-related injury.</p>
<p><b>Apostolopoulos, Yorghos, Michael Lemke, and Sevil Sönmez. 'Risks Endemic to Long-Haul Trucking in North America: Strategies to Protect and Promote Driver Well-Being'. <i>New Solutions</i> 24, no. 1 (2014): 57-81.</b></p>	<p>This article focuses on work-related stresses that impact driver health and safety outcomes and proposes strategies to promote driver health and safety.</p>
<p><b>Baas, Peter H., Samuel G. Charlton, and Gary T. Bastin. 'Survey of New Zealand Truck Driver Fatigue and Fitness for Duty'. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> 3, no. 4 (2000): 185-193.</b></p>	<p>This article focuses on truck drivers' experiences of fatigue in New Zealand. It examines research into compliance with regulations regarding maximum driving hours enforcement mechanisms, and the external influences that impact truck driver safety and fitness for duty.</p>
<p><b>Belzer, Michael H. 'The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety' in Presented to United States House of Representatives Committee on Small Business (2012).</b></p>	<p>This article examines the impact of economic pressures and pay-based incentives to falsify logs of working hours on driver fatigue, which contributes to poor safety outcomes.</p>
<p><b>Belzer, Michael H. 'Work-Stress Factors Associated with Truck Crashes: An Exploratory Analysis'. <i>The Economic and Labour Relations Review</i> 29, no. 3 (2018): 289-307.</b></p>	<p>This article examines the role of work-related pressures on driver safety. The findings suggest that the economic factors affecting drivers, which stem from market pressures on drivers and carriers, play a significant role in truck crashes.</p>
<p><b>Crum, Michael R., and Paula C. Morrow. 'The Influence of Carrier Scheduling Practices on Truck Driver Fatigue'. <i>Transportation Journal</i> 42, no. 1 (2002): 20-41.</b></p>	<p>This article examines the impact of scheduling practices on driver fatigue. The findings suggest that the experience of fatigue can be mitigated through minimising night driving hours, providing drivers with assistance loading and unloading rucks, and voluntary driver attendance at safety training and meetings.</p>

<p><b>Douglas, Matthew A., and Stephen M. Swartz.</b> 'A Multi-Dimensional Construct of Commercial Motor Vehicle Operators' Attitudes Toward Safety Regulations'. <i>The International Journal of Logistics Management</i> 20, no. 2 (2009): 278-293.</p>	<p>This article develops a means of measuring truck drivers' perceptions of the enforcement and effectiveness of safety regulations, to support the development of driver training programs and improve safety outcomes in commercial road transport.</p>
<p><b>Douglas, Matthew A., and Stephen M. Swartz.</b> 'Truck Driver Safety: An Evolutionary Research Approach'. <i>Transportation Journal</i> 55, no. 3 (2016): 258.</p>	<p>This article examines safety in the trucking industry in North America and develops a framework to inform safety interventions relating to driver hiring and training.</p>
<p><b>Douglas, Matthew A., Stephen M. Swartz, Robert G. Richey, and Matthew D. Roberts.</b> 'Risky Business: Investigating Influences on Large Truck Drivers' Safety Attitudes and Intentions'. <i>Journal of Safety Research</i> 70 (2019): 1-11.</p>	<p>This article examines how drivers' attitudes towards safety and behavioural intentions are influenced by their perceptions of carrier safety climate. The findings suggest that safety climate directly impacts drivers' attitudes towards safety norms and regulations, and indirectly influences their intentions to engage in unsafe driving practices.</p>
<p><b>Faulkner, Michael R., and Michael H Belzer.</b> 'Returns to Compensation in Trucking: Does Safety Pay?'. <i>The Economic and Labour Relations Review</i> 30, no. 2 (2019): 262-284.</p>	<p>This article supports the link between driver pay and safety outcomes. The findings demonstrated that higher wages resulted in higher driver retention rates. This resulted in better road safety outcomes and business outcomes, as more experienced drivers had lower crash costs and became more productive with experience.</p>
<p><b>Gargoum, Suliman A., Amy Miyoung Kim, Hui Zhang, and Tony Z. Qiu.</b> 'Towards Establishing Effective Commercial Driver Training Standards: Analysis of Industry Opinions from Alberta'. <i>Canadian Journal of Civil Engineering</i> 44, no. 11 (2017): 899-910.</p>	<p>This article examines commercial drivers' experiences of training and their attitudes towards a standardised approach to training, with the results indicating that drivers acknowledge the need for standard training. The paper recommends that Canada adopt a unified approach to commercial driver training, which should specify financial responsibility and when drivers must complete different training modules during their career.</p>
<p><b>Goel, Asvin, and Thibaut Vidal.</b> 'Hours of Service Regulations in Road Freight Transport: An Optimization-Based International Assessment'. <i>Transportation Science</i> 48, no. 3 (2014): 391-412.</p>	<p>This article identifies the impact of fatigue on driver safety and compares the impact of different regulations on risk and safety outcomes.</p>

<p><b>Hanowski, Richard J., Walter W. Wierwille, Andrew W. Gellatly, Ronald R. Knipling, and Robert Carroll.</b> 'Safety Issues in Local/Short Haul Trucking: The Drivers' Perspective'. <i>Proceedings of the Human Factors and Ergonomics Society Annual Meeting</i> 42, no. 17 (1998): 1185-1189.</p>	<p>This article examines the perceived safety concerns of drivers in the trucking industry, with a particular focus on the impact of fatigue. Key concerns included problems relating to light vehicles, stress associated with time pressure, driver inattention and fatigue, and roadway design.</p>
<p><b>Hopkins, Andrew.</b> 'Truck Deaths: A Suggestion'. <i>Journal of Occupational Health and Safety - Australia and New Zealand</i> 8, no. 3 (1992): 243-249.</p>	<p>This article focuses on the impact of economic pressures on long driving hours, with drivers found to be using unpaid break periods for loading and unloading their truck, instead of resting. Therefore, economic pressures contribute to driver fatigue and poor safety outcomes in the road transport industry.</p>
<p><b>Johnstone, Richard, Igor Nossar, and Michael Rawling.</b> 'Regulating Supply Chains to Protect Road Transport Workers: An Early Assessment of the Road Safety Remuneration Tribunal'. <i>Federal Law Review</i> 43, no. 3 (2015): 397-421.</p>	<p>This article examines the role and effectiveness of the Road Safety Remuneration Tribunal (RSRT). This research was undertaken prior to the abolition of the RSRT in 2016 and considers the degree to which the tribunal was willing to exercise its authority to impose enforceable obligations in road transport supply chains.</p>
<p><b>Kaine, Sarah, and Michael Rawling.</b> "Comprehensive Campaigning" in the NSW Transport Industry: Bridging the Divide Between Regulation and Union Organizing'. <i>Journal of Industrial Relations</i> 52, no. 2 (2010): 183-200.</p>	<p>This article examines precarious employment in the road transport industry and analyses the Transport Workers Union's (TWU) campaign to establish enforceable minimum working conditions and associated regulatory mechanisms.</p>
<p><b>Kamdar, Abdool, Frank Kienhöfer, Bruno Emwanu, Gert Heyns, and Paul A. Nordengen.</b> 'Operational Improvement Outcomes Through Voluntary Compliance in Road Transport Operations'. <i>Proceedings of the International Conference on Industrial Engineering and Operations Management</i> (2018): 1021-1031.</p>	<p>This conference paper examines the outcomes of South Africa's Road Transport Management System (RTMS). Benefits of certification include improved safety, reduced incidents of crashes, and increased operational efficiency. The key barriers to RTMS certification were lack of awareness of the system or the requirements for certification.</p>
<p><b>Kemp, Elyria, Steven W. Kopp, and Eramus Kemp.</b> 'Six Days on The Road'. <i>The International Journal of Logistics Management</i> 24, no. 2 (2013): 210-229.</p>	<p>This article examines the impact of severe time pressures on driver fatigue and identifies a link between time pressures and negative attitudes towards safety regulations. Further, it highlights the fact that drivers with negative attitudes towards safety regulations are more likely to violate regulations relating to working hours.</p>

<p><b>Kudo, Takahiko, and Michael H. Belzer.</b> ‘The Association Between Truck Driver Compensation and Safety Performance’. <i>Safety Science</i> 120 (2019): 447-455.</p>	<p>This article examines the impact of drivers’ compensation on safety outcomes and supports the hypothesis that higher compensation for drivers improves safety performance.</p>
<p><b>Mayhew, Claire, and Michael Quinlan.</b> ‘Economic Pressure, Multi-Tiered Subcontracting and Occupational Health and Safety in Australian Long-Haul Trucking’. <i>Employee Relations</i> 28, no. 3 (2006): 212-229.</p>	<p>This article examines the links between economic pressures, precarious employment through multi-tiered subcontracting, and poor health and safety outcomes for drivers. The findings highlight the need for occupation health and safety regulations to address business practices that impact safety, particularly in elaborate supply chains involving subcontractors.</p>
<p><b>Monaco, Kristen, Lindy Olsson, and Justin Hentges.</b> ‘Hours of Sleep and Fatigue in Motor Carriage’. <i>Contemporary Economic Policy</i> 23, no. 4 (2005): 615-624.</p>	<p>This article examines the impact of hours of sleep on driver fatigue and identifies the inverse relationship between hours of sleep and hours of work. The findings suggest that safety issues associated with driver fatigue may be addressed through payment schemes and regulation of work hours.</p>
<p><b>Mooren, Lori, Ann Williamson, and Raphael Grzebieta.</b> ‘Evidence that Truck Driver Remuneration is Linked to Safety Outcomes: A Review of the Literature’. <i>Australasian Road Safety Conference. Transport and Road Safety (TARS) Research</i>, University of New South Wales Australia, 2015.</p>	<p>This conference paper examines the role of economic pressures on driver safety and existing evidence supporting the link between driver safety and remuneration systems. Evidence also suggests that the type of remuneration impacts a driver’s likelihood of engaging in unsafe driving practices.</p>
<p><b>Morrow, Paula C., and Michael R. Crum.</b> ‘Antecedents of Fatigue, Close Calls, and Crashes Among Commercial Motor-Vehicle Drivers’. <i>Journal of Safety Research</i> 35, no. 1 (2004): 59-69.</p>	<p>This article examines factors that may induce fatigue in commercial motor vehicle drivers. The findings suggest that safety practices, such as providing drivers with assistance in loading and unloading from vehicles, can offset the impact of factors associated with fatigue.</p>
<p><b>Murray, Daniel D., Brenda M. Lantz, and Stephen Keppler.</b> ‘Predicting Truck Crash Involvement: Developing A Commercial Driver Behavior Model and Requisite Enforcement Countermeasures’. <i>47<sup>th</sup> Annual Transportation Research Forum</i> (2006): 653-668.</p>	<p>This conference paper examines strategies that address unsafe driver behaviour. It identified several elements that were present in successful strategies, which include undertaking visible enforcement activities, covert enforcement activities, establishing programs to address aggressive driving, and addressing the behavioural patterns of both commercial motor vehicle (CMV) and non-CMV drivers</p>
<p><b>Njå, Ove, and Svein Håkon Fjelltun.</b> ‘Managers’ Attitudes Towards Safety Measures in The Commercial Road Transport Sector’. <i>Safety Science</i> 48, no. 8 (2010): 1073-1080.</p>	<p>This article examines the costs and benefits associated with a business’ investment in risk management and safety and managers’ attitudes towards safety initiatives.</p>

<p><b>Nordengen, Paul A., and Nico Pienaar.</b>  <b>'The Road Transport Management System (RTMS): A Self Regulation Initiative in Heavy Vehicle Transport in South Africa'.</b> <i>26<sup>th</sup> Annual Southern African Transport Conference (SATC): The Challenges of Implementing Policy</i> (2007): 180-188.</p>	<p>This conference paper focuses on the development of self-regulation in South Africa's commercial transport industry through the Road Transport Management System (RTMS).</p>
<p><b>Raftery, Simon J., Jennifer A. L. Grigo, and Jeremy E. Woolley.</b> 'Heavy Vehicle Road Safety: Research Scan. <i>Journal of the Australasian College of Road Safety</i> 22, no. 3 (2011): 18-24.</p>	<p>This article examines approaches to improving road safety outcomes, including accreditation schemes, speed management and enforcement, and human factors.</p>
<p><b>Rawling, Michael, and Sarah Kaine.</b>  <b>'Regulating Supply Chains to Provide a Safe Rate for Road Transport Workers'.</b> <i>Australian Journal of Labour Law</i> 25 (2012): 237-257.</p>	<p>This article examines attempts to regulate precarious workers in the road transport industry and the potential of the Road Safety Remuneration Tribunal to improve working conditions. It also summarises evidence supporting the link between driver pay and safety outcomes.</p>
<p><b>Rawling, Michael, Nicole Shepherd, Richard Johnstone, and Igor Nossar.</b>  <b>'Australian Supply Chain Regulation: Practical Operation and Regulatory Effectiveness - Draft Report on Road Transport Sector Regulation'.</b> <i>University of Technology Sydney</i> (2019).</p>	<p>This draft report examines the regulation of supply chains in Australia's road transport industry and outlines existing systems regulation in New South Wales and Queensland. Further, the research highlights the absence of a common approach to monitoring and enforcing standards.</p>
<p><b>Rodríguez, Daniel A., Marta Rocha, Asad J. Khattak, and Michael H. Belzer.</b>  <b>'Effects of Truck Driver Wages and Working Conditions on Highway Safety: Case Study'.</b> <i>Transportation Research Record: Journal of The Transportation Research Board</i> 1833, no. 1 (2003): 95-102.</p>	<p>This article examines the role of occupational factors, such as pay and tenure, on a driver's risk of a crash. The findings suggest that higher rates of pay and pay rises for drivers result in lower risk of crash and a greater probability of no crashes.</p>
<p><b>Spear, Jerome M.</b> 'Safety on the Road'. <i>Water Well Journal</i> 61, no. 4 (2007): 40-41.</p>	<p>This article examines the importance of fleet safety management programs in improving safety outcomes in the road transport industry, reducing the risk of fleet incidents by 40-50%.</p>

<p><b>Swartz, Stephen M., and Matthew A. Douglas.</b> 'The Independence of Independents: Influences on Commercial Driver Intentions to Commit Unsafe Acts'. <i>Transportation Journal</i> 48, no. 1 (2009): 23-41.</p>	<p>This article focuses on owner-operators' perceptions of carrier safety climate. The findings identify that a driver's intention to engage in unsafe driving practices is influenced by a carrier's use of either supportive safety practices (e.g. focus on safety training and awareness for drivers) or directive safety practices (e.g. focus on monitoring and controlling). The research demonstrates that supportive practices influenced drivers' behavioural intentions, which may inform the development of more effective driver training to improve safety outcomes.</p>
<p><b>Thorning, Peter, Victoria Thomson, Karen Bow, and Carol Grainger.</b> 'Safety in the Transport Industry'. <i>Journal of the Australasian College of Road Safety</i> 22, no. 3 (2011): 30-37.</p>	<p>This article examines safety initiatives in the road transport sector and suggests that innovation in road safety is not being shared between operators. It highlights the role of industry networks in developing collaborative solutions to improving safety outcomes for drivers.</p>
<p><b>Walker, Christopher K.</b> 'Improving Safety in the Australian Trucking Industry: The Benefits of Voluntary Accreditation Programs'. <i>Road and Transport Research</i> 21, no. 4 (2012): 15-23.</p>	<p>This article examines structural factors that shape safety outcomes in the Australian industry. It identifies the role that voluntary accreditation programs play in improving safety and argues that industry associations and the government must work to increase participation in these programs.</p>
<p><b>Walker, Christopher K.</b> 'Neoliberalism and the Reform of Regulation Policy in the Australian Trucking Sector: Policy Innovation or a Repeat of Known Pitfalls?'. <i>Policy Studies</i> 37, no. 1 (2015): 72-92.</p>	<p>This article focuses on the role of voluntary self-regulation in Australia's trucking sector, examining why such forms of regulation continue to be adopted, despite known weaknesses.</p>
<p><b>Williams, Emily, and Kristen Monaco.</b> 'Accidents and Hours-Of-Service Violations Among Over-The-Road Drivers'. <i>Transportation Quarterly</i> 55, no. 1 (2001): 105-115.</p>	<p>The findings of this research indicate that drivers who experience economic pressure experience poorer safety outcomes, as they are more likely to violate safety regulations and have a higher risk of being involved in an accident.</p>
<p><b>Williamson, Ann and Rena Friswell.</b> 'The Effect of External Non-Driving Factors, Payment Type and Waiting and Queuing on Fatigue in Long Distance Trucking'. <i>Accident Analysis and Prevention</i> 58 (2013): 26-34.</p>	<p>This article examines the impact of external influences on driver fatigue, such as incentive-based remuneration. The findings indicate that mandating payment for non-driving work would improve safety outcomes and efficient in long distance road transport. .</p>

## Appendix B: Literature identified through informal interviews

Article	Summary
<p><b>Belzer, Michael H.</b> 'The Economics of Long Work Hours: Using Incentives to Change Behavior'. Presentation, Working Time Society's 24th International Symposium on Shiftwork and Working Time - Coeur d'Alene, Idaho, 2019.</p>	<p>This presentation examines the economics of the commercial road transport industry. It identifies factors that impact health and safety outcomes and work-stress, such as economic pressures, irregular schedules and long hours. It also examines the link between pay and safety in road transport. Belzer highlights the role that competition plays in forcing carriers to reduce prices, which results in lower pay for drivers. Lower pay increases safety risks, as drivers experience greater pressure and are more likely to engage in unsafe driving and hours of work.</p>
<p><b>Forsyth, Anthony.</b> 'Regulating Australia's 'Gangmasters' Through Labour Hire Licensing'. <i>Federal Law Review</i> 47, no. 3 (2019): 469-493.</p>	<p>This article examines the effectiveness of state-based regulation of labour hire providers that are exploiting vulnerable workers. The article suggests that the state-based licensing schemes represent an effective new approach to managing noncompliance with work-related legislation. It also considers potential approaches to the issue at the federal level.</p>
<p><b>Hege, Adam, Michael Lemke, Yorghos Apostolopoulos, Brian Whitaker, and Sevil Sönmez.</b> 'Work-Life Conflict Among U.S. Long-Haul Truck Drivers: Influences of Work Organization, Perceived Job Stress, Sleep, and Organizational Support'. <i>International Journal of Environmental Research and Public Health</i> 16, no. 6 (2019): 1-19.</p>	<p>This article examines factors that influence work-life balance and job-related stress in the U.S. long-haul trucking industry. The findings indicate that the scheduling of shifts and sleep outcomes can be effective in improving work-life balance for drivers.</p>
<p><b>Matthews, Lynda R., Michael G. Quinlan, and Philip Bohle.</b> 'Posttraumatic Stress Disorder, Depression, And Prolonged Grief Disorder in Families Bereaved by a Traumatic Workplace Death: The Need for Satisfactory Information and Support'. <i>Frontiers in Psychiatry</i> 10 (2019): 1-11.</p>	<p>This article examines the impact of workplace fatalities on the mental health and wellbeing of bereaved families of drivers, with a focus on experiences of posttraumatic stress disorder, major depressive disorder, and prolonged grief disorder. The findings demonstrate the need for improved support and satisfactory information to be provided to families to improve mental health outcomes.</p>

<p><b>Matthews, Lynda R., Richard Johnstone, Michael Quinlan, Olivia Rawlings-Way, and Philip Bohle. 'Work Fatalities, Bereaved Families and The Enforcement of OHS Legislation'. <i>Journal of Industrial Relations</i> (2019): 1-20.</b></p>	<p>This article examines the impact of work fatalities on the families of workers. The findings highlight the significance of investigative and prosecutorial processes in representing justice for families, through implementing appropriate measures to prevent similar fatalities. However, the findings also indicated that, in practice, families were not satisfied with the effectiveness of the processes.</p>
<p><b>Tedestedt George, Clare. "An Inquiry into Contextual Factors Impacting the Occupational Health, Safety, and Well-Being of New Zealand Truck Drivers: An Ecological Systems Approach". PhD, Auckland University of Technology, 2018.</b></p>	<p>This thesis examines the contextual factors that impact health, safety and wellbeing outcomes for truck drivers in the New Zealand road transport industry. It highlights existing barriers to change in the industry and identified the role that employment status plays in shaping driver safety.</p>
<p><b>Xia, Ting, Ross Iles, Sharon Newnam, Dan I. Lubman, and Alex Collie. 'Work-Related Injury and Disease in Australian Road Transport Workers: A Retrospective Population Based Cohort Study'. <i>Journal of Transport &amp; Health</i> 12 (2019): 34-41.</b></p>	<p>This article identifies that studies of Australian road transport workers have primarily focused on safety outcomes for drivers, with little focus on work-related injury and disease and the consequent need to take time off work. The study examines work-related injury and disease in workers in Australia's road transport and logistics industries, comparing the incidence of injury and disease and associated loss of work time in road transport with other industries.</p>



## Contact UTS

For more information about this report, contact:

Sarah Kaine  
Associate Professor  
Centre for Business and Social Innovation  
UTS Business School  
University of Technology Sydney  
E: Sarah.Kaine@uts.edu.au

*cbsi.uts.edu.au*

Centre for Business and Social Innovation  
UTS Business School  
PO Box 123  
Broadway NSW 2007