



Introduction - Seeing Machines

Seeing Machines welcomes the opportunity to contribute to the 2021-2022 Australian Federal Budget. We are an industry leader in vision-based monitoring technology that enable machines to see, understand and assist people. Our Driver Monitoring System (DMS) technology is widely used and mitigates the risks associated with driver fatigue and distraction across transport sectors.

We exist to get people home safely.

Seeing Machines is a global company, founded in 2000 and headquartered in Australia with offices in USA, Europe and Asia. Seeing Machines develops DMS technology to drive safety for Automotive, Commercial Fleet and Offroad, and Aviation.

Seeing Machines' DMS technology debuted in General Motors' Cadillac CT6 Super Cruise System in 2018 and has since been deployed in a range of other globally recognised vehicles across Europe, Asia and the USA.

The company's Guardian solution, the aftermarket DMS targeted at transport and logistics vehicles, is now connected to over 26,000 commercial vehicles in more than 26 countries, keeping professional commercial drivers, and their communities, safe.

Our greatest imaginable challenge is to contribute to the global target and achieve zero transport fatalities, in line with many governments around the world.

Recommendation Summary

Introduce a DMS grant scheme to encourage the Australian Trucking Industry to install this technology into their vehicles and mitigate the risks of fatigued and distracted driving.



Background - Supporting small business, regional Australia and road safety for all Australians.

The trucking industry is central to the Government's objectives to contribute to economic growth. The reliance on freight was never demonstrated more than during the last 12 months. Movement of freight affects Australians every day and continues to be crucial to our management of and recovery associated with Covid-19.

More efficient, safe and competitive supply chains enable increased economic output for sectors that move goods. The Competition Policy Review (Harper Review) found that in relation to road transport: even small changes in productivity in this sector can cascade through the economy, boosting productivity and output in other sectors. ⁱ

The trucking industry is critical to enabling economic opportunity for regional Australia. The Productivity Commission has reported on the importance of access to new domestic and international markets, provision of infrastructure, and removal of barriers to heavy vehicle access to encourage and support regional economic transition and development. ⁱⁱ

The trucking industry is a small and family business industry. Over 90 per cent of trucking operators are owner operators or small businesses. It is characterised by tight margins. Research by ANZ has previously put the industry's median profit margin at just over two per cent, with the bottom quartile of the industry either experiencing negative, flat, or very tight profit margins. Investing in new safety technology is often at the end of their list of priorities.

Australia's freight task is growing - predicted to grow more rapidly than the national population, increasing by more than 50 per cent in the decade to 2016, compared with a population growth of 18 per cent in the same decade. Freight volumes are predicted to increase by more than 35 per cent between now and 2040. ⁱⁱⁱ



Keeping Australians Safe on our roads

In research commissioned by the Australian Automatic Association (AAA) 92 per cent of Australians identify road safety as a key concern and 89 per cent want more government investment in road projects to improve safety.

- 1,209 people died on Australian roads in the October 2018 to October 2019. This is worse than the same time five years ago, when there were 1,178 road deaths in the 12 months to October 2014.
- 38,945 Australians were hospitalised due to traffic crashes in 2016. Concerningly, hospitalised injuries have actually increased in recent years.
- AAA-commissioned research found that road trauma costs the Australian economy almost \$30 billion annually.^{iv}

Making substantial reductions to Australia's road toll will require robust data, measurable targets backed by evidence-based policies, funding that matches the scale of the problem, transparency, and accountability.

Driver Fatigue – technology can help now. But there are barriers.

Driver fatigue is a key safety risk on Australian roads, contributing to ~20% of all motor vehicle crashes. Fatigue is of particular importance in the heavy vehicle industry as the leading cause of truck driver fatalities, with 34.8% of truck driver deaths resulting from driver fatigue. Driver distraction is another leading cause of truck driver fatalities and is becoming increasingly prevalent in Australian truck drivers, with distraction and inattention accidents more than doubling from 2017 to 2019.

Driver Monitoring Systems (DMS) that manage the risks of fatigue and distraction in real-time have been in use within Australian and global fleets for over five years.

However, small business operators are faced with a myriad of technology available to make their vehicles more cost efficient and often safety technology is not prioritised. Less sophisticated businesses will be reluctant to tackle the change management challenges associated with adopting new technology, compounding the acceptance barriers.



We believe that if the Australian Government offered support to Australian trucking companies to install Driver Fatigue and Distraction Technology, it would have a profound impact on the uptake and result in a reduction in road trauma.

Seeing Machines acknowledges that the Australian Government has recognised challenges associated with new capital and has introduced and extended the Instant Tax Write-off. This is an excellent initiative for businesses with a strong balance sheet. For those smaller, less financially robust organisations, this does not address the issue of cashflow and, as mentioned, safety technology is often de-prioritised.

Using Australian made technology to support the Trucking Industry and road safety for all Australians.

Seeing Machines' world-leading operator monitoring technology is underpinned by scientific research into human behaviour in real-time, in real-world scenarios, through independent and joint studies. The artificial intelligence we create as a result, powers computer vision algorithms, optics and processing technologies that observes the driver, pilot or operator's attention – reliably, unobtrusively, and in real time – and intervenes seamlessly when necessary.

With a focus on 'mission critical' applications, we design, manufacture and sell state-of-the-art software, hardware and systems that are currently used, trusted and incorporated across multiple global industries, by some of the world's most recognisable brands.

Whilst business efficiency and profit are essential requirements for the successful operation of a profitable commercial transport or logistics business, safety underpins everything.

With fatigue and distraction being the two biggest safety risks to employees and businesses in this sector, Seeing Machines is delivering world-leading technology that has been scientifically proven to reduce fatigue and distraction events by up to 90%.

Our **Guardian** solution currently protects over 400 commercial transport and logistics organisations and their drivers globally and represents key brands such as *Ron Finemore Transport*, *Coach USA*, *Toll Group* and *Transport for London*.



Guardian technology significantly reduces fatigue- and distraction-related events. Used by fleets around the world, which are serious about safety, Guardian delivers these benefits:

- Significantly reduces risks
- Prevents accidents before they occur with immediate intervention
- Generates data that can be used to improve safety policies and procedures
- Scientifically proven to reduce fatigue events by upwards of 90%
- Respects driver privacy through contactless and unobtrusive monitoring - encouraging high driver acceptance
- Can be integrated with existing telematics solution

There are other technologies available on the market, globally.

Seeing Machines provides best-in-class real-time technology that is proven to reduce driver-initiated incidents.

The big end of the industry recognises and has/is installing the technology. Unfortunately, it's the small operators (with one to five trucks) who make up the majority of the Australian industry and who have to place DMS technology down the list of priorities.

Recommendation:

Support the Australian Trucking Industry to install and manage Driver Monitoring Systems to protect against fatigued and distracted driving, by establishing a grant funding scheme through the Department of Industry, Science, Energy and Resources.

We recommend that in FY2021-22, the Department of Industry funds a maximum of 2,000 DMS installations. This would cover the hardware (capital) cost associated with Guardian or similar DMS technology. Eligible applicants would be able to receive up to A\$2,500 to install DMS, and ongoing monitoring fees would be a cost borne by the Trucking Company.

The budget commitment associated with this initiative is A\$5,000,000.

Short and long-term benefits to Australian Freight and logistics Industry

- Safety of drivers



- Provide Regulator with confidence to apply flexibility around driver schedules
- Extending the deployment of this technology to keep roads safer, generally by encouraging small businesses to deploy
- Facilitate education campaign around fatigue and distraction in driving

Conclusion

Seeing Machines is grateful for the opportunity to provide recommendations for the development of the 2021-2022 Commonwealth Budget.

We believe our recommendation provides a practical and immediate opportunity to support Australia's trucking Industry and enhance the efficiency and safety of the freight and logistics industry.

If you require any additional information please feel to contact me.

A handwritten signature in blue ink, appearing to read "Paul McGlone".

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ⁱ Harper, Anderson, McCluskey, O'Bryan, March 2015, Competition Policy Review Final Report, 38

ⁱⁱ [Initial Report - Transitioning Regional Economies \(pc.gov.au\)](https://www.pc.gov.au/initial-report)

ⁱⁱⁱ 3 Australian Infrastructure Audit 2019

^{iv} [Microsoft Word - AAA ECON Cost of road trauma 2015 7Sep17](#)