

WhitePaper



# The 5 Biggest Headaches Fleet Managers Face And How to Deal with Them



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Fleet managers are problem solvers – one could even say that's the job. And while we enjoy a good challenge some things are just headaches – big and small. **So, what are a fleet manager's biggest headaches?**

With decades of experience out in the field, we at Mobileye have put together a list of what we've been told these biggest headaches are, and some "aspirin" – suggestions to alleviate the pain.



# Distracted Driving

It's not hard to imagine the situation – your driver is on the road when all of a sudden, they hear the buzz of an incoming message and they have to look down, just for a second, to see who's texting and maybe send a short reply... Congratulations, they're a distracted driver. For the professional driver, on the road all day long, the temptation to text or to fiddle with the radio must be even greater than for non-professional drivers. Data from [driving studies](#) suggested that 71% of truck crashes and 46% of near crashes involve, as a contributing factor, distraction from direct driving related activities. The Australian Naturalistic Driving Study observed 400 Vic & NSW drivers over two million kilometres and found that drivers were distracted for [45 percent of the time](#). [ABC Newcastle](#) reported that “in 2011, drivers distracted by something inside their cars were a contributing factor in 1,585 NSW crashes, compared with 748 in 2004”.

In America, [Virginia Tech Transportation Institute](#) found that truck drivers who texted while driving were 23 times more likely to either crash or nearly crash, the heavy load of these vehicles making every crash or near-crash that much more dangerous. Mobileye continually hears from fleet and safety managers that fighting these dangerous behaviours has become a number one priority.

## So, what can be done?

- 1. Lock it:** There is little doubt that the device "most likely to distract" is the cell phone. Much of our lives revolve around this little piece of hardware, making it hard to imagine going hours without looking at it. So, in the spirit of "out of sight, out of mind," encourage drivers to lock away their cell phones in the glove compartment. If you want to make sure this happens, there are even devices that won't allow the vehicle to start until the phone is locked away.



## Distracted to Death



Drivers of heavy vehicles are **23X** more likely to crash or near crash when **texting**



Drivers of heavy vehicles are **5.9X** more likely to crash or near crash when **dialing** a cell phone

[Source VTTI](#)



Drivers remain distracted for up to **27 seconds** after using a device

[Source AAA](#)



2. **Hands-off:** If that's a bit extreme, vehicles can be equipped with a handsfree device, allowing drivers to make calls with minimal distraction. However, these devices are less than a perfect solution. In a recent [study](#), the American Automobile Association (AAA) found that drivers can remain distracted for 27 seconds after making a call, even with a hands-free device, or after doing something as simple as changing radio stations.
3. **There's an app for that:** A number of [apps](#) have been developed to help stop distracted driving. In general, these apps prevent drivers from using their phone while in a moving vehicle, blocking calls and texts until the vehicle stops. There is one caveat however, these apps rely on the drivers' willingness to use them, which makes the following step even more important.
4. **Education:** Let's face it, no solution will work without the drivers' cooperation and the best way to work with drivers is to show them that distracted driving is bad for everyone. Nobody wants to get into a collision but how many drivers realize the danger of answering one text?
5. **Warning:** According to NHTSA, [almost 80% of collisions](#) occur due to some form of distracted driving during the three seconds beforehand. While nothing can substitute for an attentive driver, collision avoidance systems such as [Mobileye's](#) can play an important role in reducing these statistics. When Mobileye's sensors detect a dangerous situation ahead, they generate both audio and visual cues, pulling the driver's attention back to the road and warning the driver in time to prevent or mitigate a collision. Best of all, the Mobileye system does not rely on an unwilling or stressed driver's co-operation in giving up their cell phone, nor does it rely on the driver to activate the system. It's just there, undistracted, helping to protect the driver and those around them and complementing whatever other steps are taken to reduce both the phenomenon and the results of distracted driving. [Learn more](#) about how the Mobileye system works.

# Driver Retention

The chronic shortage and fast turnover of skilled truck drivers is one of the biggest challenges that fleet managers face across the globe and in Australia.

In a recent whitepaper published by [Volvo Group Australia and Clemenger BBDO](#), they found that 46% of survey respondents from the local trucking world are currently experiencing a driver shortage, 82% are having issues attracting quality drivers while 52% are having issues attracting the quantities of drivers needed. All this while demand for domestic freight carriers is expected to double by the year 2030.

This is a global trend — the American Trucking Associations (ATA) expected a shortage of at least 50,000 drivers by the end of 2017 and reported a shortage of more than 60,000 drivers at the end of 2018. This trend appears set to continue unless fleets can come up with better ways to attract and retain drivers.

"If things don't change, and we continue up this progression, by 2026 we will be at 170,000 drivers short. If we get there, not only is our industry in a world of hurt, our economy is in a world of hurt," ATA Chief Economist Bob Costello said at the [2018 Recruitment and Retention Conference](#).

To stem the tide, proactive fleets are [adopting driver reward](#) programs that motivate employees to improve their performance. Drivers who attain certain metrics, from the number of kilometers driven to safer driving behaviour, receive higher salaries, bonuses or benefits like additional vacation days.



## Driver Shortages in Australia



[Volvo Group Australia and Clemenger BBDO](#)





With the new Mobileye 8 Connect™ collision avoidance system, Mobileye can help companies monitor driver performance. The system records alerts triggered by dangerous behaviour such as:

1. Follows the vehicle ahead too closely
2. Is in danger of colliding with a vehicle ahead
3. Is in danger of colliding with a pedestrian or cyclist ahead
4. Makes an un-signalled deviation from its lane

By recording the number and type of alerts triggered by their fleet of vehicles, fleet managers can then analyse this data to determine who is driving safely – or at least more safely than their colleagues – and provide incentives and rewards as an employee retention tool. On the other hand, the system does not video-record the drivers, giving them a degree of privacy, diminishing privacy concerns.

In addition to these rewards programs, Mobileye's collision avoidance system helps retain drivers in a more obvious way: by preventing injuries from collisions. Local companies show that after installing Mobileye, drivers exhibit improved [driving habits](#) and [lower collision rates](#). A University of Missouri [study](#) showed that three weeks after installing collision avoidance systems, the number of lane departure warnings dropped by 43% and forward collision warnings by 57%, i.e. the drivers were adopting safer driving habits.

In the article ["5 Things to Expect in Trucking in 2019"](#), transportation executive Joseph Evangelist predicts that the driver shortage will continue, and that fleets will focus more on retention incentives.

"We will see more things like mileage bonuses, longevity bonuses, safety bonuses and other performance-based incentives rewarding different aspects of the driver's activity. These bonuses will boost driver pay in a different way than a simple cost-per-kilometer increase and will reward drivers for their efforts toward meeting goals," Evangelist says.

Mobileye's cutting-edge technology can help fleet managers retain their drivers and improve the safety of their fleet at the same time. To learn how much safer your fleet and drivers can be, contact a [Mobileye rep for more information](#).

# Busted Budgets

When DISH Network Corporation USA adopted the Mobileye collision avoidance system for its fleet in 2016, it looked forward to improving driver safety, decreasing vehicle downtime and lowering their exposure to liability claims. What it didn't expect was an increase in fuel savings – [reporting at least a 2% increase](#).

And with fuel making up 21% of the [average fleet's marginal cost](#), these savings can be significant. But how exactly does retrofitting your fleet with a collision avoidance system save fuel?

A major component of Mobileye's collision avoidance system is the [headway monitoring & warning](#) (HMW). The collision avoidance system constantly scans the road ahead, monitoring the distance, in seconds, between vehicles. When this distance become unsafe, HMW warns the driver.

Crucially, this alert activates before the driver is in danger, allowing them to take preventative action before the situation becomes critical and necessitates emergency action. For example, if a distracted driver gets too close to the vehicle ahead, they receive a warning that allows them to slow down as opposed to slamming on the brakes – one of the main culprits in added fuel consumption.

In fact, according to the US Department of Energy, [aggressive driving](#) – a category which includes, speeding, harsh braking and rapid acceleration – can decrease gas mileage by up to 40% in stop-and-go traffic. Gamma Technologies ran a [study](#) comparing two simulations – in one, a vehicle closely followed a lead vehicle while in the second a vehicle followed the lead vehicle at a safe distance. Engineers were surprised to find a 3% drop in fuel consumption simply by following at a safe distance.



## How to Save Fuel



Avoid aggressive driving (harsh braking, accelerating)



Fuel Economy Benefit  
**10-40%**



Stop speeding



Fuel Economy Benefit  
**7-14%**



Avoid carrying unnecessary weight



Fuel Economy Benefit  
**1% per 100 pounds**

[Source: US Department of Energy](#)



A further benefit of HMW is that as drivers gain experience using the technology, they actually improve their driving habits, anticipating the alerts and acting to prevent them. This means even fewer incidents of harsh braking, increasing fuel efficiency even more. Of course, these savings come on top of the other, myriad, benefits of collision avoidance systems—increased uptime for your fleet, decreased likelihood of legal liability and, most importantly, keeping your drivers safe.

[Learn more](#) about how you can implement Mobileye's collision avoidance system in your fleet.



"Aggressive driving can decrease fuel consumption per kilometer by **up to 40%** in stop-and-go traffic."



# Speeding Drivers

For many drivers, speeding is an automatic behaviour, rather than a conscience decision. Drivers usually don't realize how fast they are going until they have to suddenly slow down. They just want to get from point A to point B as quickly as possible, but fleet drivers who regularly speed can have a negative impact on your business.

## The Dangers of Speeding

Drivers seldom consider the safety risks when they're going over the speed limit until it's too late. "Speeding is one of the fatal five driving behaviours that cause the largest amount of road fatalities in Australia. Speeding is estimated to be a direct factor in around 30% of all road accidents in Australia", stated [Budget Direct Insurer](#). Even driving slightly above the speed limit can seriously increase the severity of a collision. In fact the Queensland government [speed fact sheet](#) states that "Around half of all serious speeding crashes happen at less than 10km/h above the speed limit..and [driving] just over 5km/h above the speed limit in urban areas (and 10km/h above in rural areas) is enough to double the risk of a casualty crash".

Higher speeds, of course, lead to more expenses and more serious injuries primarily due to:

- Speeding reduces the amount of reaction time that a driver has, making it harder to avoid a collision.
- It takes more time and distance for a speeding vehicle to come to a complete stop, so even if a driver applies the brake, the vehicle's momentum will carry it further for a few seconds longer.
- The force of a collision [increases exponentially](#) as speed increases, so there is a higher risk of injuries and death. As a vehicle gains speed, its kinetic energy also increases, meaning that the impact will be more severe. A collision that happens when a vehicle is going 80 km/h is four times as serious as a collision when the vehicle is moving at around 50 km/h.



## Speed Kills

"Speeding is estimated to be a direct factor in around 30% of all road accidents in Australia"

[Source: Budget Direct Insurer](#)

If you can ensure that your drivers observe the speed limit, you'll help them stay safe, avoid accidents, and save lives.

### The Financial Burden of Speeding in Fleets

There is a common misconception that speeding can save your fleet money by reducing travel time. But in reality, speeding is actually less cost effective because it can lead to an increase in operating costs. According to [Whichcar magazine](#), the 2016/2017 financial year was the most lucrative 12 month period in terms of revenue generated through speeding fines. In this period Australians paid a huge \$1.1 Billion AUD.

A vehicle run at high speeds is also more prone to wear and tear. Whether it's new brake pads, tires and engine transmissions, maintenance costs add up when a vehicle has to be taken off the road for repairs – in addition to the fleet being short one vehicle.

Fuel is one of the highest operating costs of running a fleet, so preventing speeding can benefit your bottom line. It's important to note that gas mileage drops steeply when vehicles exceed 85 km/h.

A [study](#) by the University of California at Berkeley found that "for every 1 percent increase in speed, a driver's chance of an accident increases by 2 percent." For your fleet, any collision can be expensive. From vehicle repair and maintenance, to an increase in insurance rates, the costs quickly accumulate. By managing your drivers' speed, you could lessen the severity and frequency of accidents, saving money and lives in the long run.

### How to Stop Speeding in Your Fleet

Driver education can certainly teach your fleet drivers about the dangers of speeding. But these programs may not go far enough and their lessons may soon be lost once your fleet drivers leave the

classroom. If these educational classes fail to change their driving habits, it is time to take further action.

A speed limit indicator (SLI) is an innovative preventative measure to help keep drivers aware of speed limits while on the road. The system identifies speed limit signs along the route and issues an indication whenever the vehicle exceeds the posted speed limit. In Mobileye's collision avoidance system, the current [speed limit is displayed](#) on the Eyewatch™ to remind drivers in case they lose track of this limit.

Whether the driver is intentionally or unintentionally speeding, or didn't realize that the speed limit had suddenly changed, having a speed limit indicator in your fleet's vehicles can remind your driver to take corrective action and stay within legal limits.

"In the 2016/2017 financial year  
Australians paid **1.1 Billion AUD**  
in speeding fines"

[Source: Whichcar magazine.](#)

# Urban Driving

Managing a fleet in an urban environment involves navigating your drivers around bumper to bumper traffic and other inconveniences, making it, in some ways, as dangerous as a highway environment. According to the [Bureau of Infrastructure, Transport and Regional Economics](#), in 2016 48% of fatal crashes took place in urban areas.

These vulnerable cyclists, have little or no protection during a collision making the danger that much greater. So how can you help your drivers safely navigate these urban hazards?

- 1. Provide a good GPS** – Imagine all the dangerous situations drivers can find themselves in simply by not knowing where they are going. Everything from harsh braking when you're not prepared for a turn to accidentally turning down a one-way street. All these can be reduced by a good GPS system, not to mention the benefit of allowing drivers to concentrate on the road and not the navigation.
- 2. Weather preparation** – Of course, weather affects driving everywhere, but in urban areas there are many more obstacles - pedestrians, cyclists, delivery trucks etc. This makes preparing for bad weather even more important. Windshield wipers and tires become vitally important at these times, so put effort into checking that they are up to standard. In addition, make sure windshield wiper reservoirs are full in case drivers need to clean off their windshields. Bad weather can also increase your stopping distance. Here, a good collision avoidance and blind spot detection system (see 4 and 5 below) can also help drivers keep safe.
- 3. Avoid tiring your drivers** – We typically associate collisions due to fatigue with long highway drives, but urban driving is also severely affected by fatigue. A Swedish [study](#) of city bus drivers published in 2016, showed 19%







of city bus drivers had to fight to stay awake, while driving, two or three times a week and nearly half of these drivers had to fight off sleepiness anywhere from two to four times a month. This fatigue makes dealing with blind spot detection (see 4 below) even more difficult.

- 4. Blind spot detection training** – Large vehicles, such as city buses, means larger blind spots and it is critical for drivers to be properly trained to deal with them. This is especially important for buses traveling city streets. Quite frequently cyclists will pass buses on the right, directly through the bus's blind spot. Left turns also create a hazardous situation when the A-pillar on city buses creates a blind spot that can easily hide pedestrians until it's too late.
- 5. Install a collision avoidance system** – A proper collision avoidance system such as Mobileye Shield+™ can help with many of these issues. The system offers five safety features, among them urban forward collision warning, specially designed to prevent or mitigate collisions in slower, crowded, urban traffic. Both visual and audio warnings are designed to grab drivers' attention in those vital few seconds before a collision can occur. Perhaps most critically, the pedestrian detection system built into Mobileye Shield+™ constantly monitors a vehicle's blind spots and the road ahead, not only signalling to drivers when pedestrians or cyclists enter these dangerous areas but also intelligent enough to ignore inanimate objects, avoiding false alarms.

During a pilot [study](#) conducted by the Washington State Transit Insurance Pool none of the buses equipped with Mobileye Shield+™ were involved in a pedestrian or bicyclist collision - as compared to 284 events experienced by non-equipped buses. Not only that, but the drivers of Mobileye Shield+™-equipped buses displayed noticeably improved driving habits.

For more information on blind spot detection and protecting pedestrians check out the Mobileye Shield+™ [system](#) for yourself.

# About Mobileye

Mobileye, an Intel Company, is a global leader in the development of computer vision and machine learning, data analysis, localization, and mapping technologies for Advanced Driver Assistance Systems and autonomous driving solutions.

Our safety technology is integrated into hundreds of new car models from the world's major automakers: BMW, Audi, Volkswagen, Nissan, Ford, Honda, General Motors and more.

The Mobileye Collision Avoidance System is available with a single, forward-facing vision sensor suitable for almost any vehicle, or in a multi-sensor solution designed specifically for large commercial vehicles with hazardous blind spots.



100+ distributors  
around the world



40+ million vehicles use  
Mobileye technology



International Fleet Industry  
Award 2011 & 2013

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## Learn More

For more information on blind spot detection and protecting pedestrians, please [contact us](#).