DriverMetrics®

# Maximising the Safety Benefits of Telematics

# Introduction

According to Lex Autolease[1], over 17% of UK businesses are now using telematics systems. Telematics can help achieve a number of business benefits, including reducing fuel consumption, asset tracking and ensuring timely vehicle maintenance. However, it is often claimed that telematics can deliver improvements in driver safety and reduce the human, financial and legal costs of crashes.

The problem is that businesses are finding that these systems are simply not delivering the full range of driver safety benefits anticipated. Indeed, despite the massive investment in in-vehicle technologies over the past decade, the road safety casualty figures in the UK remain stagnant[2].

This guide explains how you can maximise the benefits of telematics for driver safety by integrating it with DriverMetrics® scientifically validated driver profiling and behavioural change interventions.

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[1] Lex Autolease Motoring Report, 2018
[2] www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2017

# What is Telematics?


Telematics is a combination of hardware that is installed within the vehicle and telecommunications capabilities to share data in real time or at predetermined intervals. The data can be accessed and analysed via a web browser or an app. There are many different telematics systems available but all are capable of recording: longitudinal and lateral movements (braking, acceleration and steering), engine parameters (e.g. rpm), fuel consumption, GPS positioning and speed, as well as a summary reporting function to feedback to the driver on journeys undertaken.

Some systems video the immediate traffic environment as well as inside the vehicle, to provide details surrounding what triggered an event. Telematics systems can also monitor seatbelt non-compliance, inattention, distraction and fatigue and even whether a driver is using a mobile phone.

Telematics use custom algorithms to determine whether or not a critical event has occurred or calculate driver scores over each journey. These algorithms take many forms. However, they are often not based on peer-reviewed research supporting their validity. Most systems monitor proxies for driver safety in which scores or events are associated with crash involvement via some aspect of the behaviour being monitored.

## Driver Behaviour and Risk

> Whilst there are a range of contributory factors in any crash, the critical factor remains the behaviour of individual drivers.

The scientific literature demonstrates a wide range of empirical evidence to show that the main contributor to crashes is the driver – with human factors contributing to over 90% of incidents. Understanding driver behaviour and how to influence what drivers do is therefore a key component for reducing the risk of crash involvement for your workforce.

## Limitations of Telematics

Telematics systems claim to reduce risk by focusing on changing the behaviour of drivers to improve safety. Let's look at how they typically claim to do this.

**Firstly, it is argued that the very fact that drivers are being monitored by a telematics system has a positive impact on their behaviour behind the wheel.**

However, client feedback and research indicates that following an initial impact on behaviour, telematics systems fail to change the most significant and enduring high risk behaviours, as drivers become habituated to the system. Furthermore, there is an increasing evidence base suggesting that in-vehicle feedback represents a dangerous distraction for drivers.

**Secondly, telematics data on speed, harsh braking and acceleration is used to identify higher risk drivers in order that interventions can be delivered to change their behaviours and reduce risk.** However, whilst this data offers a high level indication of which drivers have the highest risk of a crash, it cannot tell you what specific behavioural motivation is causing each telematics violation. In short, telematics data can tell you something about what your drivers are doing on the road, it cannot tell you why they are doing it.

Let's take the example of a driver whose telematics data records consistent speeding violations. Research shows that there are many possible motives that may be causing different drivers to use excessive speed, including work-related stress, thrill seeking tendencies and frustrations behind the wheel. However, by simply intervening based on the raw telematics data without an understanding of these specific underlying motives, fleet managers will fail to address the core issue. By considering these motives in conjunction with telematics data a sustained driver behaviour change at an individual level can be seen.

Thankfully, there is a scientifically proven two stage methodology to both identify the behavioural motivations underlying telematics data and achieve long term behaviour change.

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# 1 Identify Behavioural Motivations

The first step is to supplement your telematics data with a precise measure of the underlying behaviours causing the risks. DriverMetrics® Profiling is the most extensively validated measure of behavioural risk available. Based on decades of scientific research, this online assessment accurately identifies the specific behavioural risk factors for each driver. The risk factors measured differ according to driver type (fleet, bus, truck etc.), but include core factors of aggression, thrill seeking, hazard monitoring and fatigue.

On completion, the driver receives a detailed report that both facilitates self-reflection on their driving style and provides managers with an invaluable insight into the behavioural motivations underlying the high risk behaviours evident in the telematics data. By combining your telematics data with DriverMetrics® Profiling you will have the full picture of your driver risks and can move onto making changes.

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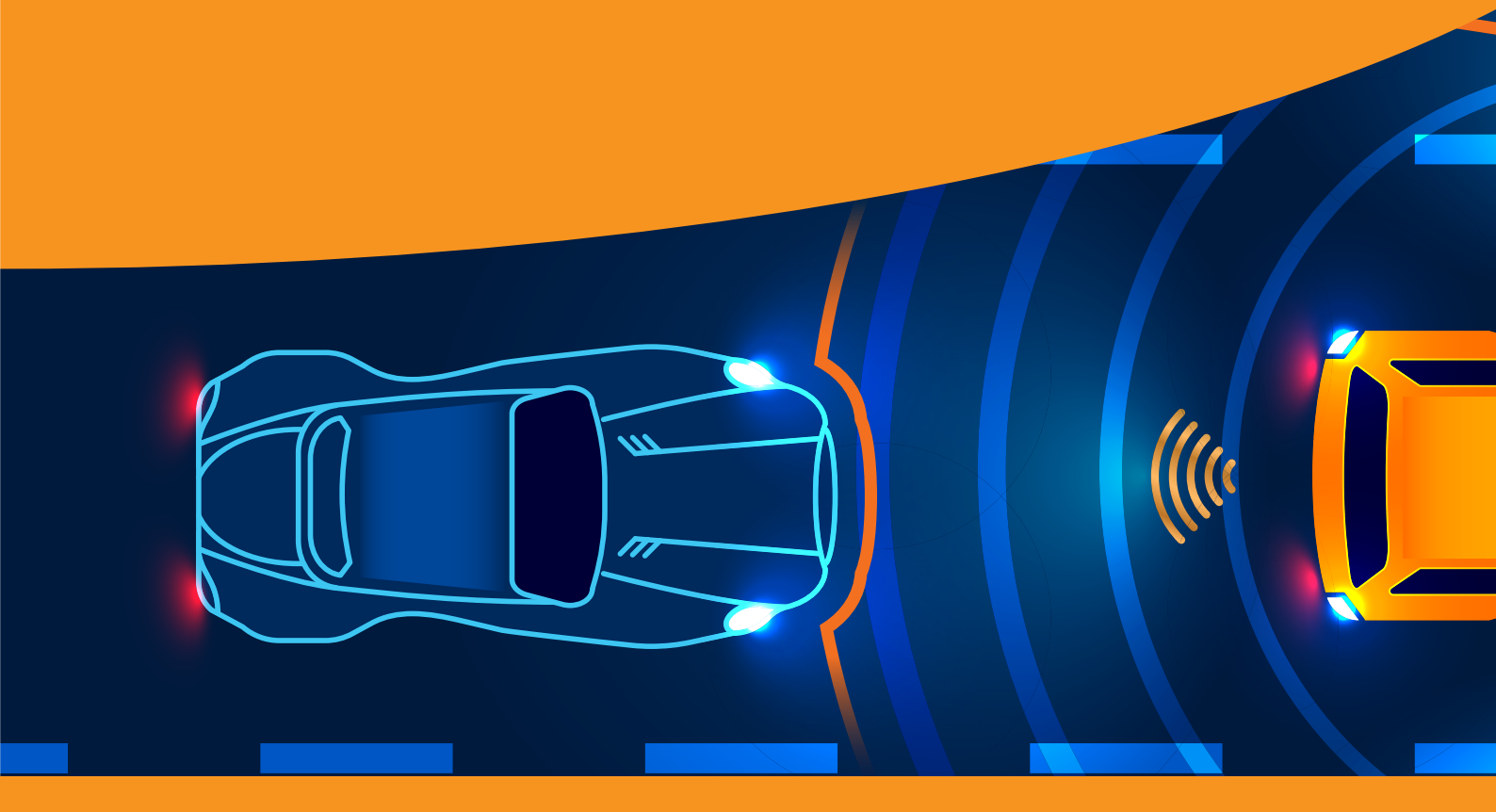
# 2 Implement Targeted Interventions

You will now be in possession of a powerful combination of telematics and an understanding of the motives contributing to an individual's driving style. This will enable you to move beyond making assumptions about a driver's speeding motives for example, towards the delivery of precision targeted interventions.

Because it is driver behaviour in response to work related demands that need to change, these interventions do not need to focus on skills acquisition. Fleet drivers are often sufficiently skilled to drive safely but choose not to due to work demands and personal characteristics. Instead, we need to coach drivers to influence their motives and behaviours behind the wheel when driving for work. At DriverMetrics® we recommend one or more of the following approaches to changing high risk behaviours.



## eLearning

DriverMetrics® eLearning modules are specifically focused on high risk driver behaviours that underlie telematics violations as identified in DriverMetrics® Profiling. The modules are automatically allocated on completion of DriverMetrics® Profiling and are our most popular method of changing high risk driver behaviours as part of a fleet risk management programme.

## Insight into Action Workshops

DriverMetrics® behavioural workshops utilise the group dynamic to influence driver behaviours identified in telematics data and DriverMetrics® Profile reports. Tailored to your fleet type, size, location and number of drivers, they are typically held at your offices.

## Driver Coaching

Our individualised coaching is delivered in vehicle, providing your drivers with targeted, one to one coaching that's based on each driver's telematics data and DriverMetrics® Profiling reports.

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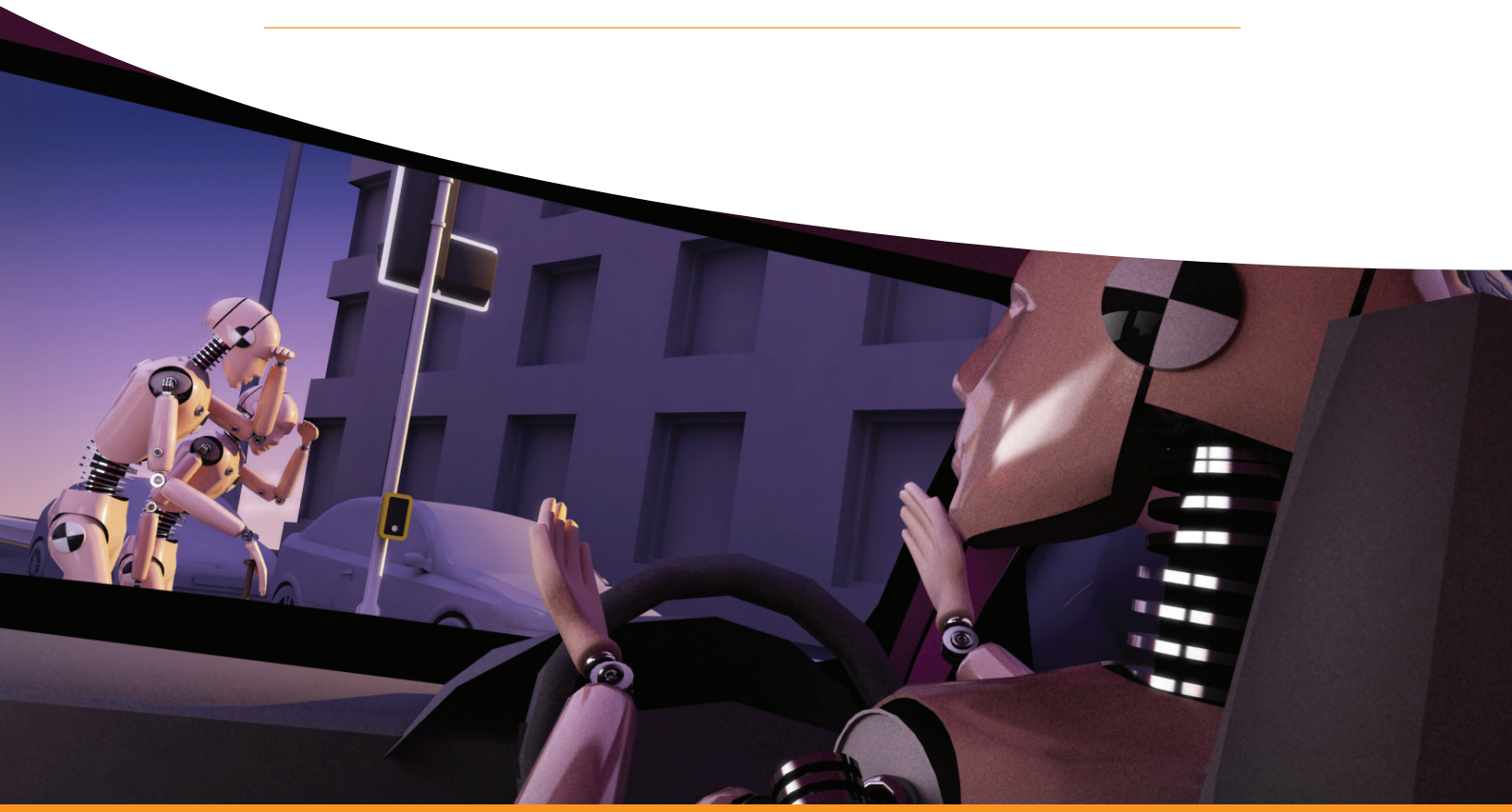

# TELEMATICS

## WHAT?

Symptoms




HARSH BRAKING

HARSH BRAKING

HARSH BRAKING

# DRIVERMETRICS®

## WHY?

Diagnosis

WEAK HAZARD PERCEPTION

PRONE TO AGGRESSION

PRONE TO FATIGUE

## WHAT NOW?

Automated Treatment

HAZARD MONITORING MODULE

AGGRESSION eLEARNING

FATIGUE eLEARNING



## In Summary

Telematics provides valuable data to help fleets improve driver safety and reduce risk. However, used on its own, telematics data provides a very limited insight into the underlying behaviours and motives causing risk for your drivers. However, by combining telematics data with DriverMetrics® Profiling you can gain a detailed and powerful insight into the specific risk factors faced by individual drivers. This combined data set can then be used to implement highly targeted interventions - including eLearning, workshops or one to one coaching - to change high risk driver behaviours over the long term.

## Contact Us

For a no-obligation discussion around improving your telematics implementation, please contact us:

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# Reduce work related crashes with DriverMetrics® multi-award winning driver safety programme.

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Winners

DriverMetrics® works with leading global fleets - including Shell, Unilever and Greyhound Bus - to identify and change high risk driver behaviours. Our programme is complimentary to telematics, enabling you to pinpoint the specific attitudes and behaviours underlying telematics data and delivering driver interventions to reduce risk.

- Build your strategy on DriverMetrics® Profiling - a risk assessment based on 30 years of extensive, peer reviewed academic research.
- Implement a global solution with DriverMetrics® global benchmarking and language translations.
- Target your driver population with tailored content for Fleet, Grey Fleet, Bus, Truck, Tram, Police, Fire and Ambulance drivers.
- Change High Risk Behaviours with targeted eLearning, workshops and driver coaching.

*"DriverMetrics® Profiling is a key element of our global Defensive Driver Training programme."*
Shell

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