AA

NAVIGATING
THE FUTURE

How data and connectivity can help provide certainty for businesses and their drivers.

FOREWORD

We're living in a transformative time when it comes to driving for business, with a multitude of factors reshaping the landscape.

We've got policy developments, at both national and local levels, which are creating a new regulatory environment that's increasingly focused on urban versus rural transport priorities, decarbonisation goals, air quality and shared infrastructure with pedestrians, cyclists and other transport modes. As government strives to balance these interests, businesses must navigate a complex web of regulations, compliance and incentives designed to promote sustainable and future-proof transportation solutions, whilst delivering against their own organisational goals. The geopolitical landscape also plays a crucial role in this transformation. In a world where supply chains can be increasingly susceptible to disruptions, as we saw with recent parts and semiconductor shortages, the resilience of these networks has never been more critical.

Then there's climate change, with its accompanying extreme weather events, which further amplifies the need for urgent action. Businesses need to be prepared for a range of scenarios to keep everything moving.

Equally important is the evolving landscape of skills and knowledge. As the industry embraces new technologies and navigates shifting regulations, there's an increasing need for expertise that keeps pace with these advancements. Training and development are crucial to ensure that the workforce can meet the demands of an ever-evolving sector, but the reality is we're facing vital skills shortages, especially in the availability of technicians to deal with Advanced Driver Assistance Systems (ADAS) and EVs, according to The Institute of the Motor Industry (IMI).

This disruption is felt within the Service, Maintenance, and Repair (SMR) sector and adds another layer of complexity for businesses that rely on efficient vehicle movements. As vehicles become more sophisticated and connected, it brings with it a re-evaluation of how these services are delivered and managed.

Finally, cost constraints are another significant factor influencing the transport sector's trajectory. Investments in infrastructure, from repairing potholes to expanding EV charging networks, are essential for supporting the transition to more sustainable modes of transport. Balancing these financial pressures with the need for innovation presents a formidable challenge for stakeholders across the board.

Each and every one of these factors is playing its part in redefining the future of mobility and it's by no means an exhaustive list!

We know that businesses and drivers want certainty, particularly in disrupted times and this can be challenging when the only constant is change. Against this backdrop, technology has the potential to give you back control. So, in this Yellow Paper we examine the critical risk factors that can impact on businesses and their fleets and the role that connected technologies and data can play in smoothing the way forward. Ultimately, technology and connectivity have an increasingly important role to play in driving up productivity and performance, driving down costs, and minimising risk. At The AA, we're always by your side and 'Always Ahead', whatever the future may hold.

Edmund V King OBE
AA President

A FAST-CHANGING MOBILITY LANDSCAPE

British fleets and businesses account for the majority of new vehicle registrations (SMMT), made up of company cars, LCVs, HGVs, and grey fleet. At The AA alone, we provide services for 13m B2B drivers.

Fleets are leading the way when it comes to the transition to EVs, yet ICE vehicles still make up a large proportion of vehicles used for business purposes. Today, we're seeing many businesses extend their leases and hold on to vehicles longer as they wait for policies, legislation, and regulations to inform their next steps. A recent report by the ACEA, 'Vehicles on European roads' highlighted that there's now around 290 million vehicles on EU roads and the average age of all vehicle types is rising. Cars in the EU are now an average of 12.3 years old and since 2018, the average age of all vehicle types has risen by around one year. This is echoed with UK and van specific data from Direct Line,

which found that in 2023 the average age of LCVs was at an all-time high at 8.9 years, compared to 7.7 in 2012 – a 15.6 per cent increase in 10 years.

But businesses don't have to wait to make savings and increase the efficiency of their fleets. While the increase in cost and lead times for repairs and maintenance is significant, there's an untapped resource in vehicles made after 2019 that can deliver benefits today – and that's connected technology. The European Data Act 2025 is set to bring even more focus on the potential of the data in our vehicles to eliminate waste, drive efficiency and improve the performance of all vehicles including those driven for business. It's an exciting time, full of opportunities to increase efficiency if we're open to embracing them.

SMR – KEEPING YOUR BUSINESS MOVING

Vehicles make up a significant resource for many businesses. Moving people and goods to be in the right place at the right time is business critical.

Having vehicles out of action, people stuck or products undelivered, not only impacts on costs and performance, but on reputation too. Effective and efficient service, maintenance and repair is therefore critical to any business running a fleet but it's not without its challenges against today's landscape. Meeting these challenges head on and utilising the growing benefits of data and technology is critical.

The disrupted skills landscape

As the automotive industry undergoes a transformative shift, driven by technological advancements, evolving consumer expectations, and increasing regulatory demands, central to this disruption is the skills landscape within the Service, Maintenance, and Repair (SMR) sector. It's no wonder that the sector is having to work hard to keep pace with this rapid change.

A significant challenge to those operating in SMR is dealing with the skills gap. The Institute of the Motor Industry (IMI) reported 26,000 roles unfilled in the industry and predicts a shortfall of 131,000 by 2031. As automotive technology advances,

such as electric drivetrains, autonomous systems, and the rise of connectivity, it requires a new set of skills that many current technicians and repair professionals don't have.

The gap between the current skillset of the workforce and the evolving requirements of these technologies is a significant challenge for many SMR organisations. As well as training providers and educational institutions which have struggled to adapt their curriculum and training facilities quickly enough to keep up with the pace of change. Alongside this, there's the financial burden for SMR businesses of investment in training at the pace required.

The SMR industry also continues to face talent recruitment and retention issues, which is exacerbating the skills gap, making it increasingly challenging for fleets to maintain and repair their vehicles efficiently.

In a relatively short space of time, the role of an SMR professional has moved beyond traditional mechanical skills alone. Going forward there needs to be a proficiency in software and data analytics

and enhanced customer service skills as demand on providers grows to offer personalised solutions. Continuous education must now include regulatory changes, specialised tools and equipment, data and software and secure data practices.

With attracting and retaining talent, ongoing skills development, and the raft of regulatory changes to contend with, it's easy to see why the SMR sector is facing challenges. While the sector works hard to navigate these changes, fleets need to be aware of the reality of the situation and plan accordingly to minimise VOR, reduce costs and keep businesses moving.

The IMI has already identified the role that technology can play in helping bridge the skills gap in workshops, as well as the potential for remote technologies to assist in the diagnosis of faults.

Companies, including The AA, have been examining the potential of data to enable businesses to better understand and manage not just their fleets but their drivers too.

THE FUTURE
OF DATA AND
CONNECTED
VEHICLES
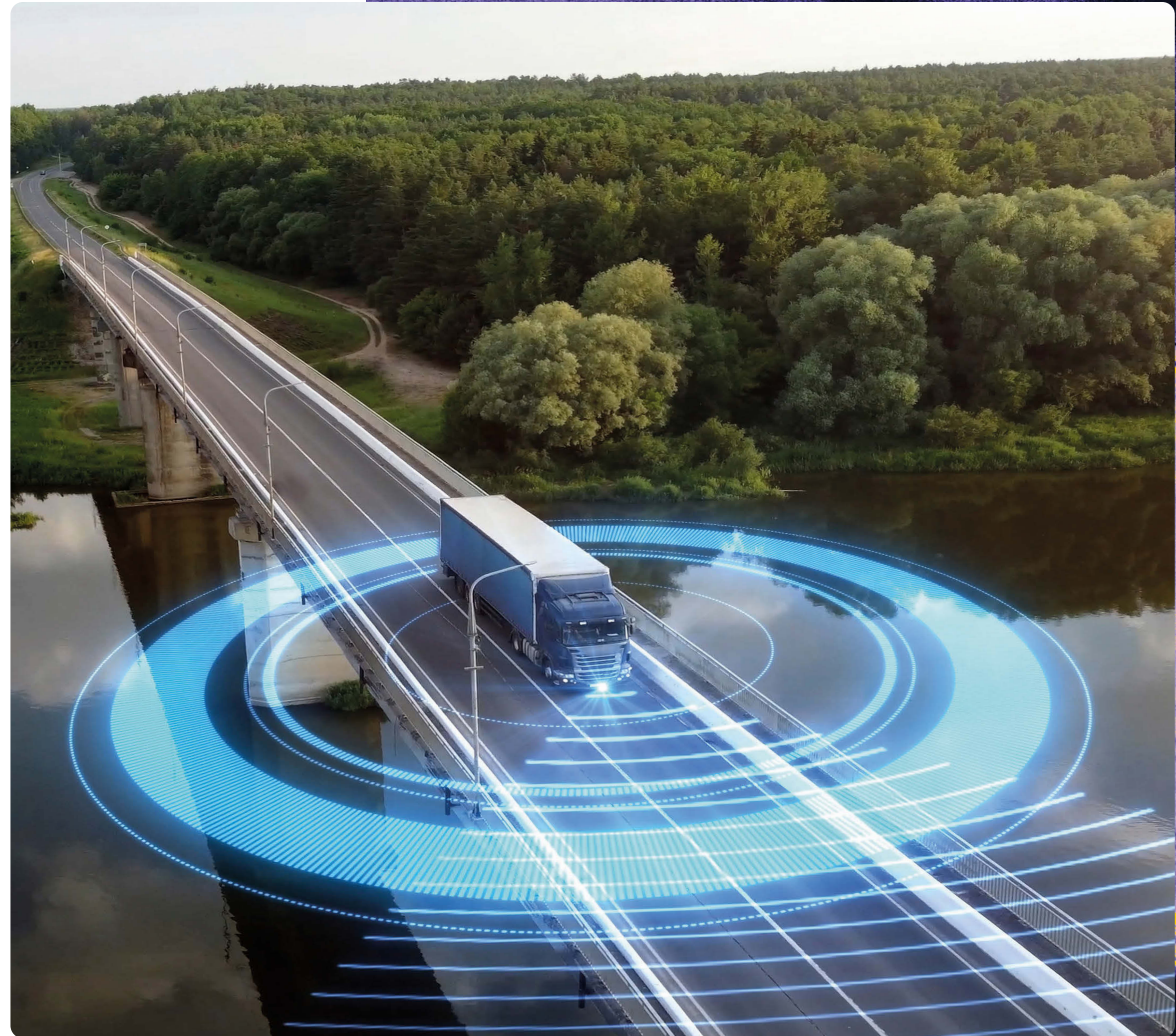
The future of data and connected vehicles

Regulatory factors

The European Data Act 2025, set to come into force in September, represents a significant development in data governance, with profound implications for various sectors, including the automotive industry. As vehicles become increasingly sophisticated, leveraging data to enhance performance, safety, and user experience, the regulatory framework surrounding data usage and ownership must evolve.

One of the key aims of The European Data Act 2025, is to create a more open and competitive data economy within the European Union. Under the act, vehicle owners and operators will have greater access to their vehicle-generated data. This can include diagnostic information, performance metrics, and driving patterns. The act also requires vehicle manufacturers to make data available to third parties, which could include SMR organisations, insurance companies, and data analytics firms. While this can lead to enhanced service offerings, that are more personalised and proactive, it will require robust systems for data sharing. The potential ahead of us for innovation, increased transparency, competition, and technological advancement to improve fleet efficiencies further is hugely exciting.

The future of data and connected vehicles

Digital roads and connected cars

As well as vehicle technology developing at pace, the government has been investing in innovation that will connect with vehicles on our national highways. The Digital Roads programme will harness data, technology, and connectivity to improve the way the Strategic Road Network (SRN) is designed, built, operated, and used. This will enable safer journeys, faster delivery, and an enhanced customer experience for all.

Nick Harris, Chief Executive, National Highways, said of the programme:

"We are at the beginning of a digital revolution in roads infrastructure and expect to see more change in the next decade than we have in the last century. This provides an opportunity to make our roads safer, improve customer experience for all, and support our plans for net zero."

More broadly, we'll see continued investment from authorities in vehicle-to-infrastructure (V2I) communication – technologies that enable vehicles to communicate with road infrastructure – and dedicated connected vehicle networks. These are high-speed communication networks to support vehicle-to-everything (V2X) interactions, including vehicle-to-vehicle (V2V) and vehicle-to-cloud (V2C) communications.

The integration of digital roads and connected cars is likely to have significant implications for road taxation and pricing. We may see usage-based road pricing, a system that charges drivers based on their road usage and dynamic pricing models, which use real-time data to adjust pricing based on current traffic conditions. Taxation may become more individual and supportive of a more sustainable transport system.

Looking ahead, we're likely to see governments manage journeys more effectively, which has potential to make our roads safer. As well as positive safety implications, for businesses this also represents opportunities to harness connected data and use it in real-time to improve things such as route planning. By leveraging this data, businesses can enhance operational efficiency, reduce costs, and deliver improved services to their customers.

The future of data and connected vehicles

Technology today

When we talk about data and connectivity, we're not just looking ahead. Today, connected vehicle technology is revolutionising fleet management by offering a range of data and tools that help businesses optimise operations, reduce costs, and enhance vehicle performance. One of these tools is diagnostic monitoring, these systems can remotely monitor vehicle health, including engine performance and fault codes. Early detection of potential issues helps in scheduling maintenance before problems escalate. Another technology is telematics. Telematics systems provide real-time GPS tracking of vehicles. This allows businesses to monitor vehicle locations, route efficiency, and driver behaviour, improving logistics and operational planning.

The view from Geotab

In today's competitive business landscape, telematics has become imperative for fleet optimisation, enabling organisations to address concerns such as fleet efficiency, emissions reduction, and road safety.

The largest fleets in the UK, Europe and beyond are now using technology to drive actionable insights from their fleets for transformational use cases. Geotab customers now take advantage of Geotab Ace, our AI powered assistant to access these insights quickly. This assistant can answer questions about your fleet e.g., "compare fleet idling YTD" or "show me which vehicles are candidates for switching to EV".

Telematics has emerged as a powerful tool for fleet optimisation, enabling organisations to transform their operations, reduce costs, and contribute to a cleaner and safer transportation ecosystem.

Geotab is a leading telematics provider, offering advanced solutions that empower fleet managers to make data-driven decisions and optimise operations.

Then there's fleet management software, fuel management systems, vehicle-to-everything (V2X) communication including traffic alerts, specific EV charging management tools and more.

HALO.
INSIGHTS

One of these management tools is HALO Insights, the revolutionary fleet data aggregation tool from Drivetech. The platform ingests data feeds including telematics, fuel consumption, accident management, insurance data, and fleet costs, the result is an immediate and clear picture of fleet performance, allowing for quick identification and resolution of potential issues. The HALO Insights platform is built around three core pillars: safety, sustainability, and cost efficiency. It proactively addresses driver safety by delivering real-time, individualised training interventions directly to drivers – these timely 'nudge' interventions help correct behaviours as they happen, fostering safer driving habits and reducing the risk of accidents.

The future of data and connected vehicles

Technology today

When it comes to in vehicle technology, Advanced Driver Assistance Systems (ADAS) are increasing. These use a range of technologies, such as sensors and cameras, to identify risk and autonomously take action when needed. It includes lane keep assist (LKA), autonomous emergency braking (AEB) and intelligent speed assistance (ISA).

ADAS is an area of rapid evolution and we'll see its prevalence grow. For example, Pedestrian Detection Systems (PDS), which uses sensors to recognise pedestrians, could become more frequently used.

As already mentioned, another area which is seeing rapid growth is intelligent infrastructure and vehicle connectivity. Through vehicle-to-everything (V2X) technology, vehicles can exchange real-time data regarding road conditions, traffic patterns, and potential hazards. Then there's behavioural monitoring. Driver Monitoring Systems (DMS) utilise biometric sensors, eye-tracking technology, and machine learning algorithms to assess driver attentiveness, alertness, and compliance with safe driving practices. By providing real-time feedback and intervention when deviations from safe driving behaviour are detected, these systems help mitigate the impact of human factors such as fatigue, distraction, and impaired judgment.

By leveraging these connected vehicle technologies and tools, businesses can significantly improve their fleet management practices, enhance operational efficiency, and reduce costs. Not to mention increase safety. The recent Fleet Digitisation Report 2024 from Webfleet highlighted that 49% of fleet managers said enhancing driver and vehicle safety is the top reason for investing in more digital solutions.

As we move forward, the integration of real-time data and advanced analytics will continue to empower fleet managers to make informed decisions that keep their fleets on the road and performing at their best.

The future of data and connected vehicles

The AA solution transforming fleet management

At The AA, innovation is at our core and we recently released our latest solution for reducing asset risk for your fleet. The real power of our vehicle health solution is in predicting and avoiding vehicle off road (VOR) time to keep your business moving. We know that for an average delivery fleet, the cost per hour to the business for downtime could be as much as £600-£800, so it's vital to take action to avoid this.

Our tool is proactive fleet management at its finest, designed to keep your drivers on the road and protect your profit. It's the product of 117 years of The AA's experience as the UK's most trusted auto steward and the advanced automotive analytics and data we have amassed. We've combined vehicle data with proprietary and other data sources, connecting to a vehicle via telematics or OEM data and monitoring it in real-time. We then harness AI and the expertise of The AA to alert you at the first sign of trouble. This might be what's going on with the vehicle's engine, battery, tyres or more. It then puts the power in your hands to proactively solve the issue, before it becomes one.

The AA's vehicle health solution utilises advanced monitoring technology from Trakm8. Nick Guise, Head of Marketing at Trakm8, said:

"Vehicle health monitoring not only improves safety and convenience for drivers but also supports efficient vehicle management, reducing repair costs, minimising downtime, and extending vehicle life. This technology will be a significant part of the future for both drivers and businesses, as it continues to evolve and become even more integral to day-to-day operations. It results in lower total cost of ownership, keeps vehicles on the road longer, and ultimately benefits both drivers and businesses by ensuring smarter, more sustainable vehicle management."

To find out more, contact dan.main@theaa.com

The future of data and connected vehicles

Putting human factors in the spotlight

Data, connectivity, and technology more broadly are important tools to support employers and drivers with improved performance and safety but they're also central to enhancing wellbeing and improving driver confidence, all of which contribute to increased safety on the roads. The importance of improving safety levels is evident in the statistics. In the UK, someone is killed or seriously injured on UK roads every 16 minutes (Department for Transport). We cannot allow this to continue. For businesses, driving can be one of the most dangerous activities that your employees will do. Around a third of road deaths involve someone driving for work (UCL and Agilysis). It's therefore imperative we don't overlook the human factors and use technology to help mitigate these. Driver monitoring systems and telematics offer useful insight into driver behaviour patterns, which can then highlight areas of risk and help you identify the best way to respond to these patterns for individual drivers.

Driver training is then an in important tool in empowering drivers with the knowledge they need to feel confident behind the wheel, particularly when transitioning to a new vehicle type, be that an LCV from a car or a petrol or diesel to an EV. Ongoing monitoring of risk is then key. Alongside telematics data, tools like Drivetech's **PULSE Light**, the fleet risk health check, allow you to identify areas of risk. It's a comprehensive and actionable fleet risk health check for your business covering policies, drivers, vehicles, and journeys.

PULSE Light is a free online survey which highlights good practice and areas for action – in particular, where there are indications that you're not conforming to legal requirements. It can help kickstart a new focus on driver risk management in your business or re-start an existing programme that might need checking and re-calibrating to improve momentum and drive new actions.

You can find out more in our Yellow Paper 'Our driving future: Making human factors more predictable' available here
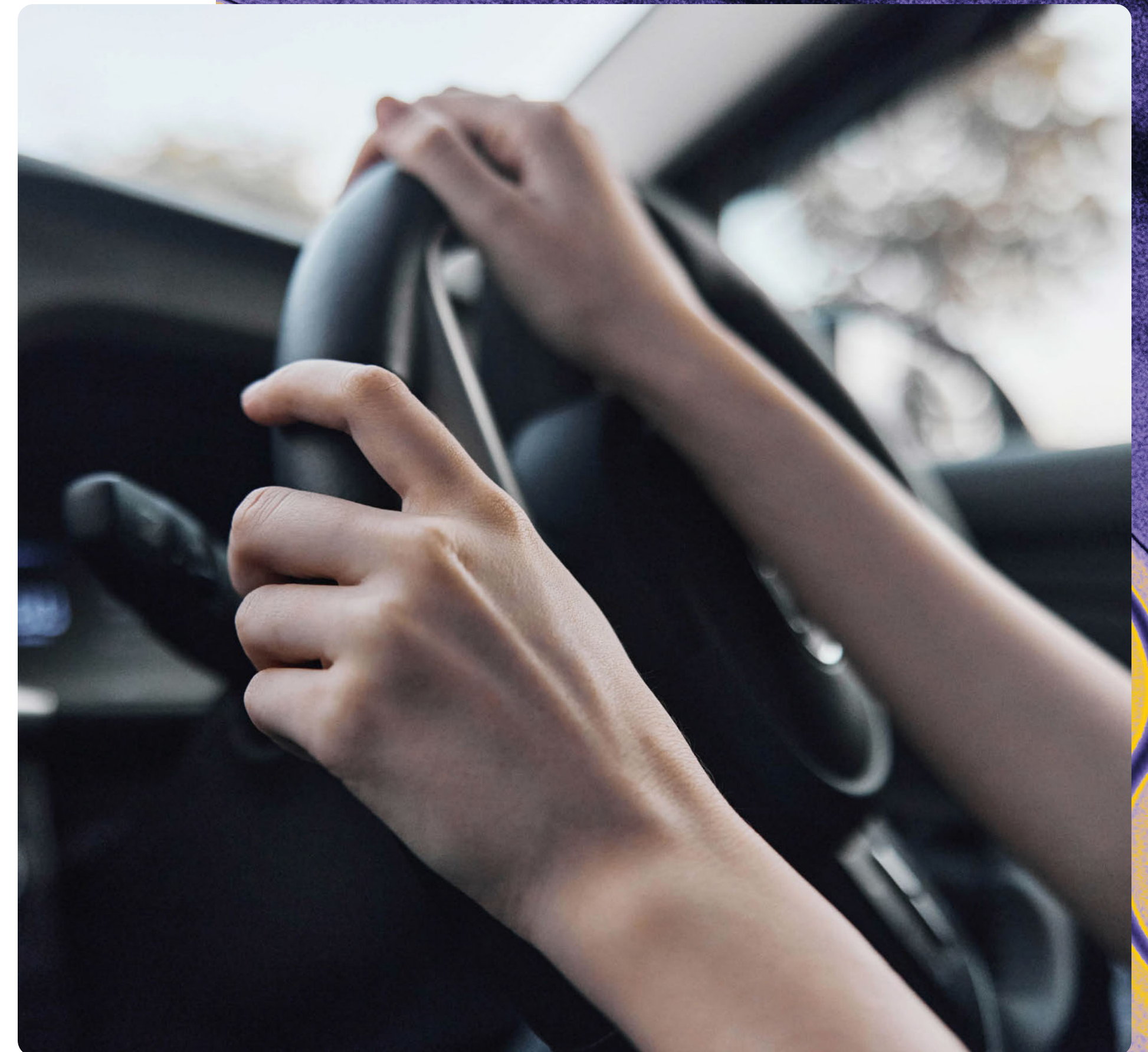
The possibilities, opportunities, and certainty that data and connected vehicles present are endless – and we're experiencing this firsthand at The AA as we embark on our own journey to maximise the use of data from our own fleet.

Throughout this area of evolution, when it comes to the future of mobility, AA Business Services remains at the forefront of change. We're proudly 'Always Ahead' and today our support for drivers and fleets goes far beyond the roadside. We understand the whole mobility ecosystem and how this impacts on businesses and this position enables us to continue to add value to our customers large and small. We understand the commercial imperative of having a fleet that works as hard as its people.

Collaboration, partnership, and investment underpin our continued commitment to fleets. And this is demonstrated with our latest asset risk management innovation, we're helping businesses pre-empt potential disruption with predictive modelling.

Collaboration with technology specialists has enabled us to empower businesses through the power of connected technology. Dedicated technology that gives them the tailored information they need to better manage asset risk when it comes to their vehicle fleets, such as by helping them to identity and tackle potential issues before they lead to unplanned and costly vehicle off road (VOR) time.

From lobbying government, to finding bespoke solutions for our business partners, to being at the forefront of EV initiatives, such as pioneering a test and scale fleet of our own, to operating a market leading EV charge point support service, we are partners, influencers and an award winning trusted and expert ally on the journey ahead. We're with you every step of the journey.

James Starling
Director of AA Business Services