Neckermann
Strategic Advisors

# Automate and Drive –
For Productivity and Profit

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RIDECELL

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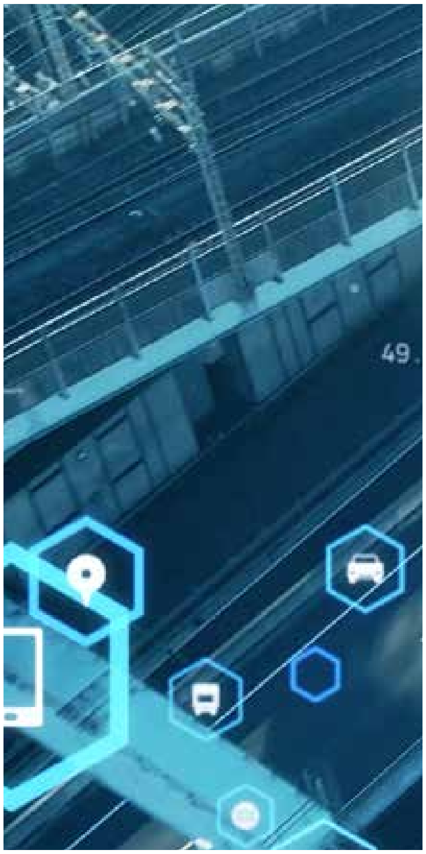
## INTRODUCTION

**The next profound transformation in fleet management is already underway.**

Fleet managers are already familiar with a wider set of responsibilities that come from many new modes of mobility – e-bikes, e-scooters, ridehailing and carsharing. Some have gained responsibility for travel and more. But the core function of fleet management is evolving at least as quickly as the world of mobility around it.

Throughout the last decade, connectivity and digitization have helped make a fleet manager's role more efficient and effective. The next logical step – **intelligent automation** – now helps the bottom line of the business itself.

## A RECAP: FIRST CAME CONNECTIVITY AND DIGITIZATION




**Connectivity was a first step toward leveraging technology within the fleet management profession.** Remote diagnostics was a game-changer – reducing downtime, enhancing safety, and enabling the fleet manager to operate more efficiently. It also enabled managers to remotely track vehicles, monitor and communicate with drivers, react quickly to maintenance issues, and in some cases even manually optimize routes.

Next came digitization, when every piece of data became a valuable asset. Decisions became driven by data, leading to improved customer satisfaction, cost efficiencies, and a competitive edge in a fast-paced industry.

But even highly data-driven, telematics-supported fleet management software still asks a lot of the fleet manager. While incidents, delays, and maintenance issues may be flagged by the system, there remains a break in the chain. The fleet manager is still called upon to act – usually in a separate system.

## THE NEXT STEP-CHANGE: INTELLIGENT AUTOMATION

Intelligent automation can preemptively manage the entire fleet process based on the context of the business.

**Combining connectivity and digitization with artificial intelligence (AI) and a link to other business systems now enables a next step: intelligent automation.** Everyday fleet and business processes can be anticipated and automated, saving time, effort and – most importantly – money.

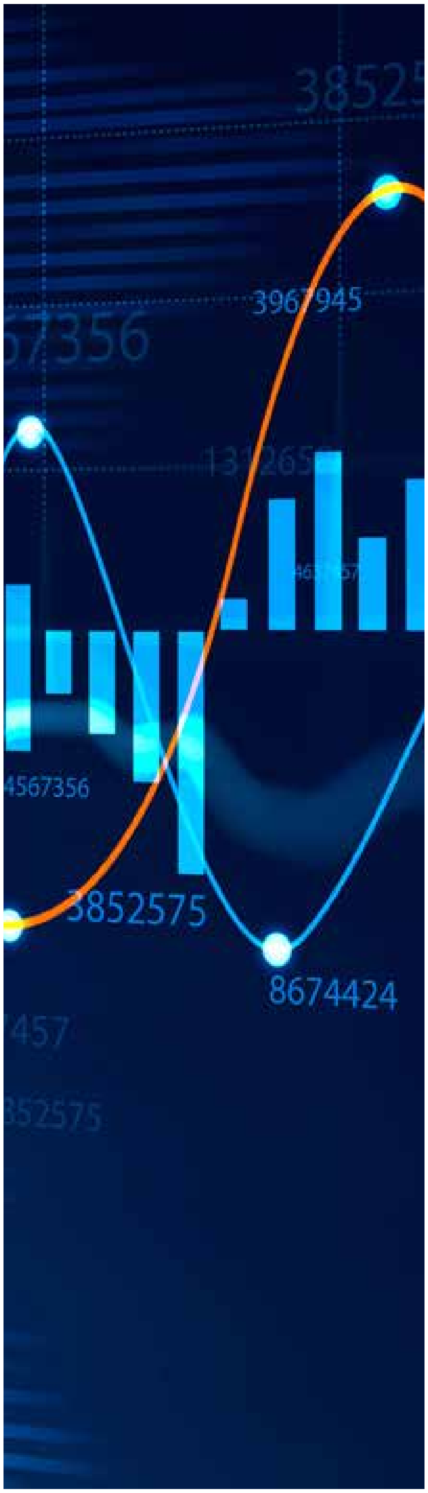
Intelligent automation can organize the entire vehicle lifecycle, reorder new vehicles and monitor delivery on the back-end, while linking with the company's HR system to automatically send automated messages to the driver and schedule a transfer. **What about maintenance?** This too can be automatically managed, with vehicles taken out of the available pool and drivers reallocated a different vehicle – all without a key-exchange, of course.

Intelligent automation can preemptively manage the entire fleet process based on the context of the business; Is there a substantial change in business activity or order volume? Have policies changed? Or simply, are staff on holiday and unavailable to take on a new vehicle? Fleet availability can be adjusted for the short-term, as well as the long-term.

**Staying competitive requires more than just cutting costs.** It's about leveraging technology to gain a strategic advantage. By breaking down silos between fleet and business unit management, intelligent automation dramatically increases the efficiency not just of a fleet, but of the whole business.

## 1. AUTOMATION THROUGHOUT THE VEHICLE LIFECYCLE

**Business needs change.** Especially where they change quickly, there will be a loss of efficiency in fleet management. When linked with business systems, intelligent automation can learn business cycles and proactively manage the vehicle lifecycle process.




### BUSINESS DATA DRIVES FLEET REQUIREMENTS

Companies with a high variability in staff and journeys may find they're constantly on the back foot. Where the fleet manager is last in an information chain, the team may find itself frantically procuring vehicles and sending them to upfitters on too short notice when business picks up. Or having to dispose of vehicles quickly as business volumes flatten.

Some businesses are cyclical or will have telltale signs that lead to a changed need of vehicles. Holiday seasons will drive vehicle and driver demand for courier services; Back-to-school and Black Friday sales may drive an increased need for delivery vans in retail environments. And a wave of illnesses may increase the demand for transport in healthcare services. Each of these events can be anticipated by AI, and automated by intelligent fleet management systems.

Even unpredicted events can be automated; a sudden upswing in order volume at business level can immediately be calculated into increased vehicle capacity. Connectivity between business systems can flag this to a fleet manager; intelligent automation can take steps to ensuring the requisite capacity is available.

AI algorithms can analyze historical data, seasonality, and external factors to predict demand for fleet vehicles, and then assist in allocating resources efficiently – thereby maintaining optimal fleet size.

## VEHICLE-EXCHANGE

As every fleet manager knows, infleeting and defleeting are pivotal moments that can make or break the economics of fleet management.

Once vehicles are on the way, bringing new vehicles into your fleet – infleeting – is among the most critical yet often stressful tasks for fleet managers.

Registering vehicles, setting up insurance, verifying delivery and upfitter schedules, tracking delivery and allocating a vehicle and access the driver – these are standard fleet-management processes. When one of these subprocesses stalls, it eats into the productive time of the vehicle.

On the other hand, vehicle registration systems by local and national authorities can be linked directly into fleet management systems. Similarly, insurance, leasing, upfitter, remarketing, dealer and manufacturer systems allow a direct linkage for vehicle management. And what's linked into the system, can be automated – based on the needs of the business. Automating this process "has saved my team at least 10 hours a week of manual data entry," according to David Hayward, Senior Manager of Global Fleet Management.

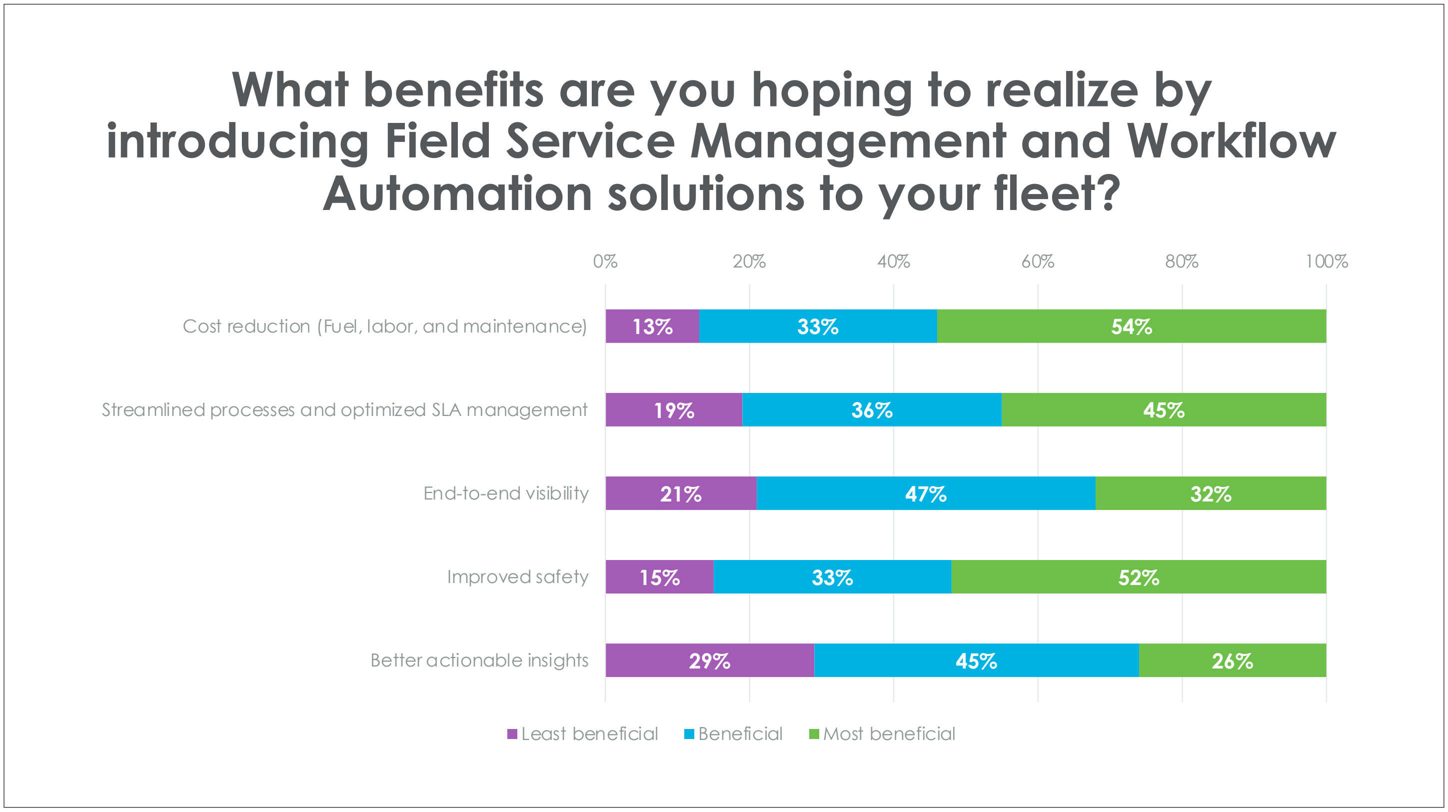
"We have an internal fleet database which managers can access to add, remove, or change details (assignment, address, cost center) about a vehicle. These changes are approved/implemented through automation, and then shared with some of our third party providers. This automation has saved my team at least 10 hours a week of manual data entry."

**David Hayward**

*Senior Manager – Global Fleet Management, ABM Fleet*

## 1. AUTOMATION THROUGHOUT THE VEHICLE LIFECYCLE

In this way, the entire fleet process can be optimized – enabling automated timing changes and redispatching, even when there are delivery delays. In an ABI Research survey of 96 executives in fleet management, four out of 5 noted that the end-to-end visibility provided through workflow automation would be "most beneficial" or "beneficial".




**Every business can thereby minimize the cost of leasing, financing, storage, insurance, and registration costs by bringing business systems, supplier systems, and vehicle data together into one, intelligent data pool – achieving:**

- A reduction in idle fleet time,
- An increase in manageable assets,
- A streamlined and more satisfactory handover process, and most importantly,
- Considerable cost efficiencies.

## VEHICLE LIFECYCLE MANAGEMENT – FROM BEGINNING TO END

Similar gains can be made throughout a vehicle's lifecycle, and especially as its planned time in the fleet comes to an end. Tracking the status of vehicles at every stage in the process reduces the administrative burden on fleet managers – and their partners.

Extend the lease, repair, return, or buy and remarket? Using computer vision and AI-guided analysis, vehicles can be evaluated for damage and maintenance status at any time, automatically calculating residual value or a repair need. Optimizing the vehicle inspection report (VIR) process improves the bottom line of the business – automatically.

In turn, systematically importing vehicle inspection data from centralized reporting (such as from a government or auto club database) can even prevent nasty valuation surprises down the line – especially where used vehicles are brought into the fleet mix.

## 1. AUTOMATION THROUGHOUT THE VEHICLE LIFECYCLE

For rental car companies and car-sharing services, infleeting and defleeting can be the difference between profit and loss. Automatically comparing the fleet needs of the business with external data (such as economic forecasts, travel patterns, and current vehicle market values) may even be possible. This can guide a decision to keep or defleet a particular vehicle, further optimizing the profit generated from it.

In the case of service-vehicle fleets, minimizing transfer time between vehicles is essential to maintaining uninterrupted operations. And for benefit-car (perk-car) drivers, the quality of service and any necessary training on new vehicles are paramount. Drivers can quickly get on the road with new vehicles and seamlessly return older ones, allowing them to focus on their primary responsibilities.

## INTELLIGENT AUTOMATION WITH LINKED SYSTEMS BRING BENEFITS FOR INFLEETING AND DEFLEETING

| FOR DRIVERS: | FOR FLEET MANAGERS: | FOR THE BOTTOM LINE: |
|---|---|---|
| ■ Streamlined vehicle pickup and return procedures and therefore<br>■ Time saved | ■ Efficient vehicle turnover,<br>■ Reduced administrative burden,<br>■ Improved asset utilization with minimized downtime<br>■ Potentially higher perceived customer (fleet driver) service. | ■ Faster vehicle deployment, and<br>■ optimized resource allocation. |

## ACT LOCALLY, PLAN AND AUTOMATE GLOBALLY

While vehicles themselves may be a local affair, managing a fleet – across multiple divisions and vehicle categories – is clearly a national (or even global) task.

For the finance manager, the impact of intelligent fleet management systems on the bottom line cannot be overstated. Full integration with corporate accounting and ERP systems means the fleet management process can be aligned with the needs of the business – even across regional and divisional lines.

Not just the quantity of vehicles, but also the size, style, engine type, and supplier of vehicles (whether on two wheels, four wheels, or even 18 wheels) can be managed by fleet automation systems. As one division upgrades and another downsizes, vehicles can be reallocated automatically, by capacity, range, or even driver licensing factors. Just as the parts procurement and delivery process in a factory is automated, so too should fleet repositioning processes be launched automatically.

In an industry where every minute and every dollar counts, and simple errors can lead to value destruction, fleet automation is the key to unlocking efficiency and profitability. The system ensures that no step is missed, from vehicle ordering and allocation, to inspection and maintenance, right through to driver handovers and returns – all while providing a clear digital trail for record-keeping and compliance.

## NET ZERO COMMITMENTS MADE EASY

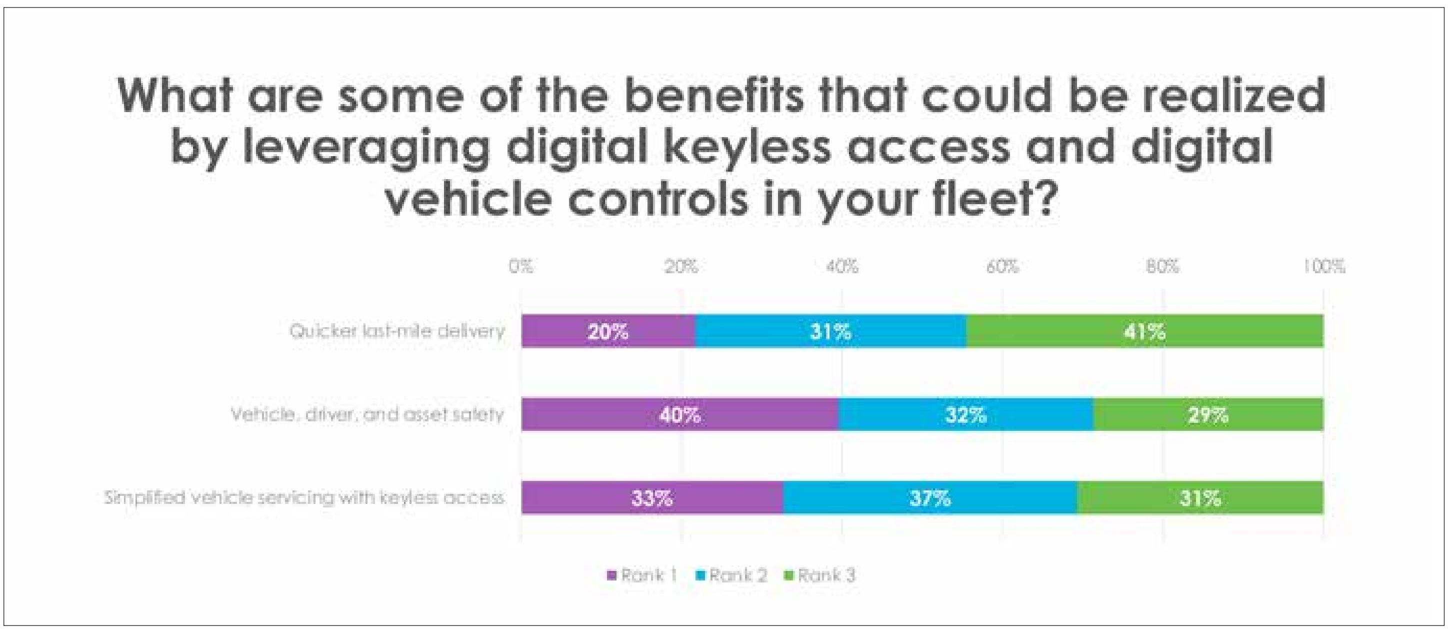
Progress with company-wide CSR and ESG goals can also be monitored and reported in real-time by providing visibility and transparency of fleet use directly into accounting systems. Where businesses have made net-zero pledges, CO2 and greenhouse gas emissions data can automatically transfer from fleet to reporting systems – giving investors in the business the reassurance that their company is making good on commitments.

**Finally: automated and linked systems bring precision.** Even a single investigation for a reporting discrepancy can cost the business several days of accountancy time. Especially where this is outsourced, the costs can run into the thousands – negating efficiencies throughout the process, or even elsewhere in the business.

## 2. DRIVER ALLOCATION AND KEYLESS TRANSFER

Especially where drivers don't have allocated or dedicated vehicles, such as in logistics, service-fleets, pool vehicles, or even carsharing applications, the process of transferring keys becomes crucial. It's clearly not an isolated concern; in a November 2022 study by ABI Research, fully 77% of fleet managers interviewed "would consider introducing digital keyless access" to their fleet.[1] Two out of five noted the increase in driver and vehicle safety as the highest benefit of the technology.

**The use-cases are clear:** pool car drivers can be allocated or reallocated a key directly from an intelligent fleet automation system – for a specific day, or a specific timeframe. In rental and carsharing businesses (including corporate carsharing), car keys could automatically be shared with the intended driver, removing the need to pick up a vehicle at a rental desk.



## SAFETY FIRST

**It's a key concern – excuse the pun – that drivers have with corporate carsharing, or pool vehicles: where do I get the key, and what if it's not there?**

In a dark parking lot, drivers may not feel safe finding a key lockbox behind a pillar; on the other hand, the ability to unlock a vehicle from a safe distance via smartphone gives the driver confidence and protection. It's even expected.

## ONE LESS THING TO WORRY ABOUT

Although most vehicles are now equipped with keyless ignition systems, most also still come with a dedicated key fob – an expensive extravagance that can be lost – or could be replaced by keyless access via smartphone.

Automation in fleet management can transfer keys automatically, perhaps removing the need for a fleet manager to serve as a middle-person as vehicles are shared or transferred from one staff member to another. Even simpler than "click and allocate", the intelligent system will transfer key, charging or fuel card, insurance and registration data without the fleet manager getting involved. One less thing to worry about, indeed.

## INTELLIGENT AUTOMATION FOR DRIVER AND KEY ALLOCATION BENEFITS

| FOR DRIVERS: | FOR FLEET MANAGERS: | FOR THE BOTTOM LINE: |
|---|---|---|
| ■ Enhanced safety<br>■ Time saved | ■ Enhanced vehicle utilization,<br>■ Reduced idle time, and<br>■ Improved fleet security. | ■ Optimized vehicle deployment and<br>■ Increased asset security |

## 3. DRIVER BEHAVIOR MONITORING AND TRAINING RECOMMENDATIONS

**Driver behavior impacts safety, maintenance schedules, repairs, fuel and energy use, and much more – and it can be monitored and improved.**

Drivers who prioritize safe and efficient driving habits are invaluable assets to fleet managers. They not only enhance safety but also improve the overall operational efficiency and sustainability of the fleet. Safe driving practices not only reduce the risk of accidents but also lower fuel or energy use, maintenance costs, and insurance premiums.[2] Finally, it also contributes to extended vehicle lifespan and decreases the environmental footprint.

### IMMEDIATE FEEDBACK, IMMEDIATE RESULTS

Educating drivers toward greater safety and economy is an ongoing process – and one that can be automated. Rather than receiving guidance after a journey, a driver can receive AI-guided recommendations immediately from onboard sensors and telematics systems (well beyond the shift indicators in manual driven vehicles).

With In-Vehicle Monitoring Systems (IVMS), drivers can receive instant feedback on their performance, leading to safer and more fuel-efficient driving habits. AI monitors driver behavior by analyzing data from onboard sensors and identifies risky behaviors. Harsh braking or speeding can be proactively identified and communicated to the driver – automatically and during the activity, not just after the fact, by a fleet manager.

"In-vehicle telematics devices monitor acceleration/deceleration, speed and speeding events… and the driver's exposure across road types, location, time of travel, distances travelled, parking habits (garaged or street), crashes and immediate pre-crash vehicle behaviors. Rather than using self-reported driver characteristics and past crash claims to estimate insurance premiums, in-vehicle telematics enables dynamic estimation of risk, based on the behavior of individual drivers."[3]

## 4. FUTURE TRENDS IN AUTOMATION

AI-driven data analytics tools process vast amounts of fleet data to uncover valuable insights. By integrating supplier and partner systems, and deploying intelligent automation within their fleet systems, managers can use these insights to make informed decisions, optimize operations, and adapt to changing market conditions.

External weather and projected traffic and economic data could be matched by AI with internal order data in to plan not just routes, but fleet demand overall over the short- and long-term. And the interface will become easier for the fleet manager to master.

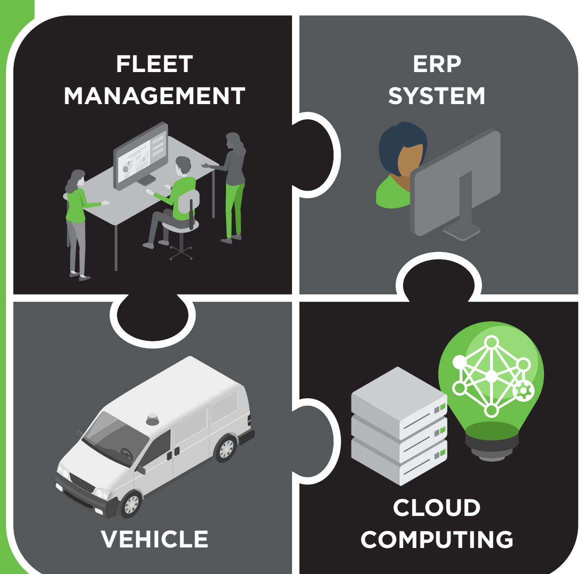
AI-powered chatbots and virtual assistants equipped with natural-language capabilities will facilitate communication between fleet managers, drivers, and customers. Just as they do for customer-service, they may soon even communicate with drivers directly and without fleet-manager guidance. They can answer queries, provide real-time updates, and streamline administrative tasks.

**The only requirement is for fleet managers to automate and integrate.**

"Fleetbot, I'd like to replan my month and pull forward my truck's scheduled maintenance, so that it will be available for a longer trip next month."

"Of course, Susan. I've already anticipated this after seeing the vehicle service data as well as your travel schedule for next month. On Thursday morning the truck will be picked up from your office, serviced while you are in the Sustainability meeting, and returned at 6pm. No need for a key either – the technician will be temporarily allocated access to the vehicle."

"Thank you, Fleetbot. That's perfect."



## SOURCE

[1] ABI Research / Ridecell "Fleet Management Survey" of 249 executives and fleet managers

[2] Responsible driving "can lower fuel economy by 15%–30% at highway speeds and 10%–40% in stop-and-go traffic," according to findings in an Oak Ridge National Laboratory report, "Fuel Consumption Sensitivity of Conventional and Hybrid Electric Light-Duty Gasoline Vehicles to Driving Style" of August 2017

[3] Mark Stevenson, Anthony Harris, Jasper S. Wijnands, Duncan Mortimer, "The effect of telematic based feedback and financial incentives on driving behavior", September 2021