



Unlocking Seamless Fleet Sustainability With Smart Payments

FROST & SULLIVAN WHITEPAPER

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Introduction

As sustainability becomes a priority for businesses, the transition to electric vehicle (EV)-based fleets has become a central pillar of decarbonization efforts. In 2024, Frost & Sullivan interviewed over 500 businesses with mixed EV/ICE fleets across Europe, the US, Australia, and New Zealand about their journey toward electrification. It showed that EV adoption offers more than an immediate pathway to reducing greenhouse gas emissions: it can also be a smart financial move, often carrying lower maintenance and operating costs than gasoline or diesel-fueled internal combustion engine (ICE) vehicles.

Fleets need advanced, specialized tools to optimize their mixed fleets and EV transition. Purpose-built payment platforms are emerging to meet the unique needs of mixed- and fully electrified commercial fleets. Smart payment systems aim to unify the driver’s charging experience, provide back-end analytics on usage and costs, facilitate the transition to EVs, supporting ongoing business growth objectives.

Modern solution providers serving commercial fleets recognize that, while essential, businesses may need more than streamlined payment options to transition to electrified fleets successfully. Frost & Sullivan’s research showed fleets are most interested in the flexibility of where and how they can use a payment solution (Figure 4). Through extensive sector expertise and broad partnership networks, solution providers are enabling this flexibility; and going beyond as well, building offerings and capabilities that address standard and evolving EV payment systems options. After flexibility and security, the next most important feature sought by fleets was compatibility with fleet management systems.

FIGURE 4: Top 10 Considerations for Payment Solutions Ranked

Rank	Driver
1	Use card for fueling/charging; use card anywhere (tied)
2	Security
3	Compatibility with fleet management systems
4	Fraud alerts
5	24/7 customer service
6	Real-time account management
7	Expense management tool integration
8	Mobile phone access
9	Attractive discounts and rewards
10	Tax exemption reports



Source: Frost & Sullivan



Smart payment systems and beyond

A combination of fiscal management with purpose-built capabilities optimized for EVs distinguishes smart fleet payment products from more basic options. Advanced solutions aim to remove payment friction while providing indispensable fleet electrification tools, such as the following:

- **Provide analytics.** Detailed data, reporting, and insightful dashboards help managers make smart decisions based on accurate charging, usage, and cost data.
- **Enable scalability.** Advanced payment systems can readily scale up in capabilities and geographic reach as fleet charging needs grow over time.
- **Facilitate driver convenience.** Universal payment methods avoid drivers juggling multiple access cards, RFIDs or apps to pay at all station types.
- **Embed robust cybersecurity.** Charging platforms handle sensitive payment data and interface with increasingly connected vehicles, all of which need stringent data security.
- **Cost streamlining.** Consolidated billing of all charging transactions simplifies accounting and provides visibility into total energy costs.
- **Demonstrate future-proofing.** Utilizing adaptable technology allows the integration of emerging innovations such as autonomous charging.
- **Inform EV transition strategies.** Leveraging expertise in the sector and strategic partnerships, the right payment solution provider can even aid in a smooth transition to EVs by advising on ideal vehicles and timing based on a business' existing fleet and their expansion goals for that fleet.



Businesses need to consider their priorities and growth objectives when considering payment platforms and solution partners. Will the business expand to new geographies, and can the platform operate internationally? Will the business begin to include public charging as it expands, or will it build out its own depots; and can the same payment solution migrate between the two? Can the platform foresee advances in technology, such as autonomous EVs that self-charge based on usage or schedule? If so, can the payment system securely authorize vehicles, and not just drivers, to authenticate and pay for charging?

Charging infrastructure and adaptable payment tools need to be tightly aligned to address an evolving fleet. Upgradable payment solutions that anticipate fleet needs can help avert future bottlenecks. Forward-thinking businesses should consider unified payment platforms that easily integrate with networks old and new. This avoids having to rip-and-replace systems down the road as EVs continue scaling up.

Next steps for smart fleet payments

Specialized payment platforms built for the unique demands of electrified fleets will help businesses move toward a more sustainable, mixed-energy fleet with more ease and less complexity. Steps that an organization can take to find, evaluate, and implement next-generation charging include the following:

- **Consider seeking an experienced partner organization** that can provide EV fleet planning and integration tailored to the business' unique needs. Enlisting a combination of purpose-built technology and expert guidance ensures fleets can smoothly transition across vehicle technologies, leverage best-in-class processes and systems, and address driver and fleet manager needs simultaneously.
- **Understand the benefits that purpose-built fleet payment solutions can provide.** Businesses should evaluate fleet card offerings and their capabilities relating to driver convenience, back-office analytics, bill consolidation, and route planning optimization.
- **Consider pilot deployments.** The right pilot program helps fleet operators learn the system, test its benefits or challenges, and right-size a scalable smart payment plan aligned with long-range transition milestones.
- **Recognize that it may not be advisable to simply “plug in” new EVs** and assume that existing systems will adapt. The right payments and fleet management platform optimizes both ICE and EV assets for a business's specific operational environment. Being proactive in selecting or upgrading to payment solutions that remove friction while providing actionable data is fundamental to easing into a mixed-energy fleet and recognizing quick ROI.



Businesses strategically leveraging smart payment systems gain significant control and visibility as fleet electrification accelerates. The integration of efficient charging, robust data, and advanced capabilities streamlines financial transactions, propelling businesses toward more easily managed, sustainable operations. With the ability to monitor and optimize sustainability and track TCO, comprehensive payment tools provide the intelligence, guidance, and future-proofing insights that businesses and government fleet



managers need to prepare for a fast-approaching EV future. As the EV landscape continues to evolve, these smart payment solutions will play an increasingly crucial role in helping organizations navigate the complexities of mixed-energy fleets. By embracing these technologies, fleet operators can position themselves at the forefront of the transportation revolution, driving both operational efficiency and environmental responsibility.

For more in-depth insights and analysis, download the full white paper [here](#).

About the survey

Frost & Sullivan interviewed 503 decision-makers at businesses with mixed EV and ICE fleets in 2024. The regional split for these interviews was as follows: France, 65 respondents; Germany, 60 respondents; Italy, 65 respondents; UK, 61 respondents; Benelux, 22 respondents; United States, 105 respondents; Australia, 60 respondents; New Zealand, 60. Fleet size definitions and corresponding respondents were: Very small fleets 2-4 vehicles, 101 respondents; small fleets 5-49 vehicles, 114 respondents; medium fleets 50-99 vehicles, 116 respondents; large fleets 100-499 vehicles, 115; very large fleets, 500 vehicles or more, 57 respondents.

Data referenced in this paper is based on the Frost & Sullivan survey unless otherwise stated and does not claim to represent the entire fleet user population. Percentages may not always total 100% due to rounding. The interpretations and conclusions drawn are those of the authors representing Frost & Sullivan and do not necessarily reflect the views of WEX, the respondents of the survey, or their organizations.

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