2021 FLEET TECHNOLOGY TRENDS REPORT











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FLEET TECHNOLOGY ADOPTION AND BENEFITS

In the current context, where the pandemic has force an increased need to manage performance, operations and cost management, the global demand for fleet management solutions is growing rapidly.

A key factor contributing to the market are the investments being made into corporate vehicle fleets for employees. Historically, companies owned their own cars and managed their fleets internally, but this approach is changing and fleet management is being increasingly outsourced.

So, the growth of the vehicle leasing business in the region has resulted in increased investments in technology.

Furthermore, the existing regulations for drivers operating fleet vehicles and the need to manage the entire workforce and to integrate external systems requires the use of an advanced system.

U.K. and Germany are leading European markets for fleet management solutions, and the trend is unlikely to change throughout the forecast period. However, uncertainty over the impact of Brexit on transport and logistics, and vehicles sales is a challenge to market players operating in the region.

The forecast for the installed base of Fleet Management Systems in Europe is 19.9 million by 2024.



The fleet management solution market is characterized by high fragmentation, rising presence of original equipment manufacturers, low levels of product differentiation, and a decrease in hardware and connectivity costs.

Increased competitiveness in the market has led to multiple innovations in telematics and analytical solutions.

Source: Mordor Intelligence, 2021



Source: ioT Business News, 2021

^{1.} Mordor Intelligence: https://www.mordorintelligence.com/industry-reports/global-fleet-management-software-market-industry, 2021
2. IoT Business News - https://iothusinessnews.com/2020/11/27/30920-the-installed-base-of-fleet-management-systems-in-europe-will-re-

 $^{2.\} IoT\ Business\ News-https://iotbusinessnews.com/2020/11/27/30920-the-installed-base-of-fleet-management-systems-in-europe-will-reach-19-9-million-by-2024/, 2021$

CONNECTIVITY AND TELEMATICS IN EUROPE

Fleet managers are often looking for a strategy to increase the uptime of their vehicles and reduce costs for companies. These goals are more likely to be achieved with the possibility to integrate connectivity and telematics in a single solution.

In the last years, there is also a growing importance of car and ride-sharing as well as self-driving vehicles. For both trends, fleet management will gain greater importance and will be a key to foster the prospective mobility value chain.

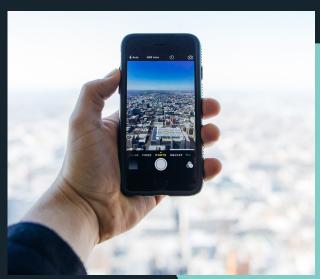
Nowadays, more and more companies tend to analyze and optimize the total mobility cost (TCM), calculated by mobility user, together with the TCO, that provides cost calculation data per vehicle. The latest fleet management solutions allow you to manage vehicle sharing and offer multi-vehicle options with travel cost and vehicle usage indicators.

It is a fact that data analytics can help to streamline all fleet areas, collecting data that leads to better insights to businesses management, like asset utilisation, fuel consumption, contracts management, taxes and costs.

On the other hand, Telematics allow access to real time data on the vehicle in terms of driver behavior, inventory of spare parts, driving patterns, vehicle maintenance, movement tracking, estimated travel times, and fuel efficiency among other things, reducing costs and promoting effective maintenance.

Connectivity and telematics are revolutionizing the world of corporate fleets. These innovations create new opportunities for the automotive sector, using additional hardware, software solutions and mobile applications.

When connecting vehicles to the Internet, the connected devices are able to collect data that allow managers to have full visibility and a better understanding of how they can improve their fleet. With remote diagnostics, it 's easier to check fleet status and identify vehicles that may be damaged.



NEW CHALLENGES

As new challenges arise, fleet managers should consider the potential challenges that their fleets may face, a need that has also led to increased demand for fleet management solutions.

In recent years, the demand for alternatives to Internal Combustion Engines has increased, as well as for solutions that promote environmental sustainability. It is a fact that, with the combination of vehicle sharing and electrification, it is possible to reduce carbon emissions.

Therefore, switching to EVS or sharing vehicles will increase the relevance of fleet management, with the need to reduce the total cost of travel expenses and costs related to the fleet, rather than just the TCO.

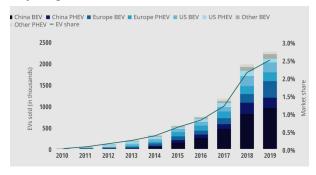
With decarburization at the top of the agenda at this year's COP26 in Glasgow, a new technological breakthrough and set of regulations is driving the world into a new era of mobility - connected and electrified.

Expected future development of CO2 emission limits in Europe



Source: Deloitte analysis ³ ⁴

EVs: annual passenger-car and light-duty vehicle sales in major regions



Source: Deloitte analysis

FIVE ENABLERS OF ENERGY

TRANSITION



COHESIVE REGULATION

A strong mandate for electrification will set a clear direction so that every participant in the value chain can engage in joined-up planning and investment.



FUNDING MODELS

New funding models must deliver €80bn of investment in public and private charging infrastructure by 2030.

- 3. Verordnung (EG) Nr. 715/2007 des Europäischen Parlaments und des Rates vom 20. Juni 2007 über die Typgenehmigung von Kraftfahrzeugen hinsichtlich der Emissionen von leichten Personenkraftwagen und Nutzfahrzeugen (Euro 5 und Euro 6) und über den Zugang zu Reparaturund Wartungsinformationen für Fahrzeuge (Text von Bedeutung für den EWR)
- 4 Focus: http://www.focus.de/auto/ratgeber/kosten/wltp-zyklus-vs-nefz-istder-wltp-zyklus-wirklich-besser_id_5749720.html, 2016
- 5 Deloitte analysis, IHS Markit, EV-volumes.com

EASING THE TRANSITION TO EV

Making the transition to EV with confidence requires a deep understanding of the broad spectrum - of all the implications and possible effects- and telematics can help.





SUPPLY CHAIN

Beyond getting the right products to the right markets at the right time, the supply chain must satisfy battery and vehicle demand, and enable end-of-life battery recycling and the acquisition or transition of skills and resources.



PHYSICAL INFRASTRUCTURE

Optimally sited public charging points (a mix of fast and slow chargers), aligned with EV take-up and grid capabilities, will encourage customer confidence.



DIGITAL INTERFACE

The open exchange of data from vehicle to charge point to grid is critical, along with a simplified and seamless customer experience, irrespective of vehicle, payment and contract type.

INCENTIVES FOR TRANSITIONING TO EV

The choice of a particular EV model implies the knowledge of the type of use that the vehicles will have on a daily basis - the distance they will actually travel in a given period of time; and whether their recharge periods are compatible with the existing work demands

Fleet electrification therefore raises a number of issues, and fleet managers need to have visibility into the challenges that their fleet may face.



France offers bonuses of up to €7,000 for households purchasing cars or vans with CO2 emissions under 20g/km, plus scrappage schemes up to €5,000; a €1,000 subsidy is available for the purchase of an EV if you live or work in a lowemission zone.

In Italy, subsidies of up to €6,000 are available towards the purchase or lease of a new car with CO2 emissions under 20g/km for individuals and companies.

The Netherlands offers a €4,000 subsidy for the purchase or lease of a new EV, and €2,000 for the purchase or lease of a used EV.

In Sweden, a climate bonus of SEK60,000 (€6,000) is available on new zero-emission cars and light vehicles, and SEK10,000 (€1,000) on PHEVs with emissions less than 70g/km.

Bonuses in Portugal for private purchases of battery electric cars or vans are €3,000. Companies can buy up to four vehicles, with bonuses of €2,000 for cars and €3,000 for vans.

Source: Wallbox, 2021



Although the transition to electric vehicles is apparently moving at great speed, there are still major barriers that prevent it from becoming a reality.

Europe's existing 213,000 public EV charging points are well below target. At the end of 2020, just 1 in 10 charging points is a fast charger.

The European Commission is calling for three million public charge points by 2030, demanding a 13-fold increase within the next 10 years.

European non-profit organisation Transport Environment estimates that we need 1.3 million public charge points by 2025 and close to 3.0 million by 2030. This calls for investment of around €20bn, based on an assumed uptake of between 33 million and 44 million EVs on Europe's roads. Further investment of around €25bn is needed in power distribution grids to support charging infrastructure rollout, according to Eurelectric.

Source: Colle et al., 2021



CONCLUSION

The increasing relevance of fleet management in Europe is undeniable.

The access to data in real time and the existence of analytical tools that allow to have a proactive strategy and timely decisions is critical to face the growing competitiveness of fleet management market.

Environmental awareness came to foster the shift to new mobility models, like car sharing and the transiction for EV solutions, which are beginning to be seen by companies as an opportunity to comply with environmental legislation and to increase their profitability.

Fleet managers must therefore rethink their role as asset managers and consider several strategic options to cope with future changes.

Therefore, IT companies will need to invest in technological development to provide increasingly advanced solutions, in order to respond to market demands.



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Alameda Futebol Clube de Infesta, 29 a 47| 4465-141 S.Mamede de Infesta

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