Roland Berger Focus

Car-as-a-Service

Medium-term opportunities for fleet management solution providers





Management summary

From around 2030 we are likely to see autonomous electric vehicles widely used on our roads. This will create a clear role for fleet management solution providers, running the autonomous fleet right across the vehicle lifecycle, from procurement to re-marketing, and providing additional services such as aftermarket services and insurance. But what about the next ten to fifteen years? In the medium term, fleet management solution providers need to carve out a clear strategy for themselves - a strategy that will help them survive rapid changes such as new mobility trends, digitalization and electrification.

These trends, we believe, are opportunities not threats. The "Car-as-a-Service" model, which includes phenomena such as ride hailing, car sharing and car pooling, will lead to a major increase in the volume of fleets and in overall vehicle usership. Fleet management solution providers are ideally placed to benefit from this development.

At the same time, canny market players are beginning to realize that used vehicles, both passenger cars and light commercial vehicles, are not just a source of residual value but can generate real profit. Exploiting the opportunities offered by digitalization and globalization, players can sell their used vehicles through new channels and enjoy hitherto unseen opportunities for arbitration. They can offer additional services, such as financing and extended warranties. And they can even consider re-leasing used vehicles rather than selling them off.

In this paper we examine how the market is changing. We dispel some of the common myths about what those changes mean for fleet management solution providers. In particular, we look in detail at the new opportunities offered by the Car-as-a-Service trend and used vehicles. We believe that the medium-term prospects for companies in this sector are highly positive, as long as they take a proactive approach to the changing environment. To help them on their way, we make some practical recommendations: six commandments that can form a framework for targeted action over the next decade and a half.

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Chapter 1:

Separating myth from reality

Disruption creates opportunities for astute players.

Looking into the future is a risky business. Pretend to know what lies around the corner and there will be no shortage of people, five or ten years down the line, more than happy to point out exactly where you got it wrong. Nothing is more enjoyable than deriding mistaken predictions with the benefit of hindsight.

But when we look deep into the crystal ball with regard to mobility, the longer-term future actually appears rather clear. After 2030 or so, autonomous electric vehicles will be generally accepted by the public and widely used on our roads. Fleet management solution providers, with their proven capabilities, will be able to provide aftermarket services through their existing partner network and offer additional services such as supplying insurance for fleets.

But what about in the medium term, the next ten to fifteen years? What is the right strategy for fleet management solution providers, be they independent fleet management companies, companies affiliated to banks, or captive companies run as an offshoot of an automotive manufacturer (see box on page 6)? What should the medium-term approach of these various types of players be?

That is the question we set out to answer in this paper. The next ten to fifteen years will see a major disruption of the status quo, triggered by a combination of developments in new mobility, autonomous driving, digitalization and electrification. Myths abound regarding the impact of those changes on the European vehicle leasing and fleet management market - misconceptions that we sought to correct in previous publication.¹ Our conclusion was that the coming changes represent an opportunity, not a threat: a not-to-be-missed chance for market players over the next decade and a half.

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What are the key trends of significance for fleet management solution providers? First there is the fact that customer behavior is changing right before our eyes. Younger consumers - the millennials so beloved of social-trend analysts - display a definite preference for usership over ownership. The shift toward subscription and pay-per-use models is clearly observable in many industries, be it music (Spotify), movies (Netflix) or data storage (Dropbox). Experts like to call this as the "Everything-as-a-Service" trend.

¹Debunking myths. Roland Berger Spotlight, November 2017.

Understand:

Fleet management solution providers

Fleet management solution providers are companies that serve the Car-as-a-Service market. They provide corporate and private customers with end-to-end services including vehicle procurement, fleet management, repair and maintenance services, insurance and vehicle remarketing.

The market is home to three differing types of players: independent fleet management companies, bank affiliates and OEM captives. These three differ in terms of their ownership, how they come to be involved in leasing, what sort of distribution network they use and who their main target customers are.

Traditional independent fleet management companies include the likes of LeasePlan and Sixt Leasing. This type of player has a diversified ownership structure made up of various investors. As a result, they are not subservient to a bank or OEM and can act independently. They provide leases to their customers as a service, have their own sales organizations and are involved in partnerships. Their main focus is on corporate clients, including both small and medium-sized enterprises (SMEs) and larger businesses.

Bank affiliates include the likes of ALD, Arval, UniCredit Leasing and Credit Agricole. These companies are owned by financial groups. In other words, they are subsidiaries of banks: ALD belongs to Société Générale, Arval to BNP Paribas, and so on. For this type of player, leasing is a diversification of their Group's banking products. They traditionally sell their leasing agreements through their parent bank's branch network by means of cross-selling. Like independent fleet management companies, they focus on corporate clients of all sizes.

Finally, **OEM captives** are firms such as Volkswagen Financial Services, Ford Credit, Toyota Financial Services, Daimler Financial Services and BMW Financial Services. As can be seen from their names, they are owned by major automotive manufacturers. For such companies, leases are an enabler for vehicle sales. They sell leasing agreements via their OEM's branded dealer network and their main target groups are SMEs and private customers.

The automotive industry is no exception. Traditional leasing is rapidly developing into a consumer-focused "Car-as-a-Service" or CaaS model (see Understand box on page 7). The historically asset-oriented, fixed leasing period paradigm is shifting toward more flexible and service-oriented mobility solutions. This development has obvious implications for fleet management solution providers, as we discuss in the next pages.

A second trend is creating a complementary opportunity for canny fleet management solution providers. The used vehicle market is increasingly being seen by the leasing industry as a business opportunity in its own right. In terms of market size, this is potentially even bigger than CaaS. Market participants are waking up to the fact that rather than just having residual value, used vehicles can actually be a source of real profit.

In chapter 2 we provide an in-depth analysis of each of these segments, the CaaS market and the used vehicle market. We examine the scope of the opportunity for fleet management solution providers in the medium term and highlight the key trends and drivers affecting the markets. We further divide the two markets into two sub-segments, passenger vehicles and light commercial vehicles, and examine the differences between the two in terms of market size and competitive landscape.

Our conclusions will surprise those analysts who see the impact of the coming changes in a purely negative light and those within the industry who have bought into the prevalent myths about the future. We believe that, if tackled properly, the transformation in mobility will create unmissable opportunities for fleet management solution providers. However, the burden is on market players to come up with a robust medium-term strategy for exploiting those opportunities. With this in mind, we provide a framework of six commandments that players would be well advised to follow in order to benefit fully from the chances that lie ahead.

Understand:

Car-as-a-Service

fixed-leasing-period paradigm toward flexible, ser-

LCVs. Passenger vehicles are vehicles used for passenpassenger seats. LCVs are vehicles that are mainly used for goods transportation purposes with a gross vehicle

Chapter 2:

Car-as-a-Service

The emergence of a subscription economy is reshaping the market.

The first of the two key medium-term developments for fleet management solution providers is Car-as-a-Service. One of the megatrends affecting the automotive industry is the emergence of a subscription economy and accelerating trends toward usership rather than ownership, as we touched on before. It is frequently argued that this will lead to a reduction in the number of vehicles on the road and a shrinking fleet management market.

We beg to differ. The reality is that vehicles have in fact been undergoing an evolution from ownership to usership over many years. A movement toward subscription and pay-per-use models is clearly observable in many industries, and companies in different sectors have successfully migrated from selling products to providing products as a service. The automotive industry adopted this trend early on; the shift has been ongoing in the industry for many years and continues today. Leasing was initially just a financial service but now allows customers to outsource the ownership and entire management of their vehicles, from procuring them to maintaining, remarketing and upgrading them. Leases are also increasingly moving away from fixed terms to flexible durations.

The emergence of phenomena such as ride hailing, car sharing and car pooling is simply the next stage in the evolution of the CaaS continuum. Although these trends may lead to a reduction in overall vehicle ownership, we are convinced that they will also lead to a significant increase in the volume of fleets and in vehicle usership. Fleet management companies are ideally positioned to benefit from both of these trends. $\rightarrow A \rightarrow B$

We divide the CaaS market into two sub-segments: passenger vehicles and light commercial vehicles. The European passenger vehicle CaaS market in the 18 EuropeThe automotive industry adopted the trend toward subscription and pay-per-use models early on; the shift has been ongoing in the industry for many years.

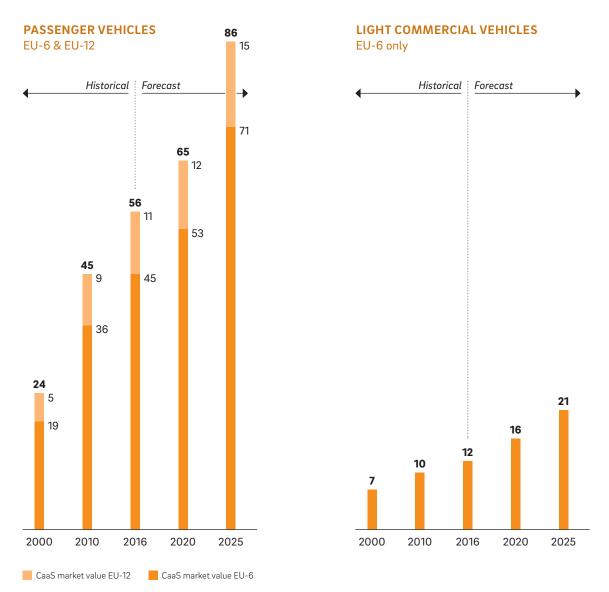
an countries that we examined in detail was worth approximately EUR 56 billion in 2016, mainly driven by six core countries.2 We predict that this will grow steadily at around five percent a year through 2025, when it will be worth some EUR 86 billion. Growth will be accompanied by an increase in the penetration of CaaS in the total car parc, which will lead to a total CaaS car parc of around 15 million passenger vehicles in 2025.

In the period to 2025, growth of the overall passenger vehicle CaaS market will mainly be driven by the expansion of specific customer segments. We will see increasing adoption of the CaaS model by private customers, accompanied by the emergence of new mobility providers such as Uber and Car2Go, who will look for full-service leasing packages for asset lifecycle management.

²We examined the six leading EU leasing markets for passenger vehicles and light commercial vehicles: France, Germany, Italy, the Netherlands, Spain and the United Kingdom. We call these countries the "EU-6". For passenger vehicles only, we also looked at the 12 next most important European markets: Austria, Belgium, the Czech Republic, Denmark, Finland, Greece, Hungary, Norway, Poland, Portugal, Sweden and Switzerland - the "EU-12".

A: Very positive market outlook.

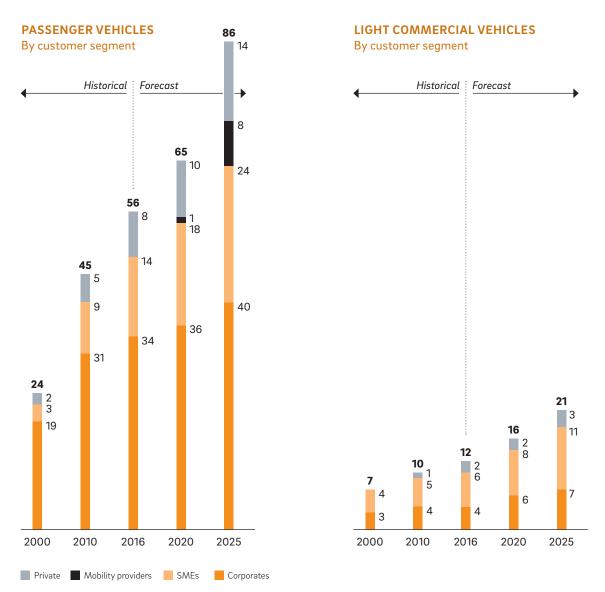
CaaS market value, 2000-2025 [EUR bn].



Source: IHS; Frost & Sullivan; profit pool analysis; interviews with market participants

B: Both traditional and new customer segments driving growth.

CaaS market value, 2000-2025 [EUR bn].



Source: IHS; Frost & Sullivan; profit pool analysis; interviews with market participants

We also expect to see small and medium-sized enterprises (SMEs) growing in terms of absolute numbers, gaining market share from corporate customers.

A number of factors underlie the expansion of this segment. We have already mentioned the evolution of the mobility industry from a purely product focus to a service focus, including a range of adjacent services. This development makes leasing more attractive overall. We also observe a growing trend toward outsourcing, especially among corporations, in order to avoid the perceived hassle of having to maintain a fleet themselves. At the same time, tighter environmental regulation based on tax mechanisms is making car ownership financially less attractive.

The light commercial vehicle (LCV) market differs fundamentally from the passenger vehicle market in a number of ways, including size, customer segmentation and the purchasing criteria of buyers. Another notable difference is that, in the longer term, LCV sales are strongly correlated to the development of gross domestic product (GDP) and the total number of small and medium-sized enterprises.

The size of the LCV CaaS market in the six leading leasing markets in Europe was an estimated EUR 12 billion in 2016, less than one-fourth the size of the equivalent passenger vehicle CaaS market. Like the passenger vehicle CaaS market, however, the LCV CaaS market is projected to grow faster than mobility demand and new car sales through 2025. It is also forecast to show steady growth across all markets at around 5.8 percent a year, reaching a value of approximately EUR 21 billion in 2025. Driving the growth of this segment is a strong focus on total cost of ownership (TCO) in the corporate segment. For these clients, we also foresee a further shift toward outsourcing fleets and a focus on connectivity solutions. The major growth driver, however, is simply the increase in the total number of SMEs, which will account for around half of the total LCV CaaS market in 2025.

The passenger vehicle and LCV markets for CaaS have very different competitive landscapes. The passenger vehicle CaaS market in the eighteen European countries we studied is led by several major players who together serve more than 50 percent of the market, including Volkswagen Financial Services, Arval, LeasePlan and ALD. All players, be they independent fleet management companies, bank affiliates or OEM captives, are moving from their initial positions toward multi-brand, full-service leasing.

By contrast, the LCV CaaS market in the six leading EU leasing markets is still highly fragmented, with a wider variety of players competing for a slice of the market. Although the dominant players in the passenger vehicle market also control the biggest shares in LCVs, no player has an individual share as large as ten percent.

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Chapter 3:

Used vehicles

From residual value to a source of real profit.

The second key medium-term opportunity for fleet management solution providers lies with used vehicles. Here, we need to deal with another widespread misconception. It is commonly thought that fleet management solution providers only operate in one market, the leasing and servicing of cars. Selling cars at the end of their leases for their residual value is a risk rather than a source of real profit, it is argued. This is a myth. In fact, vehicle remarketing is no longer just a residual part of the business model of fleet management companies – it is a huge untapped opportunity.

Surprising at it may seem, the used vehicle market for fleet management solution providers is even bigger than the CaaS market. In 2016, the three to four-year-old passenger vehicle market in our 18 leading European markets was worth almost EUR 62 billion. Market development in recent years has been relatively stable. Despite the total volume of used passenger vehicles sold falling due to limited supply, residual values have gradually increased over time, compensating for this in terms of total market size.

The outlook is positive, too. New car volumes have recovered strongly following the financial and Euro crises. This is driving the supply of three to four-year old passenger vehicles on the used car market, which is set to rise by over four percent a year through 2020. The strong increase in new car sales is not expected to result in oversupply, however, as 2016 new car volumes are still well below their 2007 pre-crisis levels in most of the 18 leading European markets. With the exception of few specific local market developments, the overall shortterm outlook for relative residual values in the 18 leading markets is thus stable.

The outlook for three to four-year-old LCVs in the six leading European leasing markets is even more positive. Valued at around EUR 3.7 billion in 2016, following a decline after the economic crisis, the market is forecast to grow in volume by more than eight percent a year

Vehicle remarketing is no longer just a residual part of the business model of fleet management companies - it is a huge untapped

opportunity.

through 2020. Growth will mainly be driven by the e-commerce and construction sectors, both of which have good prospects for the near future. Relative residual values are expected to show stable to positive development in the short term. \rightarrow C

Leasing and fleet management companies currently sell the vast majority of their used vehicles through auction and wholesale channels. Historically, this approach was driven partly by the desire to dispose of cars quickly and partly by the complexity and local nature of used vehicle markets. But times are changing. Digitalization and globalization are increasing the transparency of markets as never before. New online players such as online wholesaler Auto1.com and virtual marketplace Autoscout24 are offering vehicles on a pan-European scale. Both pure online retailers such as Carvana and click-and-mortar concepts such as CarMax have shown considerable growth rates. The traditional barriers in the used vehicle market are rapidly dissolving. $\rightarrow \underline{D}$

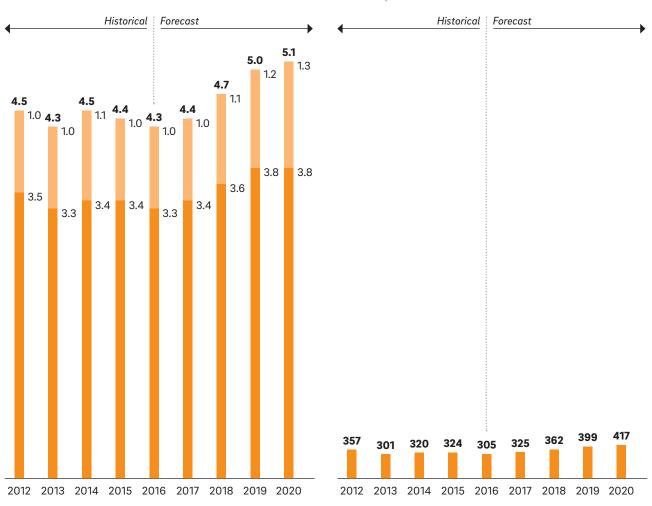
C: Great expectations.

Used vehicle market size, 2012-2020.

PASSENGER VEHICLES

EU-6 & EU-12 [unit m]

LIGHT COMMERCIAL VEHICLES EU-6 only [unit '000]

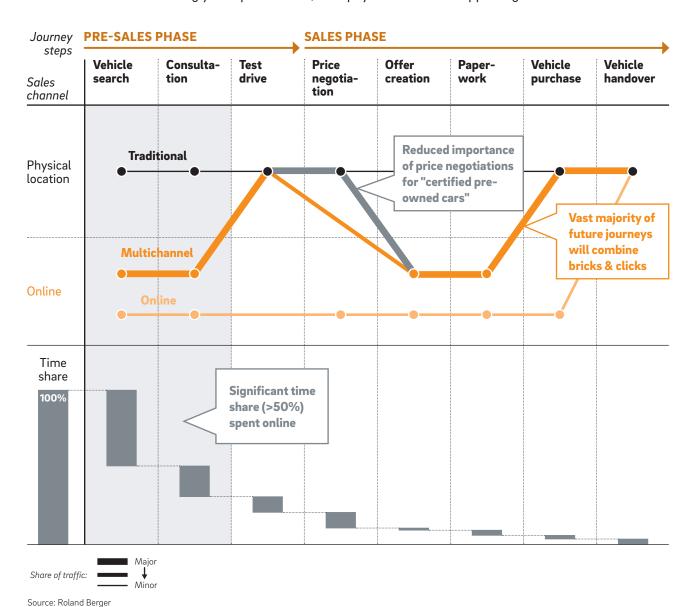


EU-12 EU-6

Source: IHS; Cebia; interviews with market participants

D: The future customer journey.

Used car sales will increasingly take place online, with physical channels supporting sales conversion.



Using their existing platforms for financing, insurance, home delivery, maintenance and parts, and extended warranty services, fleet management solution providers can offer consumers a full-service concept for used cars.

For fleet management solution providers, the opportunity to leverage their existing CaaS capabilities is undeniable. They can bypass intermediaries and sell their used vehicles directly to consumers, in so doing capturing a larger share of the value chain. Using their existing platforms for financing, insurance, home delivery, maintenance and parts, and extended warranty services, they can offer consumers a full-service concept for used cars. They can even consider re-leasing used vehicles rather than simply disposing of them.

All of these opportunities are available to fleet management solution providers without the need for significant additional investments. The companies in question are already among the biggest resellers of used vehicles in

Europe, with a large, guaranteed supply of cars. Furthermore, their unique knowledge about the exact history of the car - current condition, repair and maintenance history, previous owners, and so on - gives them a powerful lever for gaining customer trust. And in the historically non-transparent used vehicle market, that level of trust could prove crucial.

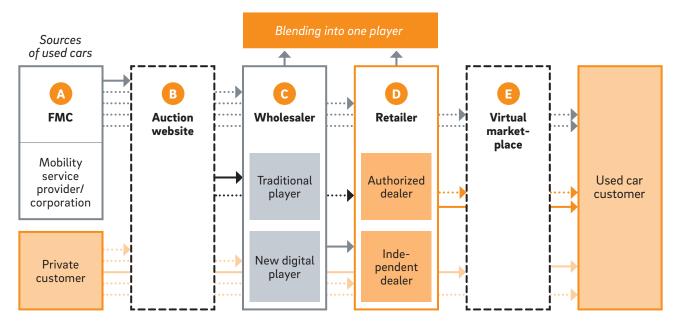
Traditional leasing and fleet management companies such as ALD, Arval, Alphabet and LeasePlan have realized the attractiveness of this new used car market. Over the past few years they have opened up stationary retail stores and developed online sales platforms to target end customers directly. Their well-established distribution networks, international sales presence and large scale put them in a favorable position to exploit the exciting new concepts that have arisen in the market.

Besides the classical game of selling cars, almost all key players in the value chain are busily exploring additional profit pools. Auction websites are setting up new white-label auction websites and offering services such as logistics, storage, overhaul and consulting. Wholesalers and retailers are blending into one player, purchasing directly from auctions and B2B sources while operating retail businesses. Virtual marketplaces are offering additional new services such as payment facilitation and rating of vehicles and players. $\rightarrow \underline{\mathsf{E}}$

Moreover, the breaking down of barriers in the used vehicle market allows fleet management solution providers to maximize the resale value of their vehicles by selling them cross-border. Potential for arbitrage arises from differences in local consumer preferences, changing taxation policies, continuous shifts in the balance of supply and demand, and the sheer complexity of international trading. Digital technology makes it easier for skilled players to exploit these opportunities, and internationally operating fleet management solution providers are in a particularly good position to do so. \rightarrow **F**

E: Disruption and disintermediation.

Fleet management solution providers can take advantage of digitalization and globalization.



Source: Interviews with market participants

E: Changing perspectives on residual value.

Remarketing of used cars as additional profit pool.







Source: Roland Berger

Chapter 4:

Six commandments

Be disruptive.

Be flexible.

Be fast.

Be service-centric.

Be digital.

Be strong.

A framework for fleet management solution providers.

Clearly, the megatrends in the automotive industry will have a decisive influence on the business of fleet management solution providers, be they independent fleet management companies, captive OEMs or bank affiliates. We believe that this influence will be positive - at least, as long as market players take the necessary action.

What exactly should fleet mobility service providers be doing in the medium term to develop these opportunities? We have come up with six commandments that together form a framework for developing a strategy for the coming decade and a half. Our recommendations apply to all types of players, although the detail of how they are worked out in practice will differ by type of company.

Be disruptive: Develop new customer segments, pilot different market approaches and do not be afraid to fail in the short term. Independent fleet management companies, currently focused mainly on the corporate sector, should try to attract the private segment, too. Players of all types should seek partnerships with mobility providers, building relationships of trust with them so they can ultimately act as their sole provider of fleet management services.

Be flexible: Pursue agility and flexibility both internally and externally. OEM captives should try to form partnerships with companies in the independent aftermarket for services. Independent fleet management companies should seek to acquire SMEs as customers using a highly local, direct sales approach. Independent fleet management companies and bank affiliates should offer flexible leasing terms like the OEMs already do. All types of players should change their vehicles on a more flexible basis to reflect changing consumer habits. As described in Chapter 3, all players should try to maximize the economic value of their used vehicles, selling where the price is best (including abroad or in different segments) or re-leasing used vehicles.

Be fast: Scale up as fast as possible to sustain your position. Numerous competitors will disappear as a result of consolidation on the market, so this is a game of survival. Players of all types should try to leverage their size and economies of scale by entering more markets.

Be service-centric: Become a true service provider. Change your focus from owning assets to providing services with a clear customer focus. Consider expanding into areas such as logistics, storage, overhaul, consulting, payment facilitation, vehicle rating and the like. Add new services to your portfolio, bundle and customize.

Be digital: Invest strongly in digital solutions. Do your homework on setting up and maintaining a robust IT infrastructure. Connected cars and fleet management solutions are becoming standard, and you must make sure you are not be left behind. Focus on the issues of greatest importance to customers, such as data security. Use personalized data when approaching customers.

Be strong: Identify your core strengths, develop them, protect them and be ready to leverage them in the post-2030 world of autonomous electric vehicles. Key strengths will be knowing how to manage and finance large fleets, maintaining solid relationships with service partners, being able to offer discounts on vehicle leasing where appropriate, serving multinational companies with the same quality everywhere.

SIX COMMANDMENTS NOT ENOUGH?

Too many different fronts to attack at the same time? Too optimistic about the future? It's true that the details will differ by type of company and specific segment served, and the tasks facing fleet management solution providers are many and varied. But we like to bring good news where it exists. And when it comes to the next fifteen years in the fleet management market we believe that there is good reason to be positive. Changes are coming in the medium term: Ignore the naysayers and get ready for an exciting ride.

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WE WELCOME YOUR QUESTIONS, COMMENTS **AND SUGGESTIONS**

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