

It's time to choose **ULEVs**

Discover if Ultra Low Emission Vehicles are right for your fleet
– and how to prove it – in five practical steps



The day of the Ultra Low Emission Vehicle is dawning.

Ultra Low Emission Vehicles, or ULEVs, as far as fleets are concerned, have been waiting for their moment in the sun for some time. Their potential cost and environmental advantages overshadowed by concerns over their range, battery length and infrastructure.

Not any more.

At the end of September 2017, there were 132,540 licensed ULEVs on Britain's roads – five times as many as there were three years ago.

And company fleets are certainly playing their part, with more than two-thirds of UK ULEVs already being purchased by businesses and public sector organisations.

Why this is happening now?

Most of the barriers (both real and perceived) that have prevented organisations from making use of ULEVs within their fleets have fallen away.

The infrastructure is here: The UK now boasts over 14,000 public chargepoints, quelling fears over range anxiety. **And 96% of motorway services have rapid chargers that can charge your electric car up to 80% in just 30 minutes.**

[See our charging map here.](#)

The choice of vehicles is here: Nissan, Renault, BMW, Volkswagen, Hyundai and Tesla all now offer pure electric cars that can do more than 150 miles on a single charge. Which is handy when you consider that the average car trip in the UK is just 8.5 miles.

The government support is here:

From grants and tax incentives, to timely policy changes. HMRC recently recognised electricity as a fuel, ensuring mileage can be reimbursed.

The resale value is (almost) here:

Traditional fuels still hold their value slightly better than ULEVs, but the gap is rapidly closing. And if you lease, rather than purchase, your ULEVs, you won't have to worry about depreciation.

With all of the initial barriers gone, the benefits are shining through. There's never been a better time to find out what ULEVs could do for your organisation.

Building the business case for ULEVs

But switching to ULEVs, for all or some of your fleet, isn't a trivial move. It'll mean new ways of choosing, operating, managing and accounting for your fleet. And it'll make a big difference to your drivers, too. You'll want to be sure there's a solid business case before you proceed.

The five steps

Over the next few pages we'll cover these five practical steps to help you build a business case for ULEVs:

- 1) Checking your goals
- 2) Balancing your fleet
- 3) Calculating the costs
- 4) Financing your plans
- 5) Making your case

The steps will include some simple exercises to establish the soft and hard returns on your ULEV investment.

Completing these steps will help you see if ULEVs are right for your organisation - and how to take advantage of them in the way that makes sense.

STEP 1

Checking your **goals**

Aligning ULEVs with your organisation's vision

The most common reasons for switching to greener vehicles are the cost savings on fuel; the available funding from government grants; the reduced impact on the environment; and the associated public perception of your organisation's green energy commitments. These are all highly compelling reasons to switch.

But at the same time, the ultimate aim of your fleet is to support your organisation in achieving its objectives. If an all-ULEV fleet is out of kilter with those goals, it may not be for you.

For example, you may make heavy use of specialist vehicles for which there is not (yet) a directly comparable ULEV option. Switching to a near-alternative may make sense if one of your priorities is to reduce costs or emissions.

But if your existing specialist vehicles have a direct correlation to achieving your organisation's goals, it may make more sense to stick with them – at least for now.

However, even though it may not make sense to go all-ULEV, you'll almost certainly find benefits from offering alternative fuels as an option, at least for some of your drivers.

Your action:

List the stated high-level goals of your organisation that can be directly influenced by your fleet, in line with the example provided.

E.g. "Reduce carbon emissions by 20% over five years"

1.

2.

3.

(If you are not directly aware of these goals, you may find them in your organisation's Annual Report or Corporate Responsibility Review.)

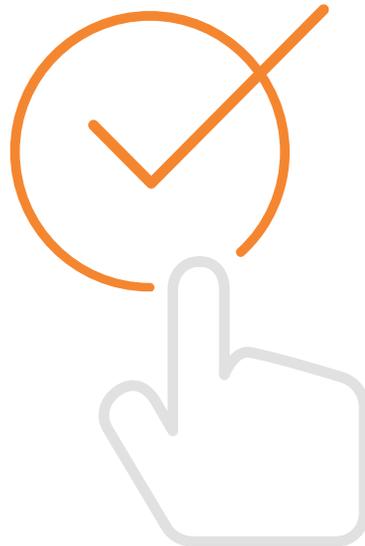
Analysing your fleet needs

The next task is to examine your fleet operations to determine which vehicles are used for necessary, business-related tasks (your 'job need' fleet) and which vehicles are provided as an attractive benefit to employees (your perk fleet).

The type of fleet a vehicle belongs to will have a major bearing on your decision to replace it with a ULEV vehicle.

Your 'job need' fleet are the workhorse vehicles that your employees need to get their job done.

In the table on next page you can list, define and prioritise your objectives for this fleet, along the lines of the examples provided.



“Fleet decision-makers should assess the business benefits of the new breed of ultra low and zero emission vehicles against both the whole life cost and day-to-day operating criteria of their existing vehicles to see if there is a place for them within their transport operation.”

John Pryor, chairman of ACFO

[Find out more](#)

Defining your fleet goals

The priority order you assign to objectives in this table will shape your policy depending on the ideal mix of standard and ULEV vehicles.

Type of objective (people, profit or planet)	Objective	Statement about this objective	Rank this objective
E.g. Profit	E.g. Reduce fleet costs by 10% year on year	We will actively look for ways to reduce our fleet costs each year, without compromising the quality or size of our fleet.	E.g. 3
E.g. Planet	E.g. Reduce carbon emissions by 20% over five years	As a business we are committed to reducing our carbon footprint by 20% by 2020.	E.g. 2
E.g. People	E.g. Keep our workforce safe at all times	We commit to providing our workforce with the safest vehicles in which to carry out their work.	E.g. 1

Defining your fleet goals

Now consider the ways in which ULEVs could support or detract from the top three goals you have identified on the previous page.

For example, if a key priority is to reduce fleet costs, ULEVs could help in a number of ways: from reducing fuel costs to minimising congestion charging.

It is also important to consider the associated infrastructure and maintenance costs to understand which vehicles are more expensive to service and repair.

“We operate a small fleet, and these vehicles have been fundamental in helping bring down our CO2 emissions. We’re very much conscious of the rigorous targets we face; Scotland’s environmental goals are among the most stringent in the world. However, we’re now well on our way to meeting this goal thanks to Automotive Leasing’s endorsement of zero emission vehicles.”

**John Buchan, Head of Estates,
Fife College**

Your fleet goals	How ULEV could help	How ULEV could hinder
1. E.g. reduce fleet costs by 10% year on year	E.g. Lower fuel costs E.g. Government funding / tax incentives available E.g. Avoid London Congestion Charge	E.g. Similar ULEV model costs more to lease/buy E.g. Cost of installing and maintaining charging points

Analysing your perk fleet

Now consider your perk fleet – the vehicles you provide to employees as a benefit, to travel to and from work and between work assignments.

In the table on the right you can list, define and prioritise your objectives for this fleet, using the examples provided as a guide.

Type of objective (people, profit or planet)	Objective	Statement about this objective	Rank this objective
E.g. Profit	E.g. Reduce fleet costs by 10% year on year	We will actively look for ways to reduce our perk fleet costs each year, without compromising the quality or size of our fleet.	E.g. 3
E.g. Planet	E.g. Reduce carbon emissions by 20% over five years	We are committed to reducing our carbon footprint by 20% by 2020.	E.g. 2
E.g. People	E.g. We want our people to feel valued, happy and motivated	We commit to providing our employees with high quality vehicles that make their lives easier and more comfortable.	E.g. 1

The priority order you have identified above will help to shape your fleet policy as regards the ideal mix of standard and ULEV vehicles.

Analysing your perk fleet

Now consider the ways in which ULEVs could support or detract from the top three goals you have identified above.

For example, if a key priority is to make employees feel engaged, ULEVs could help in a number of ways, from ensuring they get favourable car parking spots (reserved for ULEVs), to dramatically reducing their fuel expenses and eliminating congestion charges.

On the other hand, employees who place a high value on top of the range luxury vehicles may not immediately warm to the prospect of switching to a ULEV version (at least not until they realise the breadth and quality of the models now available, and the associated financial benefits in terms of lower fuel costs.)



How LeasePlan can help

LeasePlan has been working with fleet managers across the UK for over five years to analyse the strategic benefits of including ULEV, EV and hybrid vehicles in their fleets. We can work with you to conduct a full assessment of how and where ULEVs might fit within your fleet policy, including detailed projections of the associated financial savings and emissions reductions – and how these benefits align with your organisation’s broader strategic objectives.

Your fleet goals	How ULEV could help	How ULEV could hinder
1. E.g. reduce fleet costs by 10% year on year	E.g. Lower fuel costs E.g. Government funding / tax incentives available E.g. Avoid London Congestion Charge	E.g. Similar ULEV model costs more to lease/buy E.g. Cost of installing and maintaining charging points

CASE STUDY

Edinburgh College

Edinburgh College has used Electric Vehicles in its fleet since 2011. Sensing an opportunity to reduce fuel costs and cut CO₂ emissions, the college initially leased four electric vehicles as pool cars to enable teaching staff to travel between its three campuses in the Edinburgh area.

In those days the choice of pure electric vehicles was minimal (in fact the Mitsubishi MiEV was the only one available) and chargepoints were in short supply. Not to be deterred, Engineering Curriculum Development Manager Ross Milligan tasked his students with designing and constructing chargepoints for use at each campus.

Ross also realised that, as an early adopter of an EV fleet, Edinburgh College was ideally placed to gather data about the fleet's use and benefits that other businesses considering a move to ULEV vehicles could find useful. So from day one, the fleet was fitted with GPS-based telematics to track everything from journey lengths to driver behaviour.

Later in this workbook, we'll share some of the results and experiences that Edinburgh College have seen during the years it's been running a growing EV fleet.



“We have been making great strides with the electric vehicle fleet thanks to the support of staff and partners including SEStran, Energy Savings Trust, Automotive Leasing, and Alex F. Noble & Sons Nissan. The vehicles are well used and well-liked by staff and are making a significant contribution to the college's sustainability aims.”

Bob Murphy Public Sector Fleet Manager of the Year - Green Fleet Awards (2015)

STEP 2

Balancing your **fleet**

Pure Electric Vehicle or Plug-In Hybrid?

Once you've made the decision to use ULEVs for at least some of your fleet, the next step is to understand which types of vehicle are most appropriate for your needs, and which type of driver or task they are best suited to.

This section will help you evaluate the relative merits of pure EVs and Plug-In Hybrid vehicles, to give you some insight into how your fleet could be rebalanced to include more ULEVs.

Consult the vehicle table on page 14 or check out information on www.goultralow.com to help you complete the exercise on this and the following page.



The choice of pure electric vehicle or plug-in hybrid vehicle is a critical one, with a number of factors to consider – from emissions levels to range limits and available subsidies. Use the tables below to compare the relative benefits of different types of ULEV, for your needs fleet and/or your perk fleet.

Choosing the right ULEVs for your needs fleet

	Pure Electric Vehicle (PEV)	Plug-In Hybrid Vehicle (PHEV)
Range Limit		
CO2 Emissions Range		
Commercial vehicle makes available		
Grants available		
Tax incentives available		
Congestion charge exemption		

Pure Electric Vehicle or Plug-In Hybrid?

Choosing the right ULEVs for your perk fleet

	Pure Electric Vehicle (PEV)	Plug-In Hybrid Vehicle (PHEV)
Range Limit		
CO2 Emissions Range		
Passenger vehicle makes available		
Grants available		
Tax incentives available		
Congestion charge exemption		



How LeasePlan can help

LeasePlan can help you choose the right low-emission vehicles, in the right combination, for your needs and/or perk fleets. For example, we worked with Cairngorms National Park in Scotland, which was keen to reduce its carbon footprint by adding an electric vehicle to its fleet. We worked with the Park to identify the right vehicle with the right range for its needs, given that the park is in a remote geographical location.

To help you find the perfect ULEV for your organisation here is a quickoverview of what's available on www.goultralow.com as of February 2018.

* Prices listed are manufacturer recommended retail prices, excluding monthly battery leasing costs and minus available Plug-in Car Grants, as of February 2018.

Model	Type	Zero-emission range	Price (from...)
Audi A3 e-tron	Plug-in hybrid	29 miles	£33,540
Audi Q7 e-tron	Plug-in hybrid	35 miles	£66,510
BMW 225xe	Plug-in hybrid	25 miles	£31,215
BMW 330e	Plug-in hybrid	25 miles	£33,120
BMW 530e	Plug-in hybrid	27 miles	£41,485
BMW 740e	Plug-in hybrid	27 miles	£69,360
BMW i3	100% electric	125 miles	£29,570
BMW i3s	100% electric	125 miles	£32,475
BMW i3 Range-extender	Range-extended electric	205 miles	£32,720
BMW i3s Range-extender	Range-extended electric	205 miles	£35,570
BMW i8	Plug-in hybrid	23 miles	£105,580
Hyundai IONIQ Electric	100% electric	174 miles	£24,995
Hyundai IONIQ Plug-in Hybrid	Plug-in hybrid	39 miles	£24,995
Kia Niro PHEV	Plug-in hybrid	36 miles	£27,995
Kia Optima Plug-in Hybrid	Plug-in hybrid	33 miles	£31,495
Kia Optima Sportswagon PHEV	Plug-in hybrid	38 miles	£32,645
Kia Soul EV	100% electric	132 miles	£25,495
Nissan e-NV200 Combi	100% electric	106 miles	£24,407
Nissan LEAF 2.ZERO	100% electric	235 miles	£26,490
Renault Twizy	100% electric	62 miles	£6,995
Renault ZOE	100% electric	250 miles	£14,245
Toyota Mirai	Hydrogen fuel cell	342 miles	£61,500
Toyota Prius Plug-in	Plug-in hybrid	39 miles	£29,195
Volkswagen e-Golf	100% electric	186 miles	£27,690
Volkswagen e-up!	100% electric	93 miles	£20,780
Volkswagen Golf GTE	Plug-in hybrid	31 miles	£28,135
Volkswagen Passat GTE	Plug-in hybrid	31 miles	£34,515
Volkswagen Passat GTE estate	Plug-in hybrid	31 miles	£36,115
Nissan e-NV200	100% electric	106 miles	£17,256
Renault Kangoo Z.E.	100% electric	170 miles	£10,177

CASE STUDY

Edinburgh College

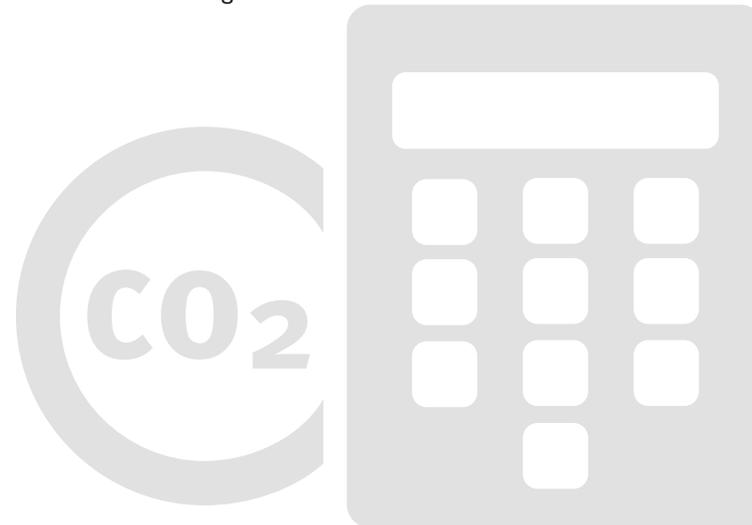
Edinburgh College knew from the outset it wanted to go with pure electric vehicles rather than hybrids. The EV pool cars were for the use of staff travelling between campuses – distances where no journey would be more than a few miles, so there was no chance, even in 2011, of a vehicle running out of power during a journey.

The results:

Confident that EVs would fit the bill, and having designed, built and installed its own charging points at each campus, the college could simply start racking up the benefits. Those benefits have included:

- Significant reduction in mileage costs as 600 registered staff now use the EVs to travel between campuses and on other short work trips.
- Peace of mind, knowing cars used for work purposes are properly insured, functional, serviced and maintained (reducing grey fleet risk)
- Helped the college to enforce its sustainable travel policy and reduce its carbon footprint: since 2012 it has saved the equivalent of 50 tonnes of CO₂ emissions.

When Edinburgh College compared fuel and mileage costs of its five EVs against petrol cars over a 12 month period it found that the cars had collectively travelled 69,400 miles which would have cost £7,600 in unleaded fuel, translating to £31,230 saved in reimbursed mileage expenses. By contrast, the electricity consumed by the EVs cost up to £1,508 for the same period – demonstrating enormous savings.



STEP 3

Calculating the **costs**

One of the main objections to ULEVs has been the perceived high cost of upfront purchase. It remains true that many ULEV models are more expensive to purchase than petrol or diesel counterparts, which may initially seem offputting.

In addition to upfront purchase costs, you will want to consider all of the cost elements of EV usage, including:

- Installation of parking spaces and chargepoints
- Outright purchase price of the vehicle
- Residual value on selling the vehicle
- Fuel/mileage costs vs petrol and diesel vehicles

You can use the table on the right to compare the costs of an EV versus a comparable PHEV versus a comparable diesel vehicle for the same employee to get an idea of the whole-life cost of each one.

For more useful information on fleet tax and cost [read our Funding & Taxation Guide](#) produced in association with Deloitte.

	EV Make, model	PHEV Make, model	Diesel Vehicle Make, model
Upfront vehicle purchase costs	e.g. £12,000		e.g. £10,000
Projected annual deprecation %			
Chargepoint installation costs			
Grants available			
Tax incentives available			
Congestion charge exemption			
Capital allowances			
VAT recovery			
Corporate tax relief			
The cost of borrowing money			
Employer Class 1A national insurance contributions			
Cost of service, maintenance and repair			
VED (road tax)			
Insurance			
Leasing: the effective lease rental			

“Many businesses struggle to capture all their costs in one place. But it is critical to measure, monitor and manage what is really happening. Whole life cost management is a continual process of review, and using them will deliver benefits to employees and the business.”

Mike Brazel, specialist consultant (funding and taxation), LeasePlan

STEP 4

Financing your **plans**

Once you have an idea of the whole-life cost of an ULEV, it's time to explore the financing options. You'll want to look at government grants, as well as tax and national insurance incentives. And you'll certainly want to explore the cost implications of leasing vs. outright purchase.

Grants and incentives

One of the most attractive aspects of incorporating ULEVs in your fleet is the availability of grants and incentives to boost the uptake of clean energy and sustainable transport.

Checklist

When exploring your funding options, don't forget to:

Investigate government grants

Talk to your environmental officer – they should have up to date knowledge of the grants and funds available

Talk to your leasing provider – they should be able to advise on the grants available and work out which ones are the most appropriate for you



How LeasePlan can help

If you'd like help working out the best financing arrangements, talk to LeasePlan. We can help you work out the right financing plan for your aims and needs, and we can help you understand and claim the available grants and funding.

Leasing vs. outright purchase

Leasing not only removes the upfront purchase cost, it also removes the issue of lower residual value, since the leasing company bears this risk. And if you find that one vehicle is proving less popular with staff, or a newer, more attractive model comes out, with leasing it's easy to switch or upgrade.

Watch the Lease V Purchasing Video [here](#).

	Contract hire	Finance lease (fully amortised)	Finance lease (with balloon)	Contract purchase
What is the upfront payment/deposit?	Typically 3 months advance rentals (c.8% of vehicle cost)	Typically 10%-15% of vehicle cost	Typically 10%-15% of vehicle cost	Typically 3 months advance payments (c.8% of vehicle cost)
Who owns the vehicle?	The leasing provider	The leasing provider until the final payment is made	The leasing provider until the final payment is made	The leasing provider until the final payment is made
Typically, who meets maintenance costs?	Leasing provider (assuming optional maintenance agreement is taken)	The company	The company	Leasing provider (assuming optional maintenance agreement is taken)
Who retains the residual value risk?	The leasing provider	The company	The company	The leasing provider
Typically who is responsible for administration of the car? e.g arranging road fund license and disposal	The leasing provider	The company	The company	The leasing provider
Does the company own the car at the end of the contract?	No, it is returned to the leasing provider	No, it is sold to a 3rd party	No, it is sold to a 3rd party	Yes, subject to making the final payment
How does the company claim tax relief for car costs?	Monthly rental can be offset against profits for tax relief	Monthly rental can be offset against profits for tax relief	Monthly rental can be offset against profits for tax relief	Tax relief is provided via capital allowances
Can the company recover VAT on the rentals/ payments made? ⁽¹⁾	Yes, subject to a 50% restriction	Yes, subject to a 50% restriction	Yes, subject to a 50% restriction	No
Can the company recover VAT on an optional maintenance agreement?	Yes, 100% of VAT can be recovered	Yes, 100% of VAT can be recovered	Yes, 100% of VAT can be recovered	Yes, 100% of VAT can be recovered

¹⁾ Assumes that the car is made available for private use.

CASE STUDY

Edinburgh College

When Edinburgh College was looking at introducing a fleet of electric vehicles, it turned to their Regional Account Manager at LeasePlan. It was unsure how the vehicles would be received, so a short lease was a more attractive option than purchasing its initial four EVs outright.

As it turned out, the original electric vehicles were soon superseded by more attractive models that staff preferred, so the college was able to return the first vehicles after the term had ended and replace them with new ones that have proved very popular.

In addition to the leasing route it took with LeasePlan, the college was also able to secure match funding from the Scottish Government's SEStran sustainable transportation initiative to fund the leasing of the vehicles.



“I want to encourage more fleets to be bold and see the benefits that electric cars could bring. Green fleets don't just enjoy financial incentives and tax breaks. They also project a positive corporate image to the outside world. And employees love them.”

**Andrew Jones MP, former
Parliamentary Under Secretary of
State at Department for Transport**

[Find out more](#)

STEP 5

Making your **case**

As you should have discovered from working through this book, there is now an extremely compelling argument for replacing at least some of your fleet with ULEVs.

Your challenge now is to present the case to senior management – and to the people who – ideally – will be driving your new fleet of ULEVs.

Use the checklist below to make sure you're covering all the relevant points in your case to senior management:

Checklist

How the use of ULEVs will enable the organisation to meet its strategic goals	<input type="checkbox"/>
The most appropriate balance of ULEVs and petrol vehicles across the fleet	<input type="checkbox"/>
Projected cost savings and costs avoided from the use of ULEVs	<input type="checkbox"/>
Projected carbon footprint reductions from the use of ULEVs	<input type="checkbox"/>
The PR and CSR value of a ULEV fleet	<input type="checkbox"/>

Use the checklist below to make sure you're covering all the relevant points when communicating the benefits of ULEVs to your company drivers:

Checklist

The range and quality of makes and models available	<input type="checkbox"/>
The availability of chargepoints and attractively-sited parking spaces	<input type="checkbox"/>
The cost reductions they can expect	<input type="checkbox"/>
The ease of test-driving and choose an EV	<input type="checkbox"/>
The opportunity to "do their bit" for the planet	<input type="checkbox"/>



How LeasePlan can help

LeasePlan Consultancy Services can undertake a complete whole life cost analysis and environmental audit to help you choose the right options for your organisation.

CASE STUDY

Edinburgh College

While Edinburgh College saw that the business case for using EVs was watertight, it did find that different makes of vehicle had differing levels of attractiveness to college staff.

Its leasing arrangement with LeasePlan enabled it to experiment with different makes and models until it found a combination that met the college's cost saving and environmental objectives, while providing an attractive, high-quality driving experience for its drivers. The success of its approach is borne out in the fact that today, 600 of the college's 1,300 staff have now signed up to use the EVs, and usage is climbing year on year.

“As a government, we have demonstrated our long-term commitment to ultra low carbon motoring. We are investing £500m between 2015 and 2020 to support the plug-in vehicle grant, expand the charging infrastructure, and boost the electric car industry...

By 2020, we expect ULEVs to make up to 5% of new UK car registrations. By 2040, our aim is that all new cars sold in this country will have zero tailpipe emissions. And our ultimate goal is to make almost every car on the road ultra low emission by 2050.”

Andrew Jones MP, former Parliamentary Under Secretary of State at Department for Transport

[Find out more](#)

Conclusion

The advances of the past few years, combined with the available funding options, means there's now every reason to seriously consider ULEVs for all or part of your organisation's fleet. And the benefits of using ULEVs are so compelling – from the significant cost savings to the reduced environmental impact – that the earlier you start to look at them, the faster you can start seeing value.

We hope this workbook has provided some valuable insight into how ULEVs could deliver significant benefits to your organisation today. If you'd like to talk more about incorporating ULEVs into your fleet, we're here to help. Just get in touch using the details below.

To learn more talk to us:

Tel: 0344 371 8032

Email: newbusiness@leaseplan.co.uk

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Who we are

LeasePlan is one of the world's leading fleet managing companies, with 1.7 million vehicles under management in over 30 countries.

Our core business involves managing the entire vehicle lifecycle for our clients, taking care of everything from purchasing, insurance and maintenance to car re-marketing. With over 50 years' experience, we are a trusted partner for our corporate, SME, public sector, private and mobility service clients. Our mission is to provide what's next in mobility via an 'Any car, Anytime, Anywhere' service – so you can focus on what's next for you.

leaseplan.co.uk



What's next?