# FUEL USE TODAY

Inefficient fuel use can have a significant impact on bottom line figures. Switching to more fuel-efficient vehicles can cut costs, but further savings can be made by educating drivers to ensure they drive in a fuel-efficient way.

The figures to the left show that although organisations seek a

#### SUPPORT FOR TECHNOLOGY

more fuel efficient fleet, they feel fully electric vehicles are still not practical enough to support their needs. However, as battery DRIVERS' VIEWPOINT range increases and costs fall over the coming years, their use ill be much more widespread. In the meantime, organisations ALL-ELECTRIC VEHICLES WITH THE RANGE AND PERFORMANCE OF PETROL CARS still be reliant on petrol and diesel for the majority of their 70% l fuel needs. the easiest way to save money on fuel is to avoid travel nd promote greater use of WebEx and other virtual BUSINESS DECISION-MAKERS' VIEWPOINT ms across the organisation. However, some travel ecessary. HYBRID CARS ARE A PRACTICAL OPTION FOR COMPANY CARS **67**% % PLUG-IN HYBRIDS ARE A PRACTICAL OPTION FOR COMPA 44% OF COMPANY OF PRIVATE CAR DRIVERS CAR DRIVERS HYBRID VEHICLES ARE A PRACTICAL OPTION FO FEEL TECHNOLOGY IS REDUCING THE 37% NEED TO MEET PEOPLE FACE-TO-FACE PLUG-IN ELECTRIC HYBRIDS ARE A PRA 37% ELECTRIC ONLY CARS ARE A P 27% ELECTRIC ONLY VANS AR TELEMATICS TELEMATICS can b such as drivers wh drop off or frequen cases, it is imperat drivers on more eff include avoiding excessive use or the heater or an conortioning. That need has been identified by nearly a third of respondents to our survey.

## FUEL USE TOMORROW

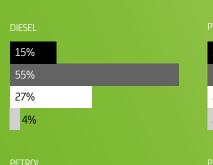
As battery technology in electric vehicles continues to improve and the associated range of electric vehicles increases, their use in the fleets of tomorrow should increase. Future penalties for high emission vehicles and continued incentives for ULEVs should also encourage a greater uptake of electric vehicles, whilst improvements in satellite navigation systems will lead to more efficient journeys.

Organisations do not seem ready to commit to fully electric vehicles over the coming five years, and perhaps opinions about the distance these vehicles can achieve after a charge can explain this view. If organisations continue to rely on petrol and diesel fuels, there will be greater pressure on drivers to drive more efficiently to help keep rising fuel costs under control.

#### **FUTURE FLEET COMPOSITION**

🔲 Increase 📕 Same 📃 Decrease 📕 Don't know

How do you expect the approximate percentage of each fuel type across your van fleet to change in the next five years?



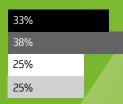


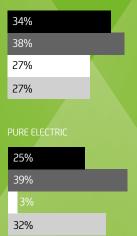
#### STANDARD HVRRID

16%

18%

12%





Satellite navigation is already used to plan efficient journeys, offer warnings of heavy traffic and highlight accidents on proposed routes. Improved technology will make these diversionary route plans even more dynamic to help avoid wasting fuel in traffic jams. This same technology may even suggest using the train or alternative transport which may be quicker. The same technology can also highlight electric vehicle charging points nearby.

#### **ELECTRIC VEHICLES**

Over the next five years, the extension of the national charging network, improvements to the range of models available and the fuel and tax benefits associated with their use means fully electric vehicles will make up a much greater percentage of future fleets.

Any increase will be supported by forthcoming regulation announced in the Government's 2016 Autumn Budget announcement. This will see:

- the removal of salary sacrifice tax and employer NI advantages on all but Ultra Low Emission Vehicles (ULEVs) after April 2017
- lower tax bands for the lowest emitting ULEVs from April 2020
- an extra £80m of funding for the UK's charging infrastructure
- an additional £40m of grants to support charge points for electric vehicles, as well 100% capital allowances until at least March 2019 for those organisations installing them.

Some vehicles already offer a 250-mile range, while the latest Tesla models can travel for nearly 300 miles without charging. Other manufacturers have also invested heavily in research and development with a number of new electric vehicle models due to be launched in 2018 with improved performance. This includes the Jaguar I-PACE. Advances in battery technology should also improve distance and reliability.

Rapid AC and DC charging stations have also started to appear on an increasing number of service stations and other locations across the UK. These will gradually become even more common and already more than 640 rapid AC and over 1300 rapid DC charging stations are available (as at January 2017).

Many of these have been installed as part of a Government scheme which predicts electric charge point locations outnumbering traditional fuel stations by 2020, if not sooner. Rapid charging points can provide an 80% charge in under 30 minutes, thus making long-distance journeys in an electric car much more feasible, especially when supported by apps and satellite navigation which highlight charge points to help route planning. Connected technology and software will also help vehicles avoid traffic jams, find parking spaces more quickly, plot new and more efficient driving routes in real-time and generally eliminate the excessive use of fuel.

### CO<sub>2</sub> EMISSIONS

There are strict  $CO_2$  emission targets for manufacturers to meet, gradually reducing all new vehicle models to zero emissions by 2050. This will eventually limit new vehicle choice to electric models, and potentially hydrogen fuel cell vehicles.

### **ENHANCED PERFORMANCE**

Improved performance will also result from improvements to vehicle specifications and accessories. More efficient gearboxes already allow up to nine gears for cars, while improvements to lightweight materials and new and improved smart systems, such as stop/start alternators, will further enhance the ability to bring fully electric vehicles into a business fleet.

Organisations who continue to rely on petrol and diesel engines for their vehicles will need to keep an eye on <u>emission and taxation</u> regulations set by the Government.

### **AUTONOMOUS VEHICLES**

Automated driving technology will help improve fuel efficiency in a number of ways, primarily by reducing battery usage on fully electric vehicles and petrol/diesel on hybrids.

Automated vehicles will be programmed to consistently drive in a fuel efficient manner, avoiding speeding and excessive braking/ acceleration. At a minor level, automated vehicles will be able to execute certain manoeuvres, such as parallel parking, first time. This eliminates the fuel wasted when a driver tries to achieve the same result in several attempts.

#### CALL TO ACTION

- An organisation needs to consider which fuel technology best meets its needs. Long distance driving might still be best suited to diesel, petrol or full hybrids, whereas electric will be more attractive for urban driving. Plug in Hybrid vehicles could be the best choice for a mixture of long and short distances.
- The electric charging network is expanding and the battery range of electric cars is increasing, so they will be a much more viable option for fleets in the near future.
- More efficient engines and self-driving aids will reduce fuel use and CO<sub>2</sub> emissions, but they still need to be supplemented with staff training in efficient driving behaviour.
- Drivers should be informed to source cheaper fuel if possible, perhaps by using satellite navigation to find the cheapest petrol locally.
- If the fleet contains plug in hybrid vehicles, drivers should be told to keep them topped up with electricity to reduce petrol/diesel use.
- Drivers may need education on how to optimise fuel through more efficient driving practices.
- Installing telematics could save money on fuel by providing information on inefficient driving habits, providing the opportunity to identify drivers who would benefit from training, and by giving access to optimised routing to help drivers avoid congestion in real time.