

**“ A BIT IN THE GREEN
OR A LOT IN THE RED:
THE DANGERS OF NOT RUNNING AN
ENVIRONMENTALLY FRIENDLY FLEET”**

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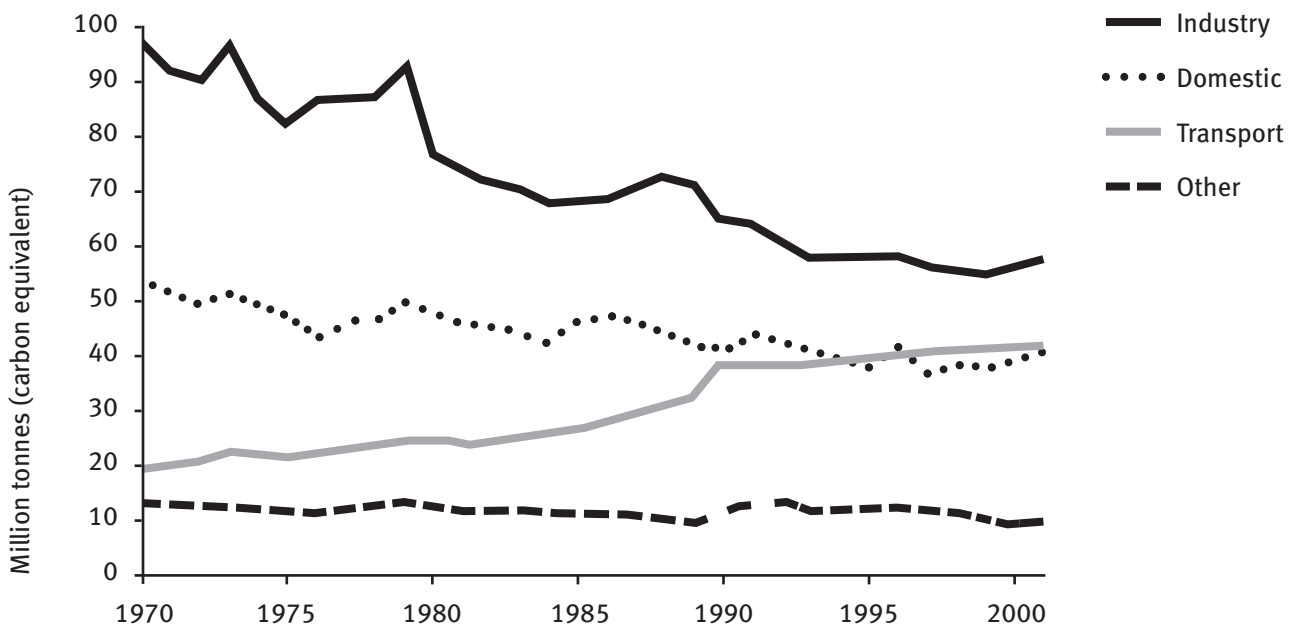
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Carbon dioxide (CO₂) emissions, primarily generated by the burning of fossil fuels, are said to contribute around 85% of the ‘greenhouse gases’ produced by the UK – gases that are allegedly responsible for global warming. According to the Met Office, “there is good scientific evidence that the Earth’s temperature is rising and that most of the warming over the last 50 years has been caused by human activities”.

So what are these “human activities” that have led to an increase in CO₂ emissions? The chart below identifies the major culprits:

CARBON DIOXIDE EMISSIONS BY END USER: 1970 TO 2001

Source: The Environment Agency/NETCEN



Although it has decreased considerably since the 1970s, industry remains the main producer of CO₂ in the UK. Perhaps more worryingly, during this same period, transport emissions have doubled, mainly due to the increase in road and air traffic.

According to the Department for Transport’s Cleaner Vehicles Task Force Strategy, in 1997, “road transport accounted for around two-thirds of all national emissions of four of the eight pollutants for which objectives have been set by the

Strategy; namely, benzene, 1,3-butadiene, carbon monoxide and lead”.

There is little doubt that organisations running fleets of cars or commercial vehicles have had a lot to deal with in recent years, and the environmental impact of business motoring is a growing concern. At a time when public sector bodies and businesses alike are under the microscope to prove their green credentials, the thousands of vehicles they operate have naturally been the subject of considerable attention.

KYOTO PROTOCOL

The source of much of this attention has been the EU and UK's participation in the 1997 Kyoto Protocol. It is an agreement that sets targets to reduce the amount of greenhouse gases emitted by subscribing nations. These emission targets have become international law for those who have ratified the protocol.

Under the Kyoto Protocol, the UK has a legally binding target to reduce emissions of six key greenhouse gases (including CO₂) by 12.5% (relative to the 1990 level) by 2012. It also has a domestic goal to cut CO₂ emissions by 20% below 1990 levels by 2010.

The Kyoto Protocol has led to other commitments that are of immediate relevance to fleets. Under the terms of a 1995 voluntary agreement, the EU and the motor industry set a CO₂ emissions target for all new cars sold in Europe in 2008. By that point, it wants the average output of all new cars to be 140g/km, which would be the equivalent of an economy rate of 55mpg.

COMPANY VEHICLES

Company cars and commercial vehicles have a major role to play in bringing about the changes ordered by the Kyoto Protocol. One key factor is the move away from higher-polluting petrol vehicles to diesels with generally lower CO₂ emissions.

The shift has been encouraged by the government through the emission-based tax regime, and can be highlighted by the fact that in 2001 the cars leased to clients by the LeasePlan group were made up of 65% petrol and 34% diesel (with 1% other fuel types). By 2005 that had shifted to 70% diesel, 29% petrol and 1% alternative fuels.

Around 14% of the cars on UK roads are company vehicles, and the changing fuel profile of fleets is helping to reduce their total emission profile. However, it is worth noting that for most businesses, their vehicles will be the second highest source of CO₂, coming second only to the emissions generated through the running of their premises.

That being so, there is no question that organisations are under considerable pressure to 'green' their vehicles. In addition to legislative and political factors, the growing push towards corporate social responsibility (CSR) has led many firms to review their fleet policies and adopt more environmentally-friendly operations. A greener fleet is one factor that can be used to demonstrate a commitment to CSR.

There are a number of organisations that have been set up to help UK fleets reduce emissions and become more environmentally aware. These include the Energy Saving Trust (EST), the Carbon Trust and the Low Carbon Vehicle Partnership.

However, their success to date has perhaps not been as notable as the government would have hoped. This is due in part to the removal of grant schemes such as the Powershift Grant – an EST initiative offering a £500 grant to buyers of environmentally friendly vehicles to offset the initial expense. This scheme was ended on 31st March 2005 because it contravened EU rules on funding aid, and as yet there has been no confirmation of a replacement.

These bodies and other experts have dedicated hundreds of column inches to pointing out the many benefits of making a fleet greener. The other side of that argument dictates that not doing so will leave businesses and public sector bodies open to serious negative consequences.

THE DANGERS OF NOT GOING GREEN

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The pressure on organisations to reduce emissions comes from a combination of political targets, compliance with EU Directives and the fact that companies can use their environmental record as a method of differentiation.

Given the ever-increasing importance of environmental responsibility and the fact that a fleet is one of the most visible producers of emissions, making fleet policies greener and encouraging more environmentally friendly vehicle selection is rising up the board agenda. There are a number of areas where a failure to improve a fleet's emissions profile can cause unnecessary problems:

I. PUBLIC SECTOR TARGETS

So far, the UK public sector has borne the brunt of the pressure to make fleets more environmentally friendly. All central government departments have committed that, by 31 March 2006 and against a baseline year of 2002/3, they will reduce road transport vehicle CO₂ emissions by at least 10%¹. This is to be achieved through any combination of:

- Reducing total business vehicle mileage
- Improving the average fuel efficiency of vehicles
- Reducing total fuel consumed

In addition, by the end of March 2006 at least 10% of all departments' fleet cars are to be alternatively fuelled and all departments are to reduce single occupancy car commuting by 5%.

Bold targets, certainly. However, the government's Sustainable Development Strategy has already come under close scrutiny. According to the commentary published by the Sustainable Development Commission in December 2005², a good number of departments are taking on alternatively fuelled vehicles (Culture, Media and Sport is leading the way, with 85% of its fleet now using alternative fuels).

However, two-thirds of departments failed to report on the amount of fuel they used in 2005 and there was "poor" data on CO₂ emission reduction. It appears that many government fleets could be in imminent danger of failing to meet their targets.

As a number of public bodies are likely to receive extra funding if they make good on their environmental promises, failure to do so could have serious financial repercussions.

¹ Sustainable Development in Government (SDiG) Report 2005

² "Leading by example? Not exactly..." SDC commentary on the SDiG Report 2005

II. COMPANY CAR TAX AND ROAD PRICING

As for the private sector, the main pressure to reduce vehicle emissions comes from the Inland Revenue and the Benefit in Kind (BIK) tax regime on company cars. This tax structure, which replaced the old mileage-based system in April 2002, is based on the vehicle's CO₂ emissions and was designed to encourage employees to take cleaner cars with a reduced tax burden.

In fact, due to poor communication of the new system, many employees now believe that the tax on a company car has gone up. This is often only the case for high-emission vehicles, of which there are fewer on the roads each year as manufacturers improve their marques' environmental profiles.

The BIK tax on 'free' private fuel – where employers pay for personal fuel used by employees – has also changed so that it is based on vehicle emissions. However, the system encourages unnecessary private journeys as drivers strive to ensure that the cost of private fuel provided is greater than the tax liability of the 'free' fuel benefit.

Road pricing schemes

In addition, road pricing schemes such as the London Congestion Charge are generally weighted in favour of low emission cars.

The London Congestion Charge obliges motorists entering the zone (between 7am and 6:30pm Monday to Friday) to pay £8 per day. Low emission alternative-fuelled vehicles are exempt from the charge, which has already brought about an increase in drivers and fleet managers opting for LPG/CNG conversions.

Commuter use of increasingly environmentally-friendly buses is also expected to rise because of the charge. The move has been made primarily, as the name suggests, to combat traffic congestion within the city centre. However, environmental benefits are already coming to the fore.

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III. DRIVERS USING THEIR OWN CARS FOR BUSINESS

Following the tax change of 2002 many employees have opted to take a cash alternative instead of a company car. Government figures show that the number of individuals paying BIK on a company vehicle is currently around 1.3 million, a drop of 300,000 from the figure four years ago.

However, if drivers buy vehicles themselves, with no tax encouragement to choose low-emission models, the environmental profile of the UK's road users is unlikely to improve. The latest available data³ indicates that average CO₂ emissions from new passenger cars in the UK have fallen by 9.7% between 1997 and 2004, but 56% of the new car sales in 2005 came from fleet buyers. Research carried out by LeasePlan has identified that 35% of employees that opt for a cash allowance go on to purchase a used vehicle. In general, these tend to be more polluting and less well maintained than the company car alternative. This naturally has an environmental impact, but can also carry duty of care implications.

As a result, the tax change designed to encourage the take-up of company cars by employees has seemingly backfired. Although company cars are almost always newer, safer and greener than any privately-owned vehicle, those who have opted out, because of the perceived higher tax burden, will often use their own vehicles for business purposes.

But both the government and employers are keen to move employees back into company cars. For example, one banking group recently launched a scheme encouraging thousands of employees who currently have a cash option to move back into company cars. It covers all eligible staff, including 3,500 who currently fund a vehicle under the existing employee car ownership scheme (a programme whereby employees receive funding for a car that they actually own themselves).

Still a perk

A final point to highlight in this area is that company cars are still a powerful perk and employee benefit, often ranked number one in employees' wish lists of the benefits they most desire. That being so, some drivers may feel that if they keep a company car they will be pushed into owning a greener vehicle and may lose out on acquiring the aspirational vehicle they have been working towards.

The truth is that vehicle manufacturers, keen to retain the fleet business that is the mainstay of their UK sales, have adapted their design methodologies accordingly and now produce models with lower emissions than ever before – without sacrificing appeal or performance. For example, a few years ago a low-emission Jaguar was unheard of; today drivers can now get diesel-engine Jaguars with emissions levels markedly lower than the models available in the 1990s – and it is rumoured that a hybrid-engine model, unthinkable just a few years ago, will be seen shortly.

³ Source: Society of Motor Manufacturers and Traders (SMMT)

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IV. CORPORATE ACCOUNTABILITY

Corporate Social Responsibility (CSR) has been one of the primary corporate buzzwords of the past decade. Its exact definition changes from expert to expert, but most would agree that it involves companies demonstrating that they are giving something back to the environment and the community.

Given the importance of CSR, a business that does not demonstrate a commitment to environmental best practice is opening itself up to all manner of negative publicity. By reporting on their CSR programmes, companies are able to position themselves as more environmentally and socially responsible.

Environmental reporting

The latest legislative developments are pushing UK companies towards reporting more openly on their environmental practices. The recent removal of the Operating and Finance Review (OFR)⁴ has suggested that environmental reporting was no longer necessary. Environment Minister Elliot Morley has however urged businesses to report on their environmental impact, especially as new Department for Environment, Food and Rural Affairs (Defra) guidelines will make it easier than ever to do so⁵.

Mr Morley noted, "All quoted and large private companies preparing the new Business Review will need to report significant environmental issues. The Business Review represents a significant advance in narrative reporting standards, including those for environmental reporting.

"In addition, these can be used by all companies, not just those that are legally obliged to prepare a Business Review. Indeed, businesses measuring, managing and reporting their environmental performance can save on costs, enhance reputation and reduce risk."

The obvious corollary of this move is that companies who run greener fleets will be able to report on it, and therefore be able to demonstrate their commitment to the cause. As more businesses adopt a wider reporting structure, those whose environmental activities are not up to scratch are more likely to be named and shamed – and vehicles are a prime target for those looking to highlight areas of poor practice.

Given that 'greening' a fleet can be extremely straightforward and actually reduces costs, not doing so is a risk that fewer firms should be prepared to run.

⁴ Announced November 2005

⁵ Announced January 2006

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V. LOSING AN EDGE ON COMPETITORS

For a private sector business, success derives from having a clearly defined competitive advantage over its rivals. A greener fleet may not seem to be an obvious example, but there are situations where it can make the difference between company A and company B winning a new customer.

Public sector business

A case in point is those companies that deal with the public sector and strive to win government business. Public sector Pre-Qualification Questionnaires (PQQs) and tender documents invariably require the bidder to demonstrate its commitment to environmental best practice. Tender questions may often include:

- “Do you as an employer/company recognise and accept a responsibility for providing a safe and healthy environment in accordance with the requirements of current and future environmental legislation?”
- “Do you undertake training of employees in order to provide them with an awareness of factors contributing to environmental effects?”

- “Do you endeavour to use energy efficient plant and processes?”
- “Do you seek to develop new products and processes that will reduce possible adverse effects on the environment?”

Public Sector organisations must themselves give consideration to these questions and ensure they can answer them in the affirmative if their credentials are to be maintained.

Poor practice by proxy

In addition, high-profile businesses in the public eye (retail, banks, etc.) will not tolerate any suppliers whose practices could potentially put them in a bad light. No major household brand will want its suppliers’ vans spotted belching black smoke into the atmosphere – and being accused of poor environmental practices by proxy.

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VI. COST IMPLICATIONS

There still exists a perception among some decision-makers that running a more environmentally-friendly business (and fleet) is an expense to be borne rather than a way to reduce running costs.

The truth is that reducing emissions tallies with reducing costs, and so by not running a greener fleet an organisation could face operating bills considerably higher than they should be.

According to Nigel Underdown of the Energy Saving Trust, a private driver who employs a more environmentally friendly approach to motoring will, as a rule of thumb, reduce his or her transport costs by 20%. This arises from buying a cleaner car that uses less fuel, driving more economically and using the car less.

As you might imagine, these savings are equally applicable to organisations with fleets: it has been repeatedly proven that managing fuel usage and buying more fuel-efficient vehicles will reduce annual consumption by 10% or more.

To put that into pounds and pence, a company running 100 Audi A4 1.9 litre TDi diesels, each doing 15,000 business miles a year, can, if it introduces fuel management, reduce its emissions by 10%, cutting around £12,500 a year off its annual fuel bill.

Effective fuel management can include:

- Ensuring drivers use the cheapest refuelling sites
- Journey planning so drivers do not travel more than necessary
- Introducing fuel cards so that areas of excessive spend can be identified and managed

Fuel generally accounts for a fifth or more of the running costs of a fleet, so not taking steps to deal with it could be seen as disturbingly wasteful.

Reducing fuel usage is not just about buying more efficient cars and employees driving less: vehicle maintenance is an often unnoticed part of the fuel management (and emissions reduction) process, as out of tune engines will burn as much as 10% more fuel than those that are regularly maintained. Even elements such as under-inflated tyres, can have a negative effect on the environmental performance of your vehicle.

VII. CORPORATE LIABILITY

Besides environmental issues, another key concern for fleet operators in recent years has been the growing focus on driver health and safety – and employers’ ‘duty of care’ to employees driving for work. This stems from the publication of the seminal report by the Work-Related Road Safety Task Group in 2001⁶, which highlighted that employers’ responsibility to employees at work extends to any time those employees spend behind the wheel on business trips.

As a result, organisations have come to realise that they are liable for the safety of both drivers and vehicles – and could face legal proceedings if they fail to take adequate measures.

The continuing debate over changes to the law on corporate manslaughter is causing additional concern, with directors potentially being individually criminally liable for fatal accidents caused by their drivers.

From an environmental perspective, many of the measures designed to green a fleet will also help to improve driver and vehicle safety (see table below); and by the same token, failure to introduce these measures could have disastrous consequences.

Compare this with the health and safety issues raised by running older, high-emission cars and vans. Fleets without a suitable policy on keeping their drivers environmentally educated and their vehicles green are more likely to find those drivers involved in costly, dangerous accidents.

| Action | Green Benefit | Corporate Liability Benefit |
|-------------------------|-------------------------------|-----------------------------|
| Fewer trips | Less CO ₂ emitted | Reduced driving hours |
| Driver training | Reduction in fuel consumption | Improved driving techniques |
| Better journey planning | Less miles travelled | Safer journeys |
| Newer vehicles | Cleaner fleet | Improved safety features |

⁶ “Reducing at-work road traffic incidents”, published November 2001

SO WHAT CAN YOU DO?

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With all the negative consequences for organisations that fail to reduce their fleet's environmental footprint, it's no surprise that most are looking for ways to be greener. Some of the options available to fleets include:

Improved vehicle and fuel efficiency

- Review benchmark vehicles
- Remove high-emission cars from fleet policy
- Record and analyse vehicle fuel profiles – identify areas of low and high fuel efficiency for targeted action
- Evaluate potential for the use of alternative fuel vehicles (see page 13)
- Pay particular attention to high-mileage, business-critical vehicles – are they fit for purpose and environmentally sound?

Vehicle care

- Ensure drivers keep vehicles properly and regularly maintained (poorly maintained vehicles are not only dangerous but have higher fuel consumption and toxic emission levels)
- Accident management ensures vehicles are repaired quickly and efficiently, keeping drivers safe and reducing vehicle off-road / hire car costs.

Driver education

- Encourage take-up of low-CO₂ / fuel-efficient vehicles by communicating the financial benefits to drivers
- Educate drivers to carry out basic checks, e.g. incorrect tyre pressure can result in a 3% increase in fuel consumption according to the RAC.
- Ensure drivers understand how to drive in a more environmentally-friendly way, e.g. harsh acceleration from a stop can use up to 60% more fuel, while changing gear between 1500 rpm and 2000 rpm can reduce fuel consumption by up to 15%

Improved travel planning

- Record and analyse business mileage patterns to identify areas of inefficiency
 - Provide guidance on travel planning to help consider the time of travel, best route, location issues and viability of car sharing
 - Provide guidance on transport alternatives, such as videoconferencing. Advise on how to improve the environmental efficiency of core business activities (e.g. should the company look at telesales or e-commerce instead of 'on the road' sales staff?)
-

Offsetting CO₂ emissions

Ensure travel remuneration policies are environmentally sensitive, e.g. high Approved Mileage Allowance Payments – the amount reimbursed to drivers who use their own cars for business trips – encourage excessive mileage

In addition, just as central government departments have committed to offsetting the CO₂ produced during their air travel by April 2006, vehicle fleets can also offset their emissions and become carbon neutral.

Reforestation (tree-planting) schemes are one way in which organisations can ensure that their CO₂ emissions are not held against them. Reforestation projects can qualify under the Kyoto Protocol's Clean Development Mechanism (CDM), where industrialised countries contribute to environmental projects in their non-industrialised neighbours. But projects must be in line with the host country's sustainable-development objectives and must also promote the preservation of biodiversity.

It is generally acknowledged that when areas are reforested and managed sustainably, they can start to absorb significant amounts of CO₂ both in the trees and the soil. However, misinterpretations of a study recently published by

European scientists led to considerable confusion regarding the climate costs and/or benefits of reforestation projects around the world.

Specifically, statements in the media mistakenly drew the conclusion that the positive effect of sequestering CO₂ might be diminished by the accompanying emission of methane. Some media outlets and reporters interpreted the experimental results, obtained in laboratory experiments, and inferred that the effect of reforestation programmes might be counterbalanced by these methane emissions. The researchers stated in reply:

“These estimates...show that methane emissions by plants may slightly diminish the effect of reforestation programs. However, the climatic benefits gained through carbon sequestration by reforestation far exceed the relatively small negative effect, which may reduce the carbon uptake effect by up to 4%. Thus, the potential for reduction of global warming by planting trees is most definitely positive. The fundamental problem still remaining is the global large-scale anthropogenic burning of fossil fuels.”

ALTERNATIVE FUELS

No analysis of making fleets greener would be complete without an understanding of the alternatives available. These include:

- **Biofuels**

The description “biofuel” is a generic term used to describe liquid or gas fuels that are not derived from fossil fuels or contain a proportion of non-fossil fuel. They tend to be produced from crops such as sugar beet for ethanol and rape seed oil or re-processed vegetable oils for biodiesel. Although bio-fuels can be used as road fuels on their own, mostly they are blended with conventional petrol or diesel fuel.

- **Liquefied Petroleum Gas (LPG)**

LPG (or Autogas as it is often called when used as a road fuel) is a well established technology with over four million LPG powered vehicles in use worldwide. For the purposes of storage and transportation, LPG is kept under pressure in liquid form but readily reverts to a gas at atmospheric pressure.

- **Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG)**

CNG and LNG are well established technologies with over 1.2 million natural gas fuelled vehicles in use worldwide. CNG and LNG offer similar environmental benefits to LPG.

- **Hydrogen fuel cell**

A fuel-cell engine consumes hydrogen and air to generate electricity, with heat and water as by-products. Using pure hydrogen, fuel cells produce no carbon dioxide (CO₂) – assuming the hydrogen is also manufactured on a CO₂-free basis. The drawback to fuel cell technology in motor vehicles is that liquid hydrogen needs to be stored in carefully created environments in temperatures of minus 230 degrees celsius.

- **Electricity (hybrids)**

Electric cars are usually powered by batteries that can be recharged nightly. Some, often referred to as hybrids, contain a second fuel source (usually petrol) that can also be used to power the vehicle whilst recharging the electric power supply, should it become too low. The Toyota Prius is the most well-known example of the latter.

UNDERSTANDING THE CHALLENGES

“The limiting factor in the emissions reductions these technologies and fuels can achieve is not the technologies themselves, but their rate of adoption.”

- The Mayor of London’s Air Quality Strategy, September 2002

An oft-heard complaint from the private and public sectors alike is that the technological and distribution systems required to create genuinely green motoring simply do not exist at present.

In recent months the rising price of petrol and diesel has reinvigorated the debate over the viability of LPG. Prices for this particular alternative fuel have remained at around 40 pence per litre for two years, but fleet industry figures have warned of the need for caution thanks to low residual values for LPG vehicles, 25% higher fuel consumption and a limited supply infrastructure.

Even though there are now 1,300 public access LPG refuelling sites in the UK, it is still only around 15% of the entire petrol station network. The development of ever-more economical diesel engines has also kept diesel at the forefront of company fleets and further restricted LPG uptake.

Other alternative fuels, despite governmental encouragement through reduced duty structures and targets for public sector fleets, remain equally unpopular. Biofuels are another classic example of a fuel type that is not used because of its lack of availability to motorists.

On the other hand, petrol-hybrid engines such as that of the Toyota Prius are seeing a lot of interest – fuel consumption and range are exceptional and the car’s performance is sufficient to satisfy even the most demanding of drivers.

CONCLUSION: THE COST TO BUSINESS OF NOT GOING GREEN

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It has become increasingly evident that an organisation's failure to green its fleet has potentially severe repercussions from a financial, social and legislative perspective. What is also apparent is that although there is plenty of unofficial encouragement from the government for the private sector to go green through the company car taxation system, there are as yet no definitive targets for greener motoring such as those imposed on public sector bodies.

Although there is plenty of pro-green argument, vehicle fleets themselves are still rarely seen as a strategic value-add by board directors. Most still persist in seeing them as a cost that can be left to the direction of a transport or fleet manager, even though it is the directors who will generally have the final say in how the fleet is operated and will be held responsible if something goes awry.

With this lack of importance attached to fleet issues and the absence of specific direction on environmental practice from the government, it is no surprise that the level of interest in greening fleets is not as high as it could and should be. There is an undoubted opportunity for the government to improve the 'carrots' that it offers to the private sector to encourage greener motoring.
