

## MOBILE TECHNOLOGY

## Connected cars and fleet apps 'key', report finds

Connected vehicles and more integrated smartphone systems will have a huge impact on the way fleets choose, operate and manage their vehicles, according to the BVRLA's Fleet Technology White Paper.

The report looks at the developments which are most important to the rental and leasing sector, including autonomous driving, safety and big data. The report coincides with the publication of the BVRLA's Fleet Technology survey, which found that 45 per cent of fleets consider themselves to be early adopters of new automotive technology. A further 47 per cent described themselves as taking a cautious approach, while just eight per cent felt they were stragglers in their uptake.

When it comes to the factors influencing driver vehicle choice, connectivity and smartphone integration are set to soar in importance over the next five years, according to the survey respondents. Just 20 per cent



of fleets believe connectivity and smartphone integration is very important at the moment, but three times as many (61 per cent) say it will be very important in five years' time.

Fleets highlighted that driverless cars and alternatively-powered vehicles are the technologies that have the potential to have the greatest positive impact on the industry. Fatigue warning devices were cited as the most important safety technologies for fleets, while futuristic features such as night-vision cameras were among the least important for fleets.

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## ALTERNATIVE FUELS

## UK scientists make hydrogen breakthrough

The UK's Science and Technology Facilities Council (STFC) has announced a discovery that could help make hydrogen fuel easier to roll out to the public. STFC scientists claim they have successfully used ammonia as a hydrogen-containing energy source to meet the challenge of storing hydrogen safely and efficiently in a cost effective way.

When ammonia is 'cracked', or separated into its components, it comprises one part nitrogen to three parts hydrogen. In the past it has taken expensive precious metals to get the best results when cracking ammonia to get hydrogen, but the STFC scientists were able to achieve it by using two simultaneous chemical processes instead of a metal catalyst, so making the process much cheaper.

STFC scientist professor Bill David said: "Our approach is as effective as the best current catalysts but the active material, sodium amide, costs pennies to produce. We can produce

hydrogen from ammonia 'on demand' effectively and affordably. Few people think of ammonia as a fuel but we believe that it is the natural alternative to fossil fuels. For cars, we don't even need to go to the complications of a fuel-cell vehicle."

"A small amount of hydrogen mixed with ammonia is sufficient to provide combustion in a conventional car engine. While our process is not yet optimised, we estimate that an ammonia decomposition reactor no bigger than a 2-litre bottle will provide enough hydrogen to run a mid-range family car."

David Willetts, the UK Minister for Universities and Science, said: "This is exactly the sort of innovation we need for UK researchers and engineers. This breakthrough could hugely contribute to our efforts to reduce our greenhouse gases by 80 per cent by 2050."

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## LowCVP's Andy Eastlake Greener fuels to power the green fleet of the future

Whilst much of the recent focus has been on the support for vehicle technology, I was pleased to see the recent decision by EU Energy Ministers to re-structure and hopefully reinvigorate, the nature of the targets in the EU Renewable Energy Directive for 2020 following the European Commission's proposals on indirect land use change. This decision should help to bring to an end the years of debilitating uncertainty that have dogged the UK biofuels industry and, I hope, will enable the fuels sector to re-engage in the vital effort to decarbonise road transport.

Here at the LowCVP we have been at the forefront of policy formation for fuels for some years and have just released details which set out how the UK can meet the targets for 2020 and proceed on the pathway to decarbonise road transport fuel in the period to 2030 and beyond. The LowCVP commissioned Element Energy to produce two reports earlier this year, which have now been published after extensive stakeholder review. To meet the long term targets we need to virtually decarbonise transport by 2050 and cutting emissions through the full life cycle of fuels and energy supplied for transport is a crucial part of that challenge.

The Renewable Energy Directive's 2020 transport target states that at least 10 per cent of the final energy consumption in transport must come from renewable sources. Our research looked at four of the most promising scenarios to assess the best way for the UK to comply with that target and found that adopting a majority combination of 10 per cent ethanol in petrol (E10) and seven per cent biodiesel in diesel (B7) was the most pragmatic way of achieving the target with the vehicles and infrastructure available now and likely to dominate over the next five years. I like to call this "appropriate ambition". We all must play our part in the low carbon transition, vehicle manufacturers, fuel and energy suppliers and of course all of us as vehicle operators, whilst we also keep the country moving. So in our view increasingly sophisticated combustion engines will continue to be a mainstay of transport for many years and providing those engines with the lowest carbon fuel to burn requires long term planning and policy certainty. Our Fuels Roadmap work also highlights that whilst in the short term the current petrol and diesel fleet dominate transport, it is paramount that we encourage and maximise the development and use of Electricity, biomethane and other advanced renewable options to build the solid foundations for our low carbon future. We will work with all stakeholders now to make this vision of future fuels a reality for everyone.

There's more on the LowCVP Fuels Roadmap and RED Scenarios reports on our website: [www.lowcvp.org.uk](http://www.lowcvp.org.uk) and this will be one of the issues under discussion at the LowCVP Conference on July 15th.

### FURTHER INFORMATION

[www.lowcvp.org.uk](http://www.lowcvp.org.uk) and follow LowCVP on Twitter: @theLowCVP and @aeastlake