

# Driver less cars – the view of the consumer?

N J Greig

Director of Policy and Research IAM RoadSmart, 510 Chiswick High Road, London, W4 5RG

## Abstract

At IAM RoadSmart we share the excitement about autonomous cars – who wouldn't! However over half of the drivers we polled supported concentrating on making drivers safer – among IAM RoadSmart members it was 70%. Driverless cars are still years away but delivering safer drivers can help reduce death and injury from tomorrow. Governments, academics and car makers need to work hard to convince sceptical British and American drivers that autonomous cars can deliver the benefits promised such as a 90% plus reduction in road deaths.

## DRIVERLESS CARS – UK POLICY BACKGROUND

We know driverless cars are coming;

- Pilot studies are in place in three English cities – IAM RoadSmart are on the advisory board in Greenwich and are looking to get involved in Bristol and Coventry/Milton Keynes
- Lorry Convoy trials are promised on English motorways from 2017
- As we speak Volvo are recruiting drivers for a major pilot study in Gothenburg and also in London
- In the UK the government plan legislation this summer “sweep away the regulatory barriers to autonomous driving”
- Google car has racked up over a million miles of testing in the US
- Car makers and new technology firms are scrambling to form alliances
- Volvo are launching trials in London and Gothenburg

The UK Government want Britain to lead the world in autonomous driving and so does IAM RoadSmart. We want to share our expertise to help translate driver's needs for the car makers - so they minimise distraction and confusion and then benchmark their systems against the best human drivers. We want to help translate the technology for drivers as we make the potentially dangerous transition towards ever greater levels of autonomy.

## THE SAFE SYSTEM

Most of you will have heard about the Safe System – it's delivering safer roads in countries such as Sweden and Holland and is now fully endorsed by the UK government and the United Nations. For ultimate safety you need - Five-star cars, on five-star roads, with five-star drivers. The five star cars are here, thank to millions of pounds of investment by car makers and they are getting safer all the time.

The five star road is also attainable – last year Highways England made a step change promise to make most of their roads at least three star and they are investing £15 Billion in new roads by 2020.

But, Five star drivers?? Training and coaching does not attract similar levels of investment in any country. At IAM RoadSmart we believe that better drivers will maximise the benefits of better roads

and cars. Without better drivers it is unlikely that the promised reductions in road deaths of over 90% from new technology can really be delivered

We wanted to find out what the public think about driverless cars, driving, and their desire to continue to do so. We carried out two surveys – one an independent market research survey of 1,000 British motorists, as well as surveying 2,000 of our own members.

### **A FIFTH OF DRIVERS THINK DRIVERLESS CARS ARE A GOOD IDEA**

A fifth (20%) of motorists think that driverless cars are a good idea, with another fifth (22%) saying that they can see driverless cars becoming the norm on the UK's roads.

However, a third (34%) think driverless cars are a bad idea, with under half (45%) being unsure. Half (52%) say that they cannot see driverless cars becoming the norm. Following this, a sixth (16%) of motorists think that driverless cars will be exciting and the norm within years.

When asked when motorists think driverless cars will become the norm, the median time is “more than a decade away” – of which under half (45%) said this.

Interestingly, when told the statement “the driverless car has completed almost a million miles without an accident. With 95% of crashes put down to ‘human error’ there is a strong argument that taking driver control out of the equation could benefit road safety positively”, a quarter (24%) said they agree, a sixth (15%) said that they don't, and three fifths (60%) said that we'll have to wait and see.

A third (32%) admit that they would actually consider using a driverless car – although nearly two fifths (38%) would not and three in ten (29%) are unsure.

### **THE GOVERNMENT AND DRIVERLESS CARS**

A quarter of respondents (26%) think that – like electric cars – driverless cars should be subsidised by the government in the same way. However, there is a mixture of views, as two fifths (41%) disagree, and a third (33%) are unsure.

Of driverless cars, half (53%) think that we should be concentrating on making drivers safer – not just cars. A third (35%), on the other hand, think that driverless cars are a good initiative for the future, and a fifth (20%) think they will help assist everyone to travel and work, in such, helping our busy lifestyles. However, a tenth (12%) brand the idea as irresponsible.

### **ADVANCED CAR TECHNOLOGY – ASPECTS LIKED AND DISLIKED**

The best liked aspects of driverless cars are the following:

- Drivers behind not able to drive too closely to you (90%)
- You as a driver not being able to drive too close to the vehicle in front (82%)
- Overtaking only allowed when it is safe (81%)
- Parallel and reverse parking done automatically and accurately for you (81%).

When asked to talk about their opinion on driverless cars, a good proportion of the comments were based around the potential dangers of the idea and how alien it seems, for example:

*“Why would anyone not want to be in control of their car?”*

*“Would be worried how the car would react in a non-programmed situation.”*

## **THE FUTURE OF CARS**

Once driverless cars become readily available, only a 6% of motorists think that driving a car (that isn't driverless) should be banned by law. In line with this, two thirds (65%) think that human beings should always be in control of a vehicle, and were the ability of driving a car abolished, the key thing that motorists would miss is being in control.

These questions were prompted by a quote:

*“Driving a vehicle is too dangerous for humans and will be outlawed when autonomous cars are proven to be safer”* Elon Musk, billionaire founder of Tesla. (De Zeen magazine 24 March 2015)

Both IAM members and the wider British public don't agree with Elon and neither does IAM RoadSmart.

These results give us confidence that we should be talking to government and car makers about how to deliver autonomy on the driver's terms. In addition to the safety concerns we are also concerned about who owns the data generated by new technology in cars and how safe are they from cyber attack.

## **MY CAR - MY DATA**

Vehicle manufacturers are developing car technologies to track and transmit a range of information.

They control this information flow and can direct maintenance and repairs to selected service providers. When you buy a car, it often includes a clause which approves the transfer of your data to the vehicle manufacturers' proprietary network. As a result:

- You are not necessarily aware when data is transmitted by your car or how your data is used
- You may not be able to opt out when service policies are changed and if you reject the conditions offered you risk losing access to all services;
- You may be solicited for unwanted services;
- Your repair bills may be higher

Since only vehicle manufacturers have direct access to vehicle data, other service providers must either pay the vehicle manufacturer to access it or develop and market their own independent systems leading to higher development costs. Or they could be entirely excluded from the market

When it comes to vehicle data, IAM RoadSmart proposes 3 consumer principles to keep you in control.

- 1) As the owner of your car, legislation should ensure informed consent on access to your car's data and that you retain ownership of the data it produces and control over how it is used for as long as you own the vehicle. And this should not impact the level of service you can expect to receive.
- 2) You should have the right to choose and change your service provider and match the right products and level of service to your needs.
- 3) You should have the right to choose among service providers competing in an open market place and to enable any service provider you choose to access your vehicle data and associated functionalities via an open, secure telematics platform.

The rush to access car data has already started. But it must ensure:

- that consumers understand what data is being shared and how it is used
- there is a choice of validated services from trusted service providers
- and there are open standardised and secure data platforms accessible to multiple service providers

Motorists have the right to fully benefit from their data to improve the driving experience.

## **CYBER SECURITY**

We have already seen the first examples of hacking a car causing crashes or loss of control and this can only get worse. Today's car has in excess of 16 known cyber weak spots through which control can be taken. Who would have thought a tyre pressure monitoring system might allow access to major control functions? New legislation is needed to ensure that the connected car is always connected to just the right people. This will not be easy and could be an expensive challenge for the motor industry.

## **CONCLUSION**

With 60 years' heritage, but very much at the forefront of driver and rider skill development and helping all sectors of society to enjoy their mobility, IAM RoadSmart is uniquely positioned to play a significant role in this fundamental shift as advanced driver assist systems become available to motorists.

Our experience of real world driving behaviours and the importance of the human machine interaction will be invaluable to ensure motorists can fully embrace the benefits of the best our designers have to offer. It is vital the voice of the motorists and their desire to drive is heard by governments and vehicle manufacturers and driving experts should be closely involved in every country when fundamental decisions about the future of driving are considered.

We want to work at the highest levels to ensure that the transition to driverless cars is safe, smooth and embraces the best that European drivers and European engineers have to offer.

As you have heard from our research at IAM RoadSmart we have asked the views of all ages and sectors of society to understand their needs as drivers and riders. We believe it is our role to ensure we support their ambitions, address their concerns and stand up for the voice of the motorist.

## REFERENCES

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