

# New trends

## Sustainable Mobility for Europe

BARRY JOINS US ONCE AGAIN AND GIVES US AN UPDATE ON THE LATEST MOBILITY AND TECHNOLOGY TRENDS FROM HIS HOME BASE IN EUROPE

Mobility, technology and safety are currently getting a lot of attention in Europe. The European Union (EU) recently published its new “Sustainable Mobility for Europe” initiative, with the focus on promoting safe, connected and clean mobility solutions across the EU. Of course, the EU isn’t the only regulatory body looking at these issues and we have all seen reports on the various initiatives from around the world.

With this subject being top of mind in Europe due to the recent publication of the EU initiative and the theme of The National Collision Repairer Symposium 2018, I thought my view from Europe would be an ideal subject to cover in this edition.

Living in The Netherlands, one of the top 10 most densely populated countries

in the world, it is extremely important to manage mobility to meet the challenges we face and to improve safety and traffic flow and reduce emissions. With a population of 17 million people in only 40,000 square kilometres, the issue of mobility is high on the agenda of central and local governments.

### Integrated mobility

The Netherlands, of course, is best known for its cycle-friendly infrastructure and the extremely high usage of bikes for everyday transport. What’s less well-known is how hard The Netherlands works to integrate the activities of central and regional governments, metropolitan regions, public transport providers and the national rail infrastructure provider.

The ambition for 2040 is to have

people travel affordably in a combination of private, shared or public transport and to encourage the sharing of individual vehicles and blur the distinction between private and public transport. In regional areas, the ambition is that transport will be shared and on-demand rather than a scheduled public service or in private vehicles. It is expected that this will be enabled by more digital applications, such as apps and big data, to enable planning and booking journeys door-to-door.

With this focus on the overall transport resources rather than individual and privately-owned vehicles, we must wonder whether car ownership will be forced into decline in the coming years. I see many similar ambitions in various countries around the world, but seriously wonder how realistic it is to ask individuals to give up their private vehicle for a shared approach to transport. After all, leaving your front door, getting into your car and driving to the door of your final destination is so convenient, who would want to give that up?

### Passenger vehicle emission control

From the EU’s perspective, the focus is a little different, with the concentration on road safety and reduction of CO2 emissions, especially from heavy trucks. This focus on emissions has led several countries to announce a ban on cars with internal combustion engines, such as the UK, which will ban them from 2040, with some even speculating that the Toyota Prius will not be permitted. France has also set



a date of 2040 and Germany has indicated it is also considering a ban.

This push to move away from fossil fuels leads to a complete rethink of infrastructure requirements. The most obvious is parking facilities and the charging points required to support such a huge increase in an electrically-powered fleet.

Of the approximately 100,000 electric vehicle (EV) charging points available across Europe today, 76% are concentrated in just four countries (The Netherlands, Germany, France and the UK). At the other end of the spectrum, a vast country like Romania, approximately six times larger than the Netherlands, has only 44 charging points – less than 0.05% of the EU total!

A lack of standardisation in charging equipment is another drawback to making an EV easy to operate. In the attached picture, you can see a charging installation at a local car park with three types of charging cable and a separate Tesla adapter positioned alongside. It is a bit of a challenge if another car is already being charged with the cable you need and, of course, it's not as quick or convenient as refilling the fuel tank.

**Commercial vehicle emission control**

As a major source of CO2, there is significant pressure on the transport fleets of Europe to reduce their emissions, and Europe has led the way in recent years with the development of lower emission truck engines. Now, technology is being utilised to enable “platooning” – several heavy trucks driving in close convoy, linked and governed by automated systems – to ensure collisions do not occur.

The major advantage of driving in such proximity is that the lead vehicle creates a slipstream for the trucks behind, which of course reduces the amount of fuel used. In addition, as they run so close together, the overall space required on the road is also significantly reduced and there is increased safety due to better control of the vehicles. The EU expects to see the introduction of automated driving (truck platooning) on European motorways in the next decade and plans to facilitate this by standardising data exchange between



**Platooning across Europe.**

different truck brands.

**Safety-based technology**

With 25,300 fatalities and 135,000 serious injuries on EU roads in 2017, the EU has a stated ambition of zero fatalities by 2050, which is expected to be achieved through legislation on vehicle safety and on improvements to infrastructure. For passenger vehicles, it is planned to mandate the installation of new technologies such as lane departure warning, alcohol interlock and many other features as standard equipment within the next 10 years.

These features will become compulsory on all cars sold in the EU, ensuring that vehicles are as safe as possible. This mass adoption of what is currently non-standard technology will, of course, drive up the cost of cars for consumers, the cost of insurance and the ongoing cost of future maintenance.

**Autonomous driving technology**

Looking further ahead, the EU's aim is to have all cars connected to the internet by 2022, with a move towards fully autonomous driving by the 2030s. Already, cars are becoming more connected, and with this increased level of connectivity there are both opportunities and risks, one of which is a cyber-attack on a single vehicle or, even worse, a whole fleet. As a result, security of data used in connected vehicles is getting a great deal of attention within the appropriate EU bodies to ensure safe and secure access to vehicle data.

As you can see, technology

features heavily in all the initiatives discussed. It is not just the technology itself that is a key enabler, but also the miniaturisation that has accelerated over recent years. This has made systems lighter, more reliable and much less power hungry, meaning the technology can be reliably installed in smaller vehicles. Without technological development, none of the ambitious plans put forward around the world would be achievable and it could even be argued that, as technology develops, plans are able to be even more ambitious.

We already see technology making an impact to the cars we drive today. In Europe, the most well-known is the Tesla autopilot function, which can drive the car fully autonomously, although having a driver in the driver's seat and “in control” is still mandatory. Recently in the UK, a driver was prosecuted for engaging autopilot on the motorway and then moving over to the passenger seat. Whilst illegal, it does show that the system has potential. In another case from the UK, a Range Rover was involved in a heavy collision and rolled. The police arrived as the driver pulled himself from the vehicle as they had already received an automated call from the vehicle systems at the point of impact.

When fully autonomous (driverless) cars are eventually permitted, there will be some significant impacts on our industry and on the infrastructure around us.

**For example:**

- What will need to change in terms of road layout and roadside facilities?

- Will we still need car parks in walking distance to our end destination?
- Would traffic signals be linked to the cars and actively manage intersections?
- Could car “platooning” be established on motorways?
- Would the speed of these platoons be governed centrally to manage traffic flows?

All are distinct possibilities for the future and all could dramatically reduce the number of collisions each year.

**In summary**

As these changes slowly emerge and become mainstream, there will undoubtedly be a significant impact on our industry. I believe we are all concerned about the impact of the likely reduction in accidents but, in my view, accidents will never be completely eliminated. As cars become even more technologically advanced, with new control systems and more and more sophisticated safety devices, all of these will need to be maintained, calibrated,

repaired and replaced.

This creates an opportunity as the car dealer networks are currently too small to maintain the entire vehicle population. We already see collision repair centres installing parking sensors, calibrating lane departure warning systems and calibrating variable cruise controls, so becoming more technologically focussed is not such a big leap.

There will be challenges in terms of training, access to information and the investment in specialist tools, but the collision repair industry has proven to be resilient and adaptable over the years. I have every faith that we will adapt to this new environment and continue to provide great value to our customers, whatever services we are providing.



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