

# Creating the safety bubble

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I am following a loaded tipper. Its tailgate and sides are emblazoned with bright, clear warnings – ‘Cyclists Stay Back’, ‘Warning Keep Clear’ and ‘If You Can’t See My Mirrors, I Can’t See You’ – all signs of our industry’s best efforts to uphold safety in, on and around our vehicles. We are quite a long way back from the next set of traffic lights and the truck in front of me has already activated his turn left indicator. As we slow down and then stop, five cyclists come up the inside of the queue and take up a position alongside the truck. Worryingly, it looks as if they intend to go straight on. Two are using earphones – so are probably oblivious to any sound going on around them. Yet, this is the scenario which many professional drivers in the waste industry are presented with all day, every day.

These days, safety systems come in all shapes and sizes and perform an ever growing range of functions. But for the purposes of this article, let’s take a look at the really high profile subject of safety and warning systems which address the interface between our trucks and real people – particularly those on bicycles, but pedestrians too.

Surely, it is a road user partnership and each party has to acknowledge each other’s obligations and responsibilities. Sadly however, it is a series of tragic incidents which has served to push the whole subject further up everyone’s agenda. Schemes and initiatives like FORS (Fleet Operator Recognition Scheme) and CLOCS (Construction Logistics and Cyclist Safety) have made a significant contribution towards improved safety.

Our industry has taken a quantum leap forward in recent years, developing systems, harnessing advanced technology, electronics and software to make it pretty nigh impossible for any driver not to know what is going on around him and his vehicle. Importantly also, there are now audio-visual devices to warn any human being, mounted or otherwise, about being in close proximity to the vehicle and within the danger zones.

Actually, systems designed to alert and warn people about vehicle manoeuvring are not new – and who better to ask about the evolution and progress of the technology than the UK industry’s elder statesman of safety and warning systems, Christopher Hanson Abbott OBE (for services to vehicle safety) and still hands on as Chairman of Brigade Electronics plc.

Forty years ago this year, Chris was on one of his regular visits to Tokyo as a ship broker in the Baltic Exchange, when he heard a bleeping sound coming from the rear of a reversing vehicle. In a light bulb moment, he set about tracking down the inventor of the system, as he could see the potential contribution which the device could make to road safety in the UK. Thus came about the long standing relationship between Brigade and Matsusaburo Yamaguchi, owner of YEC.

It is interesting in the context of where we are with vehicle safety and warning systems today that, when I first met Chris all those years ago, the transport industry in general thought he was absolutely barking mad ... no one thought pedestrian or cyclist proximity >



Brigade’s Select 360 system effectively provides a bird’s eye view



Sentinel’s audio and LED cyclist alerter





Cameras can be mounted on wing mirror booms

was a serious problem. However, contrast that with now – and many predict that such systems will be standard ex-factory OE equipment on all new commercial vehicles well within the next decade.

The kit itself seems to fall generally into four categories:

- » Audible warnings which announce the vehicle's intention – i.e. reversing
- » Sensors mounted around the vehicle which trigger audible warnings in the cab of human beings or other objects being in close proximity to the vehicle
- » Camera and dashboard mounted display systems which give the driver a now quite remarkable visibility of everything going on around his vehicle
- » Audible and visual warning devices on the perimeter of the vehicle that seek to alert persons, particularly cyclists, who may be in a danger zone

In-cab warning systems seem to be favouring radar or ultrasonic sensors around the vehicle, which can pick up the general shape and motion of the human form. Clever stuff – as simple obstacle detection could mean that the warning system was running almost continuously.

Then come what are, in my view, the state of the art solutions – and there are several of them out there. These involve very wide angle cameras mounted in strategic locations around the vehicle front, rear and sides. Camera images are then relayed to a sectional display screen in the driver's view. One manufacturer has gone one step further by correcting and 'stitching' the images through specialist exclusive software, which incorporates the vehicle shape as an icon on

the screen. This creates what is effectively a bird's eye view which seamlessly covers all 360° degrees around the vehicle. If the driver activates his turn left indicator, then the screen image will change to give a more detailed picture of the nearside space.

Most of these systems can be coupled up to special hard-drive recorders – and some offer 1TB or 2TB options – and even 3G remote live monitoring. Of course, some drivers fear the intrusion and monitoring – but given that a serious incident, or worse still a fatal, said driver will probably be arrested on the spot and in the subsequent legal processes, that captured live recording of the incident might be absolutely crucial evidence.

So these are just some of the things which our highly technology-driven and professional industry is doing out of its absolute commitment to safety and best practice. But we can only do our bit if our partners on the road do their bit as well – and that needs a massive effort in education. Back in the day, the cycling proficiency test was considered almost mandatory – and the younger you were the better. It saved lives.

Contrast that with everyday life now – with more and more people choosing to commute to work by bicycle – for all the right and laudable reasons – but they must fully and diligently engage with what is going on around them and manage their own risk, creating that safety bubble around them. This is what drivers are taught to do, and it's an important part of advanced driving tuition for car drivers too. We all have to share the same road space – but at least our industry leads the way when it comes to the safety systems which mitigate the potential dangers.

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