Road safety - Leadership, responsibility and coordination - Perceptions and Culture

Introduction

I have worked for over 30 years on a large industrial chemicals site and during that time have witnessed first-hand the transformation in safety practices resulting from the Health and Safety at Work legislation and the work of the Health and Safety Executive. There is now a corporate responsibility to put in place safety systems that work. As a result it is no longer acceptable to leave off the safety guards and blame individuals for accidents under the pretext that they knew the risks. Unfortunately this 'culture of safety' is yet to be applied to the road network as in 2014 we still operate a 'culture of blame'. No example better illustrates this point than the outcome of a court case held in January of this year.   Derek Cozens MAIRSO

Wrong side accident

A 55 year old Polish lorry driver drove on the wrong side of the carriageway killing the driver of a vehicle travelling in the opposite direction. He was given a two and half year prison sentence. In interview Podolak admitted he was on the wrong side of the road. He said he forgot he was in the UK.

The case is solved, justice has been served, the police have taken another killer off the roads but, from a safety perspective, have we just lost the plot? Nothing we can do in the prosecution of this individual will prevent a similar accident occurring tomorrow, the only difference will be that next time it could be a Belgium or Romanian driver or an English family who have just returned from a fly-drive in Florida who end up on the wrong side of the road. We are engineering to a set of ancient regulations with road markings that show the centre line of the road but provide no regular markings along the carriageway to indicate the normal direction of travel. Driving on the continent is far more commonplace than it was back in the sixties when the road marking standards were developed. Our 2014 roads do not have the safety guards in place but, instead of learning from these accidents and rectifying the problems to ensure future accident prevention, we are focusing all the blame on the individuals involved. The road accident investigation procedures conducted by the police were developed from their criminal death investigation manual. They set out to clearly identify the person or persons responsible for a death but crucially they do not set out to identify measures to prevent future occurrences of similar accidents.

In summary what can we learn from this single example?

- We have regulations but we do not have safety
- We prosecute but do not prevent
- We have serious collisions but learn no lessons
- We have a culture of blame focused on the accountability of individuals rather than a corporate responsibility for provision of safe systems

The question

Why have our current road safety practices and bodies failed to address these problems and how can we drive the safety process forward on the roads in future?

What are the issues?

- Wrong side driving is just one of many 'driver error' serious collision causes, swept under the carpet by current road administration and policy.
- Current road safety policies are focused on preventing deliberate acts rather than addressing the causes of driver error
- Roads engineered to the current regulations are considered to be safe
- Road safety organisation is fragmented, no leadership or team
- No process to deliver change except though the lobbying of central government by multiple organisations

What are the obstacles to change?

- The acceptance of the current blame culture
- Policing and the legal process
- Road marking, sign and signal regulations that are enshrined in law
- Responsibility for road safety delivery devolved to the many road authorities
- Lack of a central leadership and direction
- Resistance to change ("it ain't broke!")
- Funding

What might it cost to eliminate these wrong side accidents?

In the 1980's American business guru Philip Crosby introduced his quality improvement process, a method to focus on driving down costs and improving efficiency. This system requires the calculation of the costs to improve quality and have 'zero defects' to be weighed against the ' price of non-conformance', PONC, the costs incurred by having defects.

The PONC Costs incurred in a 'wrong side' accident

- Vehicle damage
- Emergency services costs
- Road closure cost
- Costs of bereavement
- Loss of future earnings
- Costs of future healthcare and support
- Court costs
- Prison costs

Total cost - Potentially £ millions

The 'cost of quality', to achieve 'zero-defects' and prevent the 'wrong side 'accidents

If the road marking specification is amended to include the addition of regular markings along the carriageway to indicate the correct direction of travel, it could have little or no impact on the prices the contractors quote for remarking the roads during routine maintenance and resurfacing.

Total cost - Potentially £ zero

Let's do something new!

While we do nothing new, we can expect nothing new to happen. If Britain's roads are the safest in the world, it is in spite of the way road safety is organised and not because of it. It is now time that we build the team and the leadership the UK needs to drive road safety to a new level. I am therefore putting forward this practical cost effective proposal for a new organisation to meet that goal – The Road Safety Executive.

The Road Safety Executive

www.roadsafetyexecutive.org The Road Safety Executive - a meeting place for the whole road safety community.

How it will work?

This virtual meeting place will bring together all the expertise needed to research and develop new safety solutions. Working as teams, and by learning from real accidents, they will identify new strategies for prevention. Projects will go through the complete cycle from the initial idea to funding and implementation. Under the supervision of the RSE a road safety web site for the general public will be set up and run.

Who will join the RSE?

Membership of the RSE will be open to all free of charge. Its objective will be to promote road safety. An invitation will go to all road authorities and all the associations currently involved in road safety. The aim will be to bring together all the individuals that have an interest in road safety provision with representation from a wide variety of companies, associations and institutions. RSOs located across the country will join up and use the site as part of their daily work. No remuneration will be given to RSE members who will already be salaried in their chosen occupations

The RSE will be different

The RSE will not duplicate or replace any of the existing road safety organisations. It will however for the 1st time bring together the whole road safety community on a daily basis allowing every member to contribute from their desktop. Access to a broad spectrum of expertise will allow this unique association to deliver new safety solutions for the roads.

How will the RSE function?

Every member joining the RSE will log into the site and create their own profile giving details of their occupation, skills etc. The site will utilise the latest web based technology that has been developed for the many world-wide corporations who now conduct a large part of their business with projects run by employees scattered across the globe. The site will evolve under the direction of the members and deploy the latest technology available Participants will be able to join user groups in their own areas of expertise, for example driver training and also take part in the many discussion groups, project 'think tank' groups and other activities taking place on a daily basis across the site.

How the RSE will improve upon the delivery systems

The current model for road safety delivery relies too much upon the government and legislation. The concept that safety improvement can only be made with Central government funding, or changes to the legal framework, lies at the heart of the problem. The underlying philosophy is that we can prosecute our way to safe roads with delivery made through the statute book. By needing new laws we have introduced enormous obstacles and procedural delays to progress. This approach to safety delivery also fails to acknowledge the significant contribution that driver error, rather than any deliberate act, is a major contributor to the level of road fatalities and injuries. The RSE will be a 21st century institution that will deliver 21st century roads by bringing together the entire road safety community to drive forward road safety delivery

Learning from workplace safety

Safety is now number one in the workplace; every process must have a risk assessment and a safe method of working. Regular routine inspection and maintenance of workplace machinery is obligatory. The safety guards are now in place to protect the workers from all types of hazards. Workplace safety has been transformed over the last 40 years because it was entrusted to one central organisation, the Health and Safety Executive HSE, whose mandate from the government gave them the power to implement and enforce workplace safety policy and directives. At almost the same time as the HSE was established, the responsibility for road safety was being devolved to the many different road authorities. As a result of this decentralised management structure, road safety is now decades behind the workplace in the development of effective policy to prevent accidents. Under the RSE road safety will be gain the new central leadership and direction it needs. The government will quickly respond, recognising the RSE as 'safe hands' and give them the assistance they need to drive road safety policy forward. The timescale for introducing new road safety initiatives will reduce from years to months, rapidly allowing the RSE to catch-up with workplace safety delivery.

The public website.

- To engage the public in the road safety process, 'let's work together to make our roads safer'
- An opportunity to provide continuous driver training and development
- Easy access to up to date information and safety advice
- Links to organisations running road safety initiatives

What will it cost to set up and run the web-sites?

Underpinning the provision of the new authority will be a sound business model to cover the day to day running costs of the two sites. A professional services directory accessible to both members of the RSE and also visitors to the open, public side of the site will fund the enterprise. The opportunity to promote products and services to the comprehensive membership who will use the site will be very attractive to a variety of companies. On the public web-site the presence of advertisements and sponsored links on the web pages would provide funding for the site. The RSE would also retain the copyright for any training and information media that it creates and the licensing of these presentations for use by other countries wishing to follow the UK safety model would raise funds for future projects.

Here are just a few examples of potential road safety projects explaining how the new executive would deliver:
Key to its success will be bringing together all parties necessary to be able to deliver change including insurance companies, manufacturers and university research teams.

1. **Eyesight testing**. For many years it has been recognised that poor eyesight has contributed to the level of accidents and that the situation would be solved by regular eye tests for drivers. Representation has been made to parliament to call for the introduction of compulsory tests. Why do we need the rule of law to bring about the desired change? By working with the insurers and the ophthalmic industry, testing could be introduced through the carrot of insurance price discounts rather than the stick of law and prosecution. The RSE could oversee the creation of a driver skills database, a training matrix that is linked to a drivers licence number. One of the database fields will record eyesight tests. Eye tests would be available free of charge at some opticians through the arrangement. The insurance companies would police the eye testing records during policy renewals and they could progressively move from a discount regime to make regular testing a mandatory requirement for insurance cover.

2. **Training**. The driver skills database would be used to progressively introduce the idea of a continuous improvement process for qualified drivers. Training modules would be created that would be available on the public road safety website. These would be short multimedia presentations that provide education on the different subjects. At the end of each section, the candidate would answer simple multiple choice questions that would prove they have been giving their attention to the lesson. Passing the module would create an entry in the driver's record. For newly qualified drivers there could be training on basic vehicle maintenance, tyre inspection and inflation, etc. and for young drivers a course to inform them about issues covered by the 'honest truth' programme, drink, drugs etc. The insurers could make it a requirement for provision of cover that the driver has undertaken certain training.

3. **An MOT for the roads.** Regular routine inspection and maintenance is a necessary requirement for vehicles and should also be a mandatory requirement for the road infrastructure. Road maintenance has become an issue in recent years as funding has been taken away from this vital service. Additional funding has recently been allocated to bring the roads up to an acceptable level of service. This 'boom and bust' cycle will continue whilst funding is a political football. The RSE will introduce a simple system to organise and monitor the nation's roads. They will commission the development of a single central database to record all information on the highways related to google style mapping and GPS coordinates. Data will be imputed to the database via Apps that run on handheld devices. Every street sign throughout the country will have its location and full details entered into the database; this could include sign type, size, illumination type and a risk assessment for maintenance. Annual inspections of each sign would record the fact that it was in serviceable condition, had been cleaned, polished and was free of obstruction by plant growth. A photographic record would be entered into the database with the inspection report. Any issues raised on inspection would automatically trigger remedial actions. The road markings and surfaces would also be the subject of an annual inspection by a competent person. At a glance the RSE would be able to see that all the roads had been inspected and were serviceable. Any authority failing in its obligation to maintain would be quickly highlighted by the system. Regular routine maintenance could be farmed out companies who will competitively tender for the work. The system would make the monitoring of the maintenance company's performance a simple task. A regular inspection routine would encourage the development and adoption of longer life solutions. For example, the current paint road marking systems can wear out within months but are then not renewed for years.

4. **Updating the signs, signaling and road marking systems.** Driver error is the cause of thousands of accidents each year on UK roads. Some of the most serious and tragic accidents are caused by drivers

going the wrong way down a dual carriageway or one way street, or driving on the wrong side of the road but a jail sentence for the guilty party is not the solution. These accidents could be eliminated if we were not still engineering to a set of 1960 regulations. There is a misconception that if road installations conform to the regulations they are safe. The sign, signal and marking systems work to a degree, but do not provide sufficient information to be 100% safe. What is needed is a belt and braces approach to improve junction reliability and eliminate the accidents. Millions of pounds are spent on marking our roads but the vital safety information is missing. We need to develop new road marking standards which will show clearly which side of the carriageway you should be driving on, or if it is a dual carriageway in which direction you should be travelling.

The RSE will seek a mandate to be able to improve and update the Traffic Signs Regulation and General Directions. They will undertake a continuous improvement process called CLEAR, Comprehensive Long-term Engineering Accident Reduction. Focused on eliminating driver error, research projects involving university research departments and manufacturers will develop safer systems for deployment on the roads. These new solutions will deploy the latest technology with the goal of accident reduction. Projects will see the development of improved road marking schemes for carriageways and junctions. Also the design of safer traffic light and pedestrian crossing systems. A cost benefit analysis will show that applying these technological advancements across the entire road network will quickly provide payback against the high cost burden that the accidents present.

The database created by the RSE for road 'MOT' maintenance will prove a valuable tool in enabling the requirement for nationwide upgrades to be assessed. The process of installing in a one off upgrade across the country would reduce the costs though volume manufacture and competitive installation costs. The largest beneficiary of the scheme would be the insurance industry who pays out millions each year in accident claims and compensation. The RSE would be looking to the insurers or sponsors rather than the government to fund the improvements which would reduce delays in deploying new safety schemes. Projects, such as changes to road marking regimes, would take place over a period of time incorporated into road carriageway maintenance schedules.

5. The public website will introduce a RIDDOR process to the roads. The opportunity for the general public to easily report dangerous occurrences on the public highways. Since 1996 reporting of equipment failures and near miss accidents has been an important part of accident prevention in the workplace and it is now time that this process is introduced for the roads. Reporting will be through a road safety App running on handheld tablets and phones. Also on the public road safety website through a google mapping type interface. Dependent on the information entered the reports generated by the system will be directed at the appropriate authority for the location reported. Damage to road infrastructure will generate reports to the relevant maintenance department. Reports of near miss accidents will be directed to the local RSO who will use the reports to identify and rectify the problems before serious incidents occur.

6. Safety equipment for vehicles: The RSE will identify safety equipment provision for all new motor vehicles and work with central government to make these provisions a mandatory requirement. The UK lags years behind the rest of Europe in setting standards to give vehicle occupants safety equipment as standard in vehicles. The rationale behind this deficit is not obvious as the introduction would be clearly beneficial to road safety. Every vehicle could hold high vis vests for all occupants, thermal survival bags, a warning triangle possibly incorporating flashing led technology and a first aid kit. Smart phone technology could enable first on the scene members of the public to administer life saving measures under the remote supervision.

7. Safety information: The public road safety website will provide safety guidance videos to explain current best practice and regulations for information purposes. For example, there would be a presentation on carrying babies and small children in cars for new parents and grandparents to get up to date information on legal requirements, options for child restraints and best safe practice for their deployment. Another presentation on the safe towing of trailers and caravans. A lot of information already exists on the internet; the difficulty is finding it or knowing that it is relevant to the UK and up to date.