



UK Road Safety

SEIZING THE OPPORTUNITIES

SAFER ROADS

A paper for PACTS by Tony Ciaburro and John Spencer



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Authors

Tony Ciaburro was, until May 2017, the Corporate Director for Place Commissioning, Northamptonshire County Council. In this capacity Tony had a wide remit to help make Northamptonshire a safe and secure place to live, work and visit. Tony has worked in local government for 38 years and over this time has been actively involved in a wide range of traffic and transport safety research and the implementation of many new and innovative concepts designed to help improve community safety as part of the Growth Agenda. He is also a Director and Trustee of PACTS.

John Spencer is the Road Safety & Travel Choices Manager for Northamptonshire Highways (KierWSP), the joint venture delivering transport and highway services to Northamptonshire County Council (NCC). John served for 30 years as a police officer with Northamptonshire Police, before joining NCC in 2006. He was instrumental in establishing the police Forensic Collision Investigation Unit, Road Death Investigation Policy and Family Liaison Service for bereaved families.

The opinions expressed in this paper are those of the authors and do not necessary reflect the views of Northamptonshire County Council, Northamptonshire Highways, KierWSP, those consulted, PACTS, Rees Jeffreys Road Fund or the Road Safety Trust.

Summary

Despite the constant assertion that the safety of the UK road network rivals the very best by international standards there is growing concern among local authorities that the downward casualty trend of recent years is showing signs of stalling towards a plateau. It is impossible to apportion any particular causation factor to this trend but it may not be coincidence that greatly diminished road safety engineering, education and enforcement activity since 2011 is having some detrimental effect.

‘Road safety is a matter of national importance’ states Andrew Jones, Road Safety Minister. This reassuring declaration introduces the government’s latest visions, values and priorities in the *Working Together to Build a Safe Road System - British Road Safety Statement* published in December 2015.¹

The reality for local authorities, however, is that road safety has to compete for funds and priority with other local services that are deemed of greater urgency – child protection, adult social care, etc. Yet in virtually every authority the number of people killed or seriously injured on the local roads will far exceed those who come to serious harm through neglect or in care.

The British Road Safety Statement takes us into the next significant phase of casualty reduction in Britain by setting the short, medium and long term agenda. It is mainly aspirational but unlike its predecessor, The Strategic Framework for Road Safety,² it recognises the importance of engineering interventions with particular emphasis on the Safe System approach. With local highways authorities in England facing ever diminishing returns on road safety engineering investment it provides an excellent opportunity on a national basis to stimulate a cultural ‘nudge’ away from established methods of road maintenance, improvement and design to exploring measures that mitigate for human fallibility. This will require a fundamental transformation in the highways and transport profession to fully understand, adopt and implement this principle but there is evidence that it could be the catalyst to unlocking the present state of inertia and restoring momentum in driving down road casualties.

The Safe System approach, particularly in respect of road infrastructure, will inevitably highlight deficiencies and gaps in our data collection and analysis protocols. It will also challenge some traditional road engineering standards that may now be incompatible with Safe System principles. This creates an appropriate opportunity to review this methodology and provide some justification to return to benchmark targets, either on a national basis or through newly created sub-national transport bodies.

The Safe System approach is not common terminology in the UK but many established interventions are aligned to this concept. An additional raft of best practice already exists amongst those countries that have embedded this methodology which must be fully explored and assimilated into our own design standards and transport plans if we are serious about making meaningful progress in reducing road casualties.

A number of building blocks therefore need to be in place in order to expand on existing road safety interventions but reframe the way in which road safety is viewed and managed.

The purpose of this paper, commissioned by PACTS, is to summarise the challenges facing local authorities in improving the safety of local roads which represent 98% of the road network in England. The challenges for vehicle safety and road user behaviour are addressed in the two accompanying papers.

The paper then explores the opportunities presented in the Statement with regard to local authority roads. The Statement follows Government policy on devolution and makes little specific reference about local authorities or local roads. Few of the 47 items in the Action Plan are about local authorities. However, the road safety management capacity review promised in the Statement is an ideal platform to evaluate the strengths and weaknesses of local authority activity with respect to delivering safer roads.

¹ Working Together to Build a Safer Road System British Road Safety Statement – DfT December 2015
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487949/british_road_safety_statement_web.pdf

² DfT, Strategic Framework for Road Safety – May 2011



Following dialogue with a range of industry practitioners from stakeholder organisations including local authorities, the Police Service, Road Safety GB and England’s Economic Heartland, this paper has therefore identified 17 safer roads actions which fall under a number of broad headings and are summarised in Appendix ‘A’.

Road Safety – Current Context

In 2011 the Government introduced major transformations to public policy through the Localism Act.³ Most significant of all was the transfer of decision making away from “centrally dictated” policy in order to free local authorities from government control. The Act removed many central targets and essentially provided new freedoms for local authorities and new rights for communities and individuals.

The Government also emphasised that the restoration of public finances would be their main focus and impetus. These two elements have had a profound and negative effect on the delivery of road safety services across the UK.

The Government’s Strategic Framework for Road Safety highlighted the fact that this new strategy would have to take account of the need to restore public finances. This had already commenced during 2010 with the withdrawal of the specific Road Safety Grant to local authorities who were already facing immense budgetary pressures as a result of stringent austerity measures.

Road safety partnerships bore the brunt of the funding cuts and were either forced to disband or significantly reduce resource and staffing levels. Over a very short period of time this led to a haemorrhaging of skills, experience and resources away from local authority road safety services. The PACTS and RAC Foundation collaborative document, ‘Road Safety Since 2010’⁴, was able to evidence this in terms of the correlation between the loss of government funding to local authorities and their greatly reduced capacity to deliver road safety services. The document also forewarned that ‘the legacy of this approach is likely to be seen in years to come’.

This was compounded by other agencies such as the Police and the Highways Agency (now Highways England) experiencing the same funding pressures, with the latter often completely withdrawing from collaborative engagement in terms of reducing road casualties.

The Strategic Framework also, and controversially, failed to set any national targets for casualty reduction. It is noticeable that many local authorities and road safety stakeholders have not therefore embedded targets into their local strategies and that reducing road casualties, along with the retention of dedicated road safety teams, is often a low level priority compared to other competing factors.

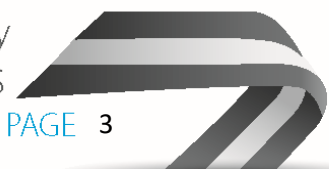
The Government’s localism agenda has also raised public expectation in terms of maintaining roads in a safe condition when in fact local authority spending constraints often restricts their ability to respond to known areas of concern.

As a positive outcome local authorities have been compelled to pursue external funding support for road engineering measures, local match funding schemes or explore innovative methods of facilitating road safety delivery by other stakeholders at low, or no cost, to the authority.

However, longer term external investment is very difficult to attract, which then has the consequential outcome of compromising the sustainability of effective measures.

³ Localism Act 2011

⁴ Road Safety Since 2010 – PACTS/RACF - 2015



British Road Safety Statement

The ‘British Road Safety Statement’ reiterates the Government’s Manifesto commitment to “reduce the number of cyclist and other road users killed or injured on our roads every year.”

The Statement sets out the scope of road safety activity for the government, including actions on technology, vehicles, infrastructure, education, enforcement and emergency services. It endorses devolution and local decision-making rather than centralised national targets for the UK.

The Statement endorses the Safe System approach to road safety which aims to remove the potential for death or serious injury. It reiterates that transport authorities are responsible for providing and maintaining a safe infrastructure and the users are responsible for using it in accordance with the rules. However, there is very little specific guidance or incentive for local authorities in terms of how they should engage with the limited number of safer roads actions laid out in the Statement. In addition, it is made clear that local roads will need to be made ready for the advent of autonomous vehicle technology but gives no indication of what this actually entails or how this investment will be funded.

Notwithstanding the above, there still appears to be opportunities for local authorities to influence outcomes through the impending road safety management capacity review as part of the wider objective of identifying areas of improvement across the road safety industry. Under the heading “Investment in safe infrastructure”, only three paragraphs relate to local authorities. These cover funding for road maintenance and cycling, and that it is the local authority’s role to manage its network with DfT co-operating on guidance through the UK Road Liaison Group.

The Statement includes the following actions (all short-term) relevant to local roads:

- Continue with £6.1bn investment to local highway authorities in England (outside London) between 2015/16 and 2020/21.
- Publish a Cycling and Walking Investment Strategy setting out our plans for investment in safer cycling and walking infrastructure as well as behaviour change programmes.
- Issue revised legislation on Traffic Signs and General Directions and support local authorities in the uptake of safer traffic signalling and signage measures in advance of the new legislation.
- Undertake research and the development of tools / guidance to help local authorities make investment decisions to improve the safety of rural roads.
- Continue to empower local authorities to set appropriate local speed limits.⁵

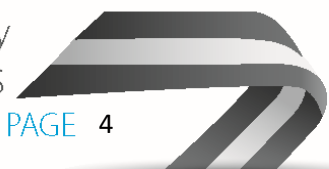
Safe System Approach

The British Road Safety Statement advocates the universal implementation of the Safe System approach as a key priority. Highways England has already embedded the concept within their policy⁶ but for local authorities this will represent a radical evolution in strategies for further improving road safety. However, unlike local authorities, Highways England has been given a challenging casualty reduction target by the Government together with substantial funding to deliver it through the Roads Investment Strategy.

The Safe System approach is based upon the principle that human interaction with the road network is one of the most fundamental components of everyday life. The instinctive desires for access, connectivity and social interaction are all furnished by the public highway, not only by current requirements but at all points in history. Unfortunately, human design speed has not evolved at the same pace as transport and highway advancement which has inevitably resulted in death and injuries of global epidemic proportions. Designers and road safety stakeholders have concentrated in the past on producing safe road systems but which have not particularly taken into account human fallibility, adverse behaviours and physical tolerance to impact.

⁵ Annex A: Our High Level Delivery Timetable, in British Road Safety Statement, pp-28-31.

⁶ Strategic Business Plan 2015-2020, Highways England 2014



Convention has always dictated that the road user should be careful, competent and responsible when using the road network with little acknowledgement that mistakes are an absolute constant in human activity.

There is a sense that this mind-set is gradually changing with the advent of the Safe System approach, pioneered by Sweden and the Netherlands, and a number of other countries are now embedding this methodology into their core transport policy.

The Safe System is a targeted approach that ultimately aims to eliminate fatal and very serious injury on the road network. It recognises that road users are fallible and inevitably make errors in judgment that may lead to a collision. It also acknowledges that there are limits to the force that the human body can withstand without causing death or serious injury. These limitations are directly linked to the type of collision and the speed of the impact.

The Safe System goal and strategy represents an ambitious safety performance level for the benefit of all road users especially the most vulnerable, represented in the main by pedestrians, cyclists and motorcyclists. The approach has evolved over many years and derives mainly from the Swedish Vision Zero and Dutch Sustainable Safety strategies. It is becoming increasingly utilised in Europe, Australasia and North America and requires a proactive approach placing road safety in the mainstream of road planning, design and operation. It also recognises that while individuals have a responsibility to act with care when using the network, a shared responsibility exists with those who design, build and manage the roads to prevent collisions resulting in serious injury or death. In other words, the road system should be designed to take account of these errors and vulnerabilities so that collisions are survivable.

The 2010 United Nations Global Plan for Road Safety⁷ promotes a ‘five pillar’ strategic approach for managing road safety and creating a truly Safe System:

- Road safety management
- Safer roads and mobility
- Safer vehicles
- Safer road users
- Post-crash response.

Local Authorities – Delivering Road Safety Today

The key road safety outcome and over-arching objective for any local authority is to reduce the instances of death and injury on the road network.

In most local authority areas significant casualty reductions have been achieved over the past 20 years with vehicle technology and legislation providing considerable influence together with effective interventions directed towards collision cluster sites, speeding motorists, and anti-social driving habits. Elements of these still prevail but it was always anticipated that a plateauing effect in casualty numbers would occur as they reached unprecedented low levels and local authorities experience ever diminishing returns on road safety investment. Therein lies the challenge in how to make a significant and sustained impression upon greatly reduced, but now relatively static, casualty numbers.

Collision data analysis continues to be the key element in identifying at-risk road user groups and the most collision affected sections of the road network. Activity can then be directed to where it is most effective. This intelligence led approach has ensured that road engineering focus and interventions have concentrated on areas such as improving safety on rural roads and protecting vulnerable road user groups i.e. pedestrians, cyclists and motorcyclists.

⁷ United Nations Decade of Action for Road Safety 2011-2020



At the same time, local authorities are seeking to promote healthy lifestyles and sustainable communities. Encouraging walking and cycling through safer infrastructure, education and road danger reduction policies are important objectives and drivers of road safety. In the public mind, perceived dangers (which are not easily measured) may carry more weight than bald casualty statistics

This activity has all been undertaken whilst working within funding constraints and future uncertainties.

Safer Local Roads – Priorities and Tools Available to Local Authorities

Years of investment in safety engineering and management have delivered substantial casualty reductions on local roads. However, major challenges remain if a Safe System is to be realised. Even more will be required to attain the goal of vision zero originated by Sweden and now being adopted by others. Rural road casualties still remain problematical and vulnerable road user groups continue to be disproportionately represented in the casualty figures, particularly in urban areas.

Managing the inter-relationship between speed, road infrastructure design, and human behaviour is fundamental to identifying effective measures. Speed management is a crucial component in reducing both road user errors and injury outcomes when mistakes are made. The chances of surviving a collision decrease rapidly above relatively low impact speeds and underpin almost every consideration involved in the development of new and existing safety initiatives.

Although local authorities now have greater flexibility in determining appropriate speed limits, merely implementing a lower restriction is unlikely to influence vehicle speeds to any great degree. Local authorities also face the increasing pressures of yielding to local political or community demands for lower limits, often in contravention of the DfT's speed guidance.⁸ This is in the knowledge that limits alone are ineffective and there will be future expectations to introduce supplementary physical calming measures, or for the Police to undertake enforcement activity. From an ethical perspective this latter option generally means that large numbers of motorists will be criminalised for no particular road safety reason and risks undermining the credibility of speed limits.

This is commonly highlighted in the growing popularity of 20mph zones or limits. 20 mph zones have self-enforcing physical measures that keep speeds at or close to 20mph. 20 mph limits are signs only and may have no self-enforcing features. 20mph zones tend to be contentious, and also more expensive as they generally require physical traffic calming measures in the form of speed humps, raised platforms or chicanes in order to gain compliance. These zones have been demonstrated to significantly reduce speeds and casualties but can have a detrimental aesthetic, noise and visual impact on a village or urban streetscape environment. A signed only (limits) scheme will have little effect and the police continually emphasise that they should not have to provide speed deterrent activity in schemes that should be self-enforcing.

At present we know that the evidence from studies into schemes around the UK is inconclusive in terms of the safety benefits delivered. Most show small average speed reductions of 1-2mph. In the most recent development, Manchester City Council has suspended the phased city wide roll-out of 20mph zones with the recommendation that the focus should now be concentrated on alternative road safety schemes because the zones have had little positive effect on speed, collisions and casualties.⁹

The Department for Transport has commissioned research into the effectiveness of 20mph speed limits in order to support and inform future policy development. The project is intended to evaluate the effectiveness of 20mph speed restrictions in terms of a range of outcomes including speed, collisions, injury severity, mode shift, quality of life, community, economic public health benefits and air quality. It will also examine drivers', riders' and residents' perceptions of 20mph speed restrictions and assess the relative cost/benefits to specific vulnerable road user groups including children, cyclists and the elderly. The study

⁸ DfT, Setting local speed limits, DfT Circular 01/2013, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/63975/circular-01-2013.pdf

⁹ Manchester City Council Report for Resolution – March 2017



is a three-year project with a final report anticipated in late 2017. The findings are likely to be important in determining future policy on 20mph limits.

Good examples of established interventions which conform to Safe System principles already exist on local roads in the form of roundabouts, physical traffic calming features and pedestrian crossings. However, roundabouts are largely designed to aid capacity and can often introduce new areas of conflict that require further engineering intervention.

Roundabout Study - Northamptonshire

A recent roundabout collision study was undertaken by Northamptonshire County Council as a result of increasing numbers of casualties. Of the 190 roundabouts captured in the study there were a total of 507 recorded personal injury collisions (3 fatal, 83 serious) during the period 1st January 2013 to 31st December 2015. This represents 13.2% of all personal injury collisions recorded countywide in that period and is now subject to more in depth studies in order to identify the most collision affected locations and associated improvements. This also highlights a fundamental dilemma for local authorities where expectation is still high from political and local community perspectives that significant numbers of slight injury collisions at site specific locations still need to be addressed. This inevitably diverts funding and resources away from other sections of the network where injury severity outcomes are higher.

Local Authorities - Delivering Safe System Principles

At present the Safe System approach and associated principles are rarely acknowledged, understood or implemented amongst the practitioners who design, build and manage the local road network in Britain. Core transport policies, road safety strategies and design standards are nearly all devoid of any mention of the concept. There are a small number of notable transport authority exceptions^{10 11 12} that have embedded the Safe System approach into recently published strategies but they are very much in the minority.

This clearly indicates that a huge amount of work needs to be undertaken in order to 'institutionalise' Safe System principles into mainstream highways and transport working practices. It will be the single biggest cultural shift since the implementation of the *Tomorrows Roads* government strategy in 2000 which galvanised a decade of intense and coordinated national activity towards reducing the instances of death and serious injury on the road network. As the Northamptonshire example above indicates, local authorities may face conflicts between addressing public demands and the Safe System priorities which are to focus on the most serious collisions.

Safe separation and safe integration of mixed road use will be key elements along with a protective road infrastructure to minimise injury consequence. More effective management of vehicle speeds at collision affected locations or extended routes will be also be required. This can be achieved through physical measures which require a deflected manoeuvre and associated slower approach speed, or the installation of average speed cameras to provide a deterrent effect, particularly on rural roads.

The roundabout issue described above provides a clear example of the need to review geometric design standards in order to better manage approach, entry and circulatory speeds in line with Safe system principles. This will provide the flexibility to introduce more pronounced areas of physical deflection that influence driver/rider speed management and encourage greater caution. This Safe System principle in new designs would help to avoid the necessity of implementing expensive retrospective casualty reduction measures such as rumble strips, traffic light controls or visibility screens.

¹⁰ Bristol City Council – A Safe Systems Approach to Road Safety in Bristol - March 2015

¹¹ Birmingham City Council – A Road Safety Strategy for Birmingham, 2016

¹² TFL Road Safety Programme – November 2016

The experience and best practice methods of other countries that have the Safe System concept embedded in their strategies is another key area that cannot be ignored. Collective and concerted efforts need to be made at the earliest opportunity to capture as much information as possible in order to identify the most effective measures.

Funding Constraints

Apart from average speed camera systems, which can be cost neutral, the common thread amongst all of these Safe System measures are the significant implementation costs. The need for sufficient funding and investment will, therefore, be the primary barrier.

Some funding incentives have been forthcoming through the recently announced DfT roads investment package which has apportioned a £175m Safer Roads Fund to be targeted at upgrading sections of 50 of England's most dangerous local 'A' roads. These have been identified through EuroRAP assessments where the risk of collisions causing death and serious injury is highest. This is based upon a report published by The Road Safety Foundation, 'Making Road Travel as Safe as Rail and Air', in November 2016 and highlights where investment should be directed.¹³ This is a substantial sum and the first of its kind for road safety for some years. However, it was not anticipated and is another ad hoc arrangement. For local authorities there is a bidding process the prospect of funding being 'drip fed' over the next four financial years to 2020/21. It will also need to take account of collisions and safety improvements that have occurred subsequent to the Foundation's work.

Safe System Road Assessment Programme

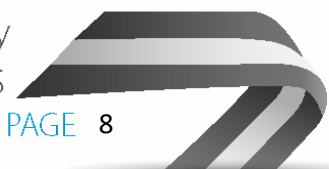
For a more consistent approach to managing road casualties on local roads, local authorities may support Highways England's proposals for the adoption of transparent star ratings for all strategic roads and encourage minimum safety levels of 4-stars for the busiest national roads and minimum 3-stars for all other national roads. This could be extended to local authority 'A' roads with a longer term goal to achieve a minimum 3-star level.

If adopted, there would be great benefit in extending the road assessment process beyond collision and traffic data to include a wider range of indicators in order to achieve minimum status and which help to prioritise Safe System interventions. The condition of the road surface and skid resistance values would be essential along with asset inventories which identify non Safe System structures. Speed data and road user demographic analysis for each route could also help to identify opportunities to influence vehicle speeds and educational interventions. With pressure on local authority budgets this multi-criteria assessment may provide a useful means to identify and rank those sections of the network where investments will bear the highest potential for casualty reductions.

Actions considered necessary to implement Safe System principles - for evaluation by the road safety management capacity review (see Appendix A for summary):

- A review of existing road infrastructure design standards to better reflect Safe System principles, philosophies and approach. The integration of requirement or guidance information into design, construction and maintenance specifications will help to inform regional and local policies and encourage greater consistency across the road network. As an example, the Design Manual for Roads and Bridges (DMRB) and Manual for Streets 1 and 2 provide the main industry standards for road infrastructure but do not currently include any reference or obligation to the Safe System principles. DfT Advisory leaflets are also another consistent source of guidance where the Safe System concept needs to be endorsed particularly as they are more readily accessible in the public domain and often referred to by communities when holding local authorities to account.

¹³ , 'Making Road Travel as Safe as Rail and Air' – Road Safety Foundation – November 2016



- It is essential that the same strategy and principles are embedded into core transport policies. Local Transport Plans and stakeholder strategies are all key areas to help shape and influence mainstream acceptance of the Safe System concept.
- A programme of learning/development for road designers, engineers, safety auditors and policy makers; accredited to ensure that the principles and design techniques are assimilated into working practices. This should include human behavioural factors, limitations and capabilities in order to ensure that there is a thorough understanding of these subtleties as an analytical tool.
- Safe System guidelines to specifically target and address vulnerable road user collisions i.e. pedestrians/cyclists/motorcyclists as prioritised in the Road Safety Statement. These account for just over half of road deaths in Britain and have much higher casualty rates per mile travelled in comparison with the other road user groups.¹⁴ In addition, comparable countries (those with similarly low overall rates of road user deaths per head) have lower levels (per head) of vulnerable road user deaths.¹⁵
- Specific Safe System guidelines to target the older driver population growth.¹⁶ The Office for National Statistics predicts that around a third of the population will be over 60 by 2039 and by then, more than one in 12 are expected to be aged 80 or over.¹⁷ Intuitively this is expected to impact on road safety in the coming years as the ageing process inevitably leads to functional decline in vision, memory, strength and general dexterity, but at rates that vary widely between individuals. The needs, capabilities and behaviours of older drivers and road users should therefore accommodate the functional considerations that accompany ageing.
- Review intervention best practice, methodology and expertise amongst participating countries at the forefront of Safe System delivery. Supported by a programme of dissemination to local authorities and stakeholder practitioners involved in local schemes.
- Centrally funded demonstration projects to investigate innovative road engineering measures and approaches in order to inform effective Safe System interventions that address the primary issues of rural and urban road casualties as well as vulnerable road user groups.
- Except for the few cases where a Serious Collision Investigation is undertaken, police officers do not have the necessary expertise to identify, or form a suspicion that the road surface skid resistance may be below acceptable values, particularly in wet conditions. Opportunities are, therefore, lost at an early stage for highways engineers to undertake a more detailed inspection. The Road Safety Statement delivery programme highlights an action to ensure that law enforcement officers have appropriate skills and training to more accurately record the causes of collisions in STATS19 reporting. Ideally, this would provide an opportunity to equip officers with skills to gain a better understanding of the road infrastructure in order to make informed judgements about surface condition and potential defects.
- The collision recording process should also be enhanced by a fast track reporting procedure specifically aligned to road surface issues which would enable the police service to notify local authorities regarding a potential low friction factor or maintenance defect. An early reactive investigatory process would have potential casualty savings on a longer term basis.
- Develop a EuroRAP style assessment process of local roads which provides a useful means to identify and rank those sections of the network where investments will bear the highest potential for casualty reductions.

¹⁴ Reported Road Casualties Great Britain: annual report 2015, DfT- 2016.

¹⁵ Understanding the Strengths and Weaknesses of Britain's Road Safety Performance – TRL 2016

¹⁶ Supporting Safe Driving into Old Age - Older Drivers Task Force 2016

¹⁷ Office for National Statistics, National Population Projections: 2014-based Statistical Bulletin



Collision Data Integrity

The Road Safety Statement also provides an opportune time to rectify a critical gap in collision data collection which underpins evidence led interventions and may potentially miss-direct priorities. It would be remiss therefore if this next phase, dominated by the Safe System approach, is not underpinned by actions to gain a more accurate grasp of actual road casualty numbers.

The British Road Safety Statement states that Britain’s road network is one of the safest in the world, mainly evidenced through road death statistics. All road deaths in Britain are formally recorded and thoroughly investigated by the police. There can, therefore, be confidence that this statistical measure has a high degree of accuracy.

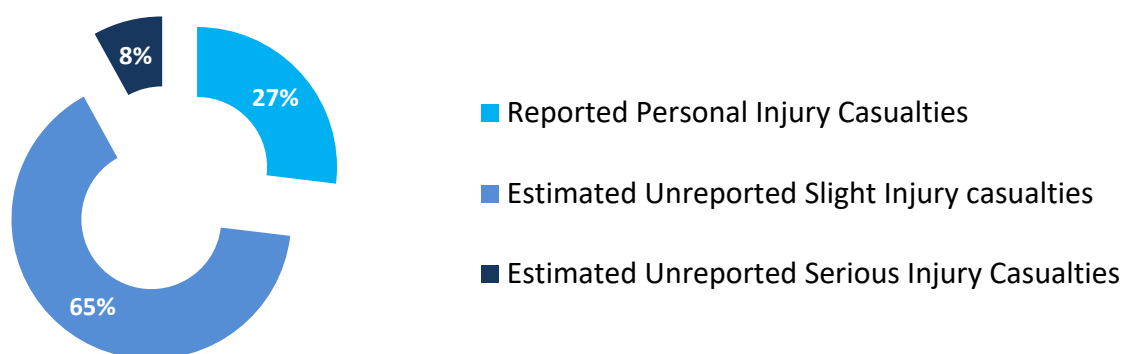
Road deaths have certainly fallen significantly in Britain and are now at the lowest levels since records were first introduced. However, the numbers have remained at an obstinately static level over the past 5 years and there are indications that progress across Europe is starting to move into reverse.

Effective road safety management requires data that users can rely on for accuracy, to define road safety problems, identify risks, formulate strategy and develop interventions, set targets and monitor performance.

Collision reporting weaknesses and inconsistencies are clearly apparent in Britain and acknowledged in DfT road casualty reports. In the 2015 Main Results¹⁸ the DfT best estimate is that *around 710 thousand people are injured to some degree in road traffic accidents each year. Of these, only around 191 thousand casualties are reported to the police and recorded in Stats19. This suggests that about 519 thousand casualties are unreported a year, of which roughly 57 thousand probably had a serious injury.*

One of the consequential outcomes is that the value of prevention for known casualties is grossly underestimated at around £20 billion per year and, according to DfT assessments, should be in the region of £35.5 billion if unreported collisions are included.

Estimated Unreported Personal Injury Casualties - 2015



Source: Reported Road Casualties Great Britain, annual report 2015 - DfT

The chart above suggests a concerning acknowledgement that around two thirds of all personal injuries sustained in collisions nationally are not reported or captured on a database. In addition, there is no standardised or harmonised recording procedure between the police, hospitals or insurance companies, all of which engage with victims of road collisions and retain a huge volume of critical data. Furthermore, diminishing resources and reduced road policing capacity increasingly compounds the question of accuracy and quality of collision data derived from the scene where officers are invariably undertaking a variety of other tasks which, understandably, may take priority.

¹⁸ Reported road casualties Great Britain 2015, annual report: DfT- 2016.

The system also requires police officers to make considered judgements about crucial aspects of the collision, road infrastructure and causation factors without recourse to any particular expertise.

Before embarking on the long term vision advocated by the Road Safety Statement the time has never been better to review, improve and update the reporting, recording and analysis processes in order to strengthen the evidence base and better inform road safety interventions. Hopefully these aspects will be addressed in the forthcoming STATS19 review by DfT.

Actions considered necessary to collision data integrity investigation - for evaluation by the road safety management capacity review (see Appendix A for summary):

- Investigate high level of underreporting personal injury collisions
- Investigate scope of additional data required to inform Safe System Approach
- Harmonisation of hospital/police/insurance data into a uniform format
- Bespoke training for police officers regarding accurate and concise data capture
- Process for ensuring data/evidence from police collision investigation reports is captured and assimilated into mainstream analysis.

National Targets

The Road Safety Statement endorses devolution and local decision-making rather than centralised national targets for the UK. Local authorities are free to set their own targets.

It has always been strongly argued that impetus and progress towards an objective requires measurable outcomes, particularly where the prevention of death and serious injury is concerned. There is a clear absence of collective direction and the fear amongst road safety professionals is that this will continue to deteriorate at a rate that, in the very near future, will be difficult to reverse.

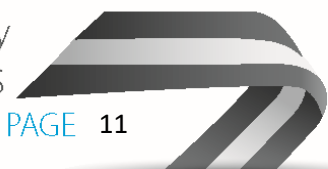
The value and significance of setting national quantitative casualty reduction targets is well known and advocated throughout Europe particularly amongst those exploiting the Safe System approach. Meaningful targets and indicators, long term and interim, would therefore provide a common goal for stakeholders and offer a level of accountability and ambition currently lacking from the road safety agenda.

Action considered necessary to implement national targets - for evaluation by the road safety management capacity review (see Appendix A for summary):

- Underpin the adoption of the Safe System approach with interim quantitative targets to reduce numbers of deaths and serious injuries over a specified period. These should be inclusive of vulnerable road users as a priority. However, it is also important that targets not only focus on the final collision outcome (KSI numbers) but also on engineering activity that delivers intermediate outcomes in terms of addressing contributory factors e.g. the reduction of excess and inappropriate average speeds, improved quality of the road network.

Constraints to Progress: Funding, Brexit and Devolution

Local authorities, in isolation, can only deliver limited road safety services as a consequence of reduced staffing resources and severe budget constraints. The meagre funding arrangements that are currently available tend to be quite complex, hampered by protracted bidding processes and with no defined outcomes. The Safer Roads Funding, highlighted previously in this document, is the most recent example of lack of consistent national investment for reducing road casualties. It highlights an acute and long term problem, greatly compounded by public expectation. Practitioners within the profession have always remained passionate and constructive about road safety prominence whilst operating against a backdrop of uncertainty, lack of direction and low priority status.



The following table highlights the Government’s long term spending plans on infrastructure and the disparity between investment in local authority roads (98% of the road network) compared to other transport funding.

Government Long Term Spending Plans (Source: HM Treasury 2013 – ‘Investing in Britain’s future’)

£m	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
High Speed 2	832	1,729	1,693	3,330	4,000	4,498	16,052
Highways England	1,497	1,907	2,316	2,614	3,047	3,764	15,145
Network Rail	3,548	3,681	3,770	3,789	3,824	3,859	22,471
London Transport Investment	925	941	957	973	990	1,007	5,793
						Sub Total	59,461
Local Authority Major Projects*	819	819	819	819	819	819	4,914
Local Authority Maintenance	976	976	976	976	976	976	5,856
Integrated Transport Block**	458	458	458	458	458	458	2,748
						Sub Total	13,518
Total	9,055	10,511	10,989	12,959	14,114	15,381	89,031

*this will form part of Single Local Growth Deal Funding

**£200m each year will form part of Single Local Growth Deal Funding

A Local Authority View

Experience has shown that road safety and casualty reduction is not a pressing issue on corporate management agendas in local authorities. It only becomes an issue if something out of the ordinary occurs that attracts national attention. This contrasts starkly with deaths and injury in other council services such as adult social care or children and young person’s services. A single event can trigger a major serious case review and significant injections of resources both in terms of capital and staff to ensure the occurrence is not repeated. In the field of road safety, deaths and injury are almost viewed as acceptable and inevitable.

The 2016 referendum vote for the UK to withdraw from the EU may also have consequences in areas of transport safety covered by EU law. It may not be clear for several years what will happen to this legal and policy framework in the UK context although road infrastructure is not an area heavily dominated by EU law. It will be important to ensure that current safety standards are maintained or updated.

Decentralisation of responsibility to local authority level has many advantages in terms of improving public services, lifting the burden of bureaucracy and increasing local control of public finances. In terms of reducing road casualties, many within the road safety profession have observed that, across authorities, this has compounded the ‘silo’ mentality, lead to a wide variability in performance and consigned prevention measures to a low priority and poorly resourced activity. This means that some local authorities may not actively engage with the Safe System approach particularly in relation to road infrastructure improvements. This patchwork effect also disconnects and limits any ambition to coordinate improved levels of service and reliability across wider geographical areas. The situation is further exacerbated with

the changing face of local government and the establishment of combined authorities, mayoral systems, growth deals and the increasing role of Local Enterprise Partnerships (LEPs). There is very real potential that the safety, skills and capacity problems being experienced by local authorities could be inadvertently accelerated with devolution focussing on other priorities.

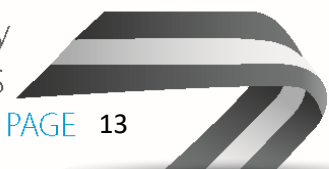
Sub-national Road Safety Forums

A new model and mechanism is required which will reinstate road safety as a targeted ambition, and one which extends beyond the partitions of current local authority boundaries.

With the changing face of local government and the establishment of Highways England as a public sector company there is a window of opportunity to forge new relationships which encompass all modes of transport safety. In order to maintain a safe, durable and efficient transport network there would be great advantage in establishing Sub-national Road Safety Forums with the potential to incorporate devolved powers and statutory status. This would enable local authorities and stakeholder partners to form strong alliances with a vested interest in developing safe, sustainable and healthy local transport systems. The Forums would also include traditional stakeholder partners like the Police, local authorities, Fire & Rescue Service and Highways England but also organisations that have a vested interest in safer and sustainable transport networks such as the health sector and Health & Safety Executive. These bodies would be able to make a considerable contribution to the strategies and derive a multitude of benefits in line with their own objectives. The private and voluntary sectors would also have a role to play. The formation of a single entity would *not* remove the statutory responsibilities of the member local transport authorities.

The potential benefits of collaboration are considerable:

- Collective ambition would empower Sub-national Road Safety Forums to build shared capacity, operate on a larger scale and reduce duplication of effort.
- A Sub-national Road Safety Forum would be well placed to establish a target and outcome based framework.
- Formal collaborative engagement would provide access to considerable resources, expertise and experience.
- The sharing of data, research and evaluation material will enhance and validate an intelligence led approach towards the Safe System principles as well as identify co-benefits for stakeholders.
- Major financial benefits would be derived through the establishment of a collective procurement framework, maximising the economies of shared resources and the ability to take advantage of collaborative funding bids.
- As less traditional transport safety stakeholders, the health sector and HSE would bring a fresh pair of eyes, scrutiny and challenge to the established areas of convention currently undertaken within the sector.
- Behavioural change outcomes will help to prevent injuries and promote other areas of active and healthy travel options.
- Shared capacity to commission or facilitate services as a collective body would provide much greater returns on investment and mutual gain.
- Policy integration would provide advantages in terms of achieving consistency of approach and synergies around local Safe System objectives.
- Shared technology, communications and a single point of contact for Government dissemination of all transport safety issues would have an enormous positive effect on the huge amount of duplication currently expended.
- With the prospect of driverless vehicle technology as the next major modal shift revolution, a Sub-national Road Safety Forum will be well placed to facilitate, coordinate and disseminate the transformation process across a large geographical area.



Examples of devolved administrations already exist in Scotland, Wales and Northern Ireland as well as London. All have road safety roles which are well defined and understood by the public, as opposed to the complex structure of responsibility which currently exists across local authority areas in England.

It is also apparent that key priorities contained within the British Road Safety Statement clearly endorse the notion that frameworks of the type outlined in this proposal are supported and help to underpin the requirement to deliver greater devolution to local people.

England's Economic Heartland

The strategic alliance of local authorities, England's Economic Heartland (EEH), has already commenced a possible trial of this proposed model. Membership of EEH includes nine local transport authorities, four Local Enterprise Partnerships, the Department for Transport, Highways England, Network Rail, bus operators and the Civil Engineering Contractors Association.

Recognising the need to reintroduce scale and ambition back into avoidable injury caused by transport, the EEH Transport Forum is planning to create a Transport Safety Group that brings relevant professions together, covering all the road and rail networks across the Economic Heartland area.

The key aim of the Group is to reinstate transport safety as a targeted ambition, ensuring that policy and investment decisions are based on clear evidence and that action is coordinated across the wider geographical area. The Transport Safety Group will work with all stakeholders, existing partnerships and with national organisations to provide a centre of excellence; with leadership, scale and best practice as the cornerstones of its delivery model.

As well as providing a focus for improving road safety, the Group will assist the coordination of actions across local and national road networks, consider the interaction between road and rail, and help embed safety throughout the design, construction, maintenance and use of transport facilities.

The proposed support infrastructure, governance and skill base, along with the pf work, could determine the template for future arrangements across England.

Action considered necessary to explore the establishment of Sub-national Transport Safety Forums - for evaluation by the road safety management capacity review (see Appendix A for summary):

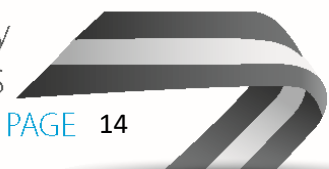
- Explore the benefits and develop a framework for establishing Sub-national Transport Safety Forums or Groups including areas of governance, devolved powers, funding, incentives and outcome requirements.

Conclusion

It is estimated that in future years, between the years 2011-2030; there will have been in the region of 3.5 million road casualties in the UK with a prevention value of around £160 billion.¹⁹ On current averages 35 people per week are killed in road collisions which are also the biggest killer of young people (16-24) compared to other causes.

It is, therefore, imperative that, in order to achieve significant reductions in road casualties at a national level, there is a systematic approach to road safety management with clear responsibilities, national targets

¹⁹ CGB Mitchell and RE Allsop, *Projection of Road Casualties in Great Britain to 2030*, PACTS 2014 <http://www.pacts.org.uk/2014/03/projections-of-road-casualties-in-great-britain-to-2030/>



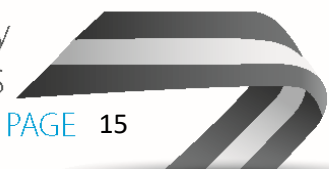
and accountability. The welcome commitment to a road safety management capacity review in the British Road Safety Statement has the potential to be a catalyst for transformation, innovation and collective direction for road safety activity over the next decade. This can only be achieved with a more realistic and balanced funding regime which is in contrast to the significant proportion of long term Government investment in the road infrastructure which has now been allocated to Highways England who manage around 3% of the network. This leaves local authorities with the certainty that funding will continue to diminish, whilst having to manage the vast majority of roads within their boundaries.

The ever growing skills shortage in the road infrastructure sector is also a compounding factor which could hamper economic recovery and our ability to re-establish a meaningful downward trend in road casualties. Attracting skilled professionals, experience and labour back into the highways sector should be a key issue and an immediate priority. Road safety interventions require a particular knowledge base and set of skills which may take some time to acquire particularly as the Safe System model is only just starting to gain traction in the UK.

Further devolution, in terms of road safety, will no doubt have to be carefully managed so as not to divert focus and activity away to other priorities. As an effective counter, Sub-national Road Safety Forums have the potential to provide collective leadership and strategy outcomes in order to ensure that resources are directed to where they are most needed.

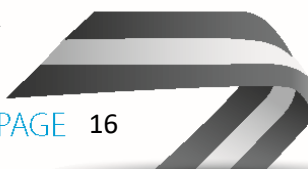
As set out in this paper, it is essential that Safe System principles form an integral part of this new approach with the road infrastructure, arguably, requiring the greatest cultural transformation amongst those responsible for designing, building and preserving it. Fundamental to this process will be more robust methods of collecting and analysing collision data which will provide a more proficient method of identifying effective measures. There is therefore a compelling necessity for industry practitioners to adopt a more adaptable, agile and receptive approach in order to ensure that complacency, leading to an increase in road casualties, does not become an unintended consequence.

This paper has identified 17 actions (see Appendix A) which reflect the discussion points in this safer roads paper. From a local roads and local authority perspective, we recommend that these actions are considered with a view to incorporating them within the Government's road safety management capacity review.



Appendix A: Summary of action considerations for the road safety management capacity review

Local Authorities – Delivering Safe System Principles	
Action 1	A review of existing road infrastructure design standards to better reflect Safe System principles, philosophies and approach. The integration of guidance information will help to inform regional and local policies and encourage greater consistency across the road network.
Action 2	A programme of learning/development for road designers, engineers, safety auditors and policy makers; accredited to ensure that the principles and design techniques are assimilated into working practices. This should include human behavioural factors, limitations and capabilities in order to ensure that there is a thorough understanding of these subtleties as an analytical tool.
Action 3	It is essential that the same strategy and principles are embedded into core transport policies. Local Transport Plans and stakeholder strategies are all key areas to help shape and influence mainstream acceptance of the Safe System concept.
Action 4	Safe System guidelines to specifically target and address vulnerable road user collisions i.e. pedestrians/cyclists/motorcyclists as prioritised in the Road Safety Statement. These account for just over half of road deaths in Britain and have much higher casualty rates per mile travelled in comparison with the other road user groups. In addition, comparable countries (those with similarly low overall rates of road user deaths per head) have lower levels (per head) of vulnerable road user deaths.
Action 5	Specific Safe System guidelines to target the older driver population growth. The Office for National Statistics predicts that around a third of the population will be over 60 by 2039 and by then, more than one in 12 are expected to be aged 80 or over. Intuitively this is expected to impact on road safety in the coming years as the ageing process inevitably leads to functional decline in vision, memory, strength and general dexterity, but at rates that vary widely between individuals. The needs, capabilities and behaviours of older drivers and road users should therefore accommodate the functional considerations that accompany ageing.
Action 6	Review intervention best practice, methodology and expertise amongst participating countries at the forefront of Safe System delivery. Supported by a programme of dissemination to local authorities and stakeholder practitioners involved in local schemes.
Action 7	Centrally funded demonstration projects to investigate innovative road engineering measures and approaches in order to inform effective Safe System interventions that address the primary issues of rural and urban road casualties as well as vulnerable road user groups.
Action 8	Police officers do not have the necessary expertise to identify, or form a suspicion that the road surface skid resistance may be below acceptable values, particularly in wet conditions. Opportunities are therefore lost at an early stage for highways engineers to undertake a more detailed inspection. The Road Safety Statement delivery programme highlights an action to ensure that law enforcement officers have appropriate skills and training to accurately record the causes of collisions. This provides an ideal opportunity to equip officers with the necessary skills to gain a better understanding of the road infrastructure in order to make informed judgements about surface condition and potential defects.



Action 9	The collision recording process should also be enhanced by a fast track reporting procedure specifically aligned to road surface issues which would enable the police service to notify local authorities regarding a potential low friction factor or maintenance defect. An early reactive investigatory process would have potential casualty savings on a longer term basis.
Action 10	Develop a EuroRAP style assessment process of local roads which will provide a useful means to identify and rank those sections of the network where investments will bear the highest potential for casualty reductions.
Collision Data Integrity	
Action 11	Investigate high level of underreporting personal injury collisions
Action 12	Investigate scope of additional data required to inform Safe System Approach
Action 13	Harmonisation of hospital/police/insurance data into a uniform format
Action 14	Bespoke training for police officers regarding accurate and concise data capture
Action 15	Process for ensuring data/evidence from police collision investigation reports is captured and assimilated into mainstream analysis
National Targets	
Action 16	Underpin the adoption of the Safe System approach with interim quantitative targets to reduce numbers of deaths and serious injuries over a specified period. These should be inclusive of vulnerable road users as a priority. However, it is also important that targets not only focus on the final collision outcome (KSI numbers) but also on engineering activity that delivers intermediate outcomes in terms of addressing contributory factors e.g. the reduction of excess and inappropriate average speeds, improved quality of the road network.
Sub-national Transport Safety Forums	
Action 17	Explore the benefits and develop a framework for establishing Sub-national Transport Safety Forums or Groups including areas of governance, devolved powers, funding, incentives and outcome requirements.



UK Road Safety
SEIZING THE
OPPORTUNITIES



Parliamentary Advisory Council for Transport Safety
Clutha House, 10 Storey's Gate, Westminster, London SW1P 3AY
0207 222 7732
www.pacts.org.uk
admin@pacts.org.uk
Twitter: @pacts

