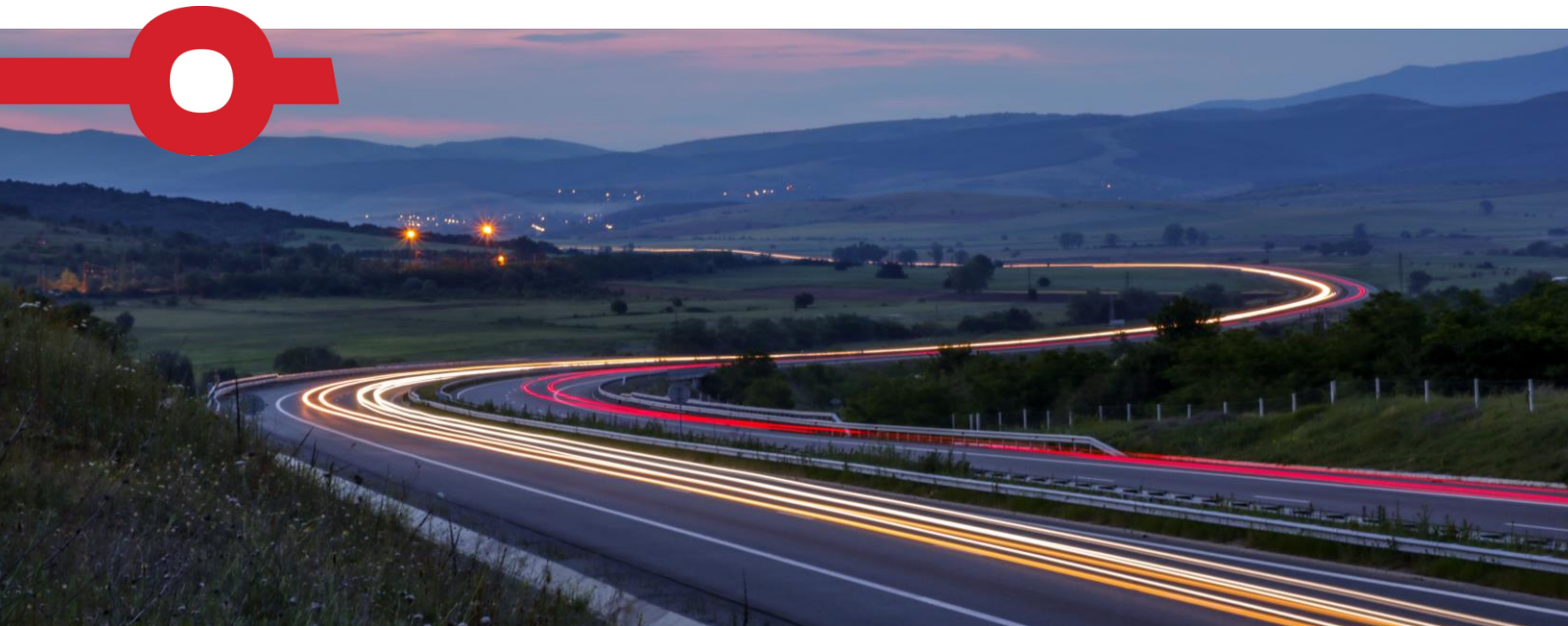# ROAD SAFETY MANAGEMENT CAPACITY REVIEW

This is an independent report and not a statement of government policy

SYSTRA

Department
for Transport

ROAD SAFETY MANAGEMENT CAPACITY REVIEW

DEPARTMENT FOR TRANSPORT

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EXECUTIVE SUMMARY

Introduction

Study Context

Following on from the government's manifesto to an annual reduction in road deaths and injuries, the British Road Safety Statement 2015 (BRSS) set out the government's commitment to invest further in continuing road safety activity, and to conduct a Road Safety Management Capacity Review (RSMCR).

A RSMCR is a strategic assessment, benchmarking and capacity building tool, originally developed by the World Bank's Global Road Safety Facility, to guide investments and assist countries in strengthening road safety management. It is recommended for use by the OECD/International Transport Forum and the World Road Association as a first step in further developing and extending effective Safe System investment strategies, plans and projects in all countries and contexts.

In May 2017, the DfT commissioned a RSMCR to benchmark and understand the current status of institutional delivery of road safety in Britain, and to identify practical and actionable opportunities for strengthening joint working, local innovation, and efficiency on a national and local basis.

Safe System

The overarching theme of the BRSS is the government's adoption of the recommended Safe System approach to preventing death and serious injuries in road collisions. Its application is cited as a key national priority in the UK. While building on current practice, some re-alignment in national road safety focus and activity will be necessary over time. Safe System implementation towards zero deaths and serious injuries is a long-term project and is in different stages of development in different countries and jurisdictions.

Safe System comprises both an explicit goal and strategy. The long-term Safe System goal is for the ultimate prevention of deaths and serious injuries, through incremental targeted improvements within a specified safety performance framework. The Safe System strategy aims for a more forgiving road system that takes human fallibility and vulnerability into account. The road traffic system is planned, designed, operated and used such that people are protected from death and serious injury in road collisions.

Aims and Objectives of the Review

The overarching aim of the RSMCR is to identify practical and actionable opportunities for strengthening joint working, local innovation, and efficiency on a national and local basis. In particular the RSMCR seeks to understand the current status of institutional delivery of road safety in Britain by:

- Examining national, regional and local structures, responsibilities, accountabilities, relationships and coordination;
- Examining whether management effort and resources at all levels are being targeted effectively at designing, and enabling or delivering evidence-based interventions and initiatives that can have the greatest impact in preventing and reducing the number of road users killed and seriously injured;

- Assessing the current road safety delivery landscape against the Safe System road safety management assessment framework and determining whether there is an imbalance in resource effort for each element and at each level (national, regional and local);
- Investigating how institutional capacity can be cost-effectively strengthened, within the context of the BRSS, to deliver a Safe System approach to road safety; and
- Identifying areas and means for improved joint working, local innovation and efficiency.

Executive Summary Structure

This executive summary provides a summary of the methodology used for the RSMCR, key findings, strengths and weaknesses and recommendations for each institutional management function (IMF) and intervention in turn, and a summary of our conclusions.

The full report and its appendices provide further details about RSMCR objectives, approach and assessment framework; the Safe System approach; the RSMCR findings and recommendations; and a report of perceptions and views of stakeholders who were consulted during the review.

Methodology

Approach to RSMCR

Detailed World Bank guidance sets out the methodology for the conduct of a road safety management capacity review. An assessment framework comprising a series of checklists is used, based on identified good practice road safety management. This allows detailed examination and benchmarking by experienced, independent road safety specialists of all elements of the road safety management system and their linkages against effective practice. The main elements of this assessment framework comprise the key *institutional management functions* (results focus, coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation, research and development and knowledge transfer) which provide the foundation for multi-sectoral, system-wide *interventions* (safe roads and roadsides, safe speeds, safe vehicles, safe road use, post-crash care, safe and healthy modes, and safe work travel) to achieve *results*.

Working across results, interventions and institutional delivery elements of road safety management provides a framework for addressing the United Nations Road Safety Collaboration 'pillars' and good practice implementation of the Safe System approach. It provides a systematic format within which to address the study objectives and for engaging the key agencies and stakeholders who can deliver road safety results.

Overview of study approach

The overall approach encompasses a synthesis of wide ranging information to understand the strengths and weaknesses of current road safety management capacity, how to overcome any weaknesses, and to inform the study conclusions and recommendations. It has used an international road safety management assessment framework to benchmark activity against national and international good practice and to engage with the road safety community at national and local levels.

The study commenced with a data gathering exercise, which comprised collation of national and international literature, statistical data, and information and reports published by stakeholders.

The main focus of the study involved a large stakeholder engagement programme, involving governmental departments and a wide range of other stakeholders involved in road safety. Participants included representatives from central government departments and agencies; local government departments; emergency services and trauma care; business and industry; advisory groups, associations and charities; and academic institutions.

Methods of engagement for stakeholders included face to face in-depth interviews with individuals and small groups, in-depth telephone interviews, and workshops with plenary sessions and break out groups. Over 80 stakeholders were engaged using these approaches. Five online surveys were also undertaken, with local authority Road Safety Officers; local authority Highway Surveyors; Chief Constables across different police forces; ambulance trusts; and a sample of car fleet managers.

Following collation of findings from the stakeholder engagement exercises, two half day workshop sessions were held for all those previously engaged to discuss the findings of the review and enable stakeholders and government representatives to comment on the deliverability of a selection of the draft recommendations. This ensured the final report findings were realistic and practicable and appropriately represented the consensus and key themes from our research. The workshops comprised presentations of findings to date, plenary sessions and break out groups and were attended by about 70 representatives from a wide range of stakeholder organisations and central government.

The report findings, identifying the strengths and weaknesses of current approaches, and recommendations on how best to deliver reductions in deaths and serious injuries towards the ultimate aim of elimination, are drawn from a synthesis and evaluation of the data and evidence collected, and views provided from the study team's road safety specialists.

Key Findings and Recommendations

Introduction

This section summarises the key findings and recommendations of the RSMCR in relation to road safety activity at national and local levels.

The key recommendations in this summary document are primarily those suggested for the public sector, and are focussed on government adoption of a new road safety strategy, with the aim of providing focus for improving joint working, and embedding the Safe System ambition and approach into the delivery of national and local road safety activity. A broader perspective of the shared responsibility to achieve ambitious road safety results between government, the business sector and civil society is provided in the main report, as are some linkages between recommendations.

The remainder of this section is divided into three sections:

- Section A: Institutional Management Functions;
- Section B: Interventions; and
- Section C: Results.

SECTION A: INSTITUTIONAL MANAGEMENT FUNCTIONS

Results Focus

Key findings

A focus on results is the overarching institutional management function, in the absence of which all other aspects of delivery lack cohesion.

Safe System is an ambitious approach which, while building on current practice, is likely to necessitate some re-alignment in national and local road safety focus and activity over time. The long-term goal to work towards the eventual elimination of deaths and serious injuries is evident in the safety performance framework for goals and interim measurable targets and objectives which the government has set for Highways England, and in the work carried out for the Safer Roads Fund. This goal is being adopted increasingly in the United Kingdom in the devolved administrations, in towns and cities such as London, Bristol and Edinburgh, and in some local authority road safety strategies.

While a high-level commitment to road safety in key DfT lead agency units is evident, the absence of defined national road safety ambition in a measurable safety performance framework is setting back effort. There is general agreement that a more strategic focus on results (the prevention and reduction of deaths and serious injuries) is required and the evidence base for the efficacy of targets in reducing deaths and serious injuries is well established.[1] [2] The devolved administrations and many working at national and local levels want to see the re-establishment of a national road safety performance framework. A good practice Safe System performance framework comprises a long-term goal towards zero deaths and serious injuries, supported by interim quantitative targets to reduce death and serious injuries, which are in turn supported by a set of measurable safety performance objectives related to death and serious injury prevention and reduction.[3] [4] Examples of successful adoption of this framework can be found in Norway and Sweden which, despite the challenge for road safety presented by economic recovery following the global financial crisis in the last decade, maintain their global leadership in road safety with lower road fatality rates than achieved to date in Britain.

Main strengths

O   Established Lead Agency (DfT) and adoption of Safe System approach in BRSS.
O   Understanding by many agencies and stakeholders of the importance of setting long-term road safety goals and measurable interim targets and objectives.
O   Specific goals, targets and objectives set for Highways England and by devolved administrations and some cities.

Main weaknesses

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[1] Allsop R.E, Sze, N.N., Wong, S.C (2011) An update on the association between setting quantified road safety targets and road fatality reduction. Accident Analysis and Prevention 43 (2011) 1279–1283.
[2] OECD/ITF (2008). Towards zero: ambitious road safety targets and the safe system approach.
[3] World Bank Global Road Safety Facility (GRSF) (2009). Bliss T and J Breen, Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country guidelines for the conduct of road safety management capacity reviews and the specification of lead agency reforms, investment strategies and Safe System projects, World Bank, Washington DC.
[4] OECD/ITF (2016). Zero Road Deaths and Serious Injuries: Leading a paradigm shift to a Safe System OECD Publishing, Paris

- Insufficient central government leadership in road safety over the last decade.
- Road safety is not perceived as core business by all responsible agencies.
- Lack of an agreed national safety performance framework to achieve results.
- No explicit national long-term Safe System towards zero goal.
- Safe System is not well understood nor is it filtering downwards from the lead agency.

Key recommendations

The DfT should strengthen leadership in new British strategy in the following ways:

- Develop and publish a new British road safety strategy and action plan to improve safety outcomes for all road users.
- Strengthen the strategic capacity of Road User Licensing, Insurance & Safety (RULIS) to develop a new road safety strategy and to take the lead and coordinate road safety activity across DfT.
- Provide leadership to local authorities, encourage Safe System activity and increased understanding of the concept.
- Ensure that road safety objectives are evident in transport strategy and policy documents and in investment strategies such as for the Major Road Network.
- Ensure that identified priority areas for action are consistent with implementing Safe System.
- Underpin the government's adoption of the Safe System approach with an agreed **national road safety performance framework** to form the core of a new British road safety strategy. This would provide the focus for all other institutional delivery functions. The national road safety performance framework would:

  - Set out the long-term Safe System/Towards Zero goal of working towards the ultimate prevention of deaths and serious injuries;
  - Set interim quantitative targets to 2030 to reduce the numbers of deaths and serious injuries;
  - Set measurable, intermediate outcome objectives for activities to 2030, for which there is a strong evidence base for a direct relationship to the prevention of death and serious injury and which are used by global road safety leaders. These include: [5]
    - Increasing compliance with speed limits on different road types,
    - Reducing average speeds on different road types,
    - Increasing the level of seat belt use and child restraint use,
    - Increasing the level of helmet use for two-wheeled vehicle users,
    - Reducing driving while impaired by alcohol and drugs,
    - Increasing compliance with in-car telephone use rules,
    - Increasing the safety quality of the SRN and main road network to the highest iRAP *rating,
    - Increasing the safety quality of the new car fleet to the highest Euro NCAP * rating, and
    - Increasing compliance with emergency medical response times.

- Set long-term goals and supporting interim quantified objectives for the new Major Roads Network along the lines adopted for the Strategic Road Network.

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[5] European Commission, Monitoring Road Safety in the EU: towards a comprehensive set of Safety Performance Indicators, European Commission, Directorate General for Transport, November 2017.

- Set out the shared benefits that road safety can bring to other societal objectives, e.g. public health, occupational health and safety, environment, tourism and the economy.
- Ensure that achieving better road safety results is seen as core business and supported by appropriate capacity by all the responsible government departments and their agencies, in particular by all key units of the Department for Transport, Highways England, Home Office, Department of Health, and the Health and Safety Executive.

Other central government Departments and agencies should:

- Actively support the national road safety strategy, goals and objectives through adoption of policies to reduce deaths and serious injuries within their areas of responsibility.

Local government should:

- Appoint a cabinet lead for road safety, to ensure that road safety remains high priority for local authority activity, and to improve accountability for legal duties.
- Adopt the Safe System approach and long-term goal towards the ultimate prevention of death and serious injuries in road safety strategies and plans.
- Set measurable interim targets to 2030 to reduce the numbers of deaths and serious injuries with supporting road safety performance objectives, as proposed for the national framework.

Police should:

- Increase levels of enforcement of key road safety rules related to the prevention of death and serious injury.
- Support improved crash investigation and encourage and facilitate the adoption of the widely recommended CRASH reporting system by all police forces.

Business and civil Society should:

- Engage with and support the national drive to work towards the ultimate prevention of deaths and serious injuries and related objectives.

Coordination

Key findings

Successful road safety coordination in Britain is an increasingly complex task within the context of devolution and localism, the absence of national goals and quantified objectives to provide cohesion for multi-agency and multi-sectoral activity, and budget cuts. The Road Safety Delivery Group is a useful forum for discussion and information sharing but lacks focus for meaningful inter-agency coordination of activity aimed at achieving ambitious results. Although there are good examples of joint working between national and local levels, such as the THINK! campaign and the Safer Roads Fund, there is a widely held view of a lack of central government support and leadership. The new Major Roads Network and investment fund provides a new opportunity for new regional coordination structures.

Main strengths

- Britain has a well-established information sharing structure at national level, bringing together key road safety partners. More regular reporting to Ministers on progress is envisaged.

- Mature, local road safety partnerships continue to play a key role.
- New regional road safety coordination for the strategic road network is being developed by Highways England.

Main weaknesses

- The absence of a national road safety performance framework for the interim and long-term is resulting in a lack of focus and cohesion in coordination efforts and fragmented activity.
- There is a lack of inter-departmental coordination to ensure that road safety objectives are embedded in the mainstream policies of responsible agencies.
- Local road safety partnerships are suffering a loss of multi-sectoral involvement.

Key recommendations

The DfT and its governmental partners should:

- Strengthen coordination across and between all levels of government in support of the national road safety performance framework which will provide focus, rationale and coherence for meaningful shared responsibility.
- Establish a Minister-led, high-level Road Safety Strategic Partnership Group with senior representatives from central and local government, police and other key road safety partners focused on agreeing priorities within a new road safety strategy, and steering and overseeing delivery of Safe System ambition and quantified objectives. This would be supported by a working group comprising key departmental, agency and stakeholder representatives with operational road safety responsibilities for road safety, and independent experts, to deliver Safe System objectives through multi-sectoral activity at national and local level.
- Strengthen the capacity of DfT road safety staff to take the lead in coordination of road safety delivery, both within DfT and across all levels of government.
- Strengthen coordination with local authorities by a variety of means: through establishment of the national road safety performance framework to provide cohesion for efforts, as well as through funding, incentives and guidance.
- Support the establishment of regional road safety partnerships in coordination with Highways England for the major and local road network in support of goals and interim quantitative objectives with ring-fenced grant funding to local authorities.

Local authorities and police should:

- Work in partnership with civil society to deliver road safety results in support of the ultimate ambition for the elimination of deaths and serious injuries.

Legislation

Key findings

Over the years, Britain has established a generally robust legislative framework and has earned a high reputation for its processes, including review and consolidation of legislative provisions for road safety. BREXIT, devolution and localism all raise additional complexities for the legislative framework for road safety. Key issues in the context of the changing organisation of road safety within Britain are how meaningful shared responsibility for implementing a Safe System approach can be delivered, as well as the extent to which legislation addresses the current road safety task. Additional concerns are

adherence to best practice, road users' understanding of what applies where, and differing enforcement regimes in various parts of Britain. At the same time, reduced legislative capacity may provide opportunity for greater use of other tools such as incentives and investment.

Main strengths

- Britain has a generally robust legislative framework for road safety, built over a long period of time.
- Review and consolidation processes of legislation are established.
- Local authorities have a legal duty to carry out road safety activities.

Main weaknesses

- Institutional roles, responsibilities and accountabilities for implementing the long-term Safe System approach are not formally established.
- Consolidation of road safety legislation is overdue, but there are capacity constraints.
- No recent in-house review of needs to meet the current road safety task has been conducted.

Key recommendations

The DfT and its governmental partners should:

- Clarify the shared responsibility for road safety across agencies by reviewing institutional roles, responsibilities and accountabilities and other specific legislative needs, in support of implementing the long-term, multi-sectoral Safe System approach.
- Ensure capacity is available for identified evidence-based legislative road safety changes which address the prevention of death and serious injury.
- Consider whether a new duty should be placed on local authorities to identify where responsibility lies for road safety at cabinet level.
- Carry out periodic consolidation of road safety legislation in line with good practice.

Funding and Resource Allocation

Key findings

The level of spending on road safety is not commensurate with the current estimated value of prevention of deaths and serious injuries (£8.3 billion). There are many opportunities for large returns on investment presented by a wide variety of systematic, demonstrably effective interventions. The organisation and availability of funding of road safety has undergone major changes since 2010 which is having, or will have, substantial effects on the amount and quality of activity.

The removal of the ring-fenced Road Safety Grant and the substantial reductions in local highway investments and in traffic policing levels, experienced since 2010, have had visible impact on the level and quality of activity. Most local authorities are struggling to carry out and prioritise effective road safety activity in a time of budget cuts and growing demand in other areas, such as social care, without the impetus provided in the past from national measurable objectives. There are recent positive developments on roads funding: the Safer Roads Fund, Highways England funding for the strategic roads network, and promised new investment in a new Major Roads Network, highway maintenance and cycling safety.

Main strengths

- Britain's past good practice in road safety investment is recognised globally.
- New funding is planned/available for strategic roads, major roads and cycle safety.
- The societal value of preventing death and serious injury used in cost-benefit analysis is based on willingness-to-pay methods and updated regularly.

Main weaknesses

- The removal of the Road Safety Grant and Partnership Grant has reduced local road safety capacity and activity.
- Road safety activity receives only limited funding in most local government budgets and is given insufficient priority.
- Substantial reductions in highway engineering budgets are inhibiting the integration of proactive road safety engineering into asset management.

Key recommendations

The DfT should:

- Review the funding available to local authorities to ensure that highway maintenance and other safety critical activity is not cut in order to finance other services.
- Ensure that at least 10% of all road infrastructure investment is allocated to road safety intervention and to ensure embedding of the Safe System approach into the mainstream of highway engineering practice (in line with UNRSC's global road safety plan recommendation for the Decade of Action).
- Consider reintroducing the ring-fenced Road Safety Grant for local authority road safety partnership activity, in order to ensure that sufficient levels of multi-sectoral activity take place.
- Consider introducing a ring-fenced grant for the establishment of regional road safety partnerships.
- Provide financial resource for roll out of training to local authorities on Safe System engineering to advance knowledge transfer.
- Review the Safer Roads Fund once the evaluation is complete and consider if it should be extended.
- Provide local authorities with dedicated resources for innovative Safe System demonstration projects to advance local implementation.
- Ensure that the benefits for health of walking and cycling are supported by safety improvements by making funding available for safety measures as well as measures to increase activity.

Other central government Departments and agencies should:

- Review funding in support of measures to improve road safety within their responsibilities.

Local authorities should:

- Review the priority given to road safety in budget allocations.

Promotion

Key findings

Britain has had a long tradition in promoting road safety as a shared responsibility across and between levels of government, supported by civil society and the business sector. However, more recently there is less evidence of high-level promotion and leading by example across national government. There is insufficient focus on road death and injury as a major cause of harm, in particular for children and young adults. More consistency is needed in messages on road deaths and enforcement of traffic law, and in public health and child welfare promotion.

Main strengths

- Adoption of the Safe System approach in the BRSS provides an opportunity to refresh national road safety activity and align it with other societal objectives such as health promotion and occupational health and safety.
- There is advocacy for strong activity on road safety from non-governmental bodies and in London, other cities and by Highways England.

Main weaknesses

- Strong high-level promotion of road safety at national level is not evident.
- There is a lack of promotion of good practice nationally and locally.
- Safe System is poorly understood and needs better communication and promotion.

Key recommendations

The DfT and other central government departments and agencies should:

- Promote the shared responsibility for road safety at a high level to provide national leadership.
- Promote the Safe System ambition for the ultimate elimination of deaths and serious injury as the new transport safety culture for professional road safety work in Britain.
- Develop 'leading by example' strategies in line with this ambition.
- Promote Towards Zero in public communication strategies.

Local authorities should:

- Promote Safe System as the new transport safety culture in Britain to professionals and devise Towards Zero community promotion and engagement strategies.
- Promote the shared responsibility for road safety at a high level to provide local and city leadership.

Civil society should:

- Promote Safe System and Towards Zero as the new transport safety culture to professionals, businesses and the community.
- Promote the take up of BS ISO 39001 and other strategic road safety management tools.

Monitoring and Evaluation

Key findings

The collection, review, dissemination and sharing of data, as well as performance review, has traditionally been a national strength and consistent with international best practice. The adoption of the Safe System focus on the prevention and reduction of deaths and serious injuries, and supporting measurable indicators for targeting related system-wide activity and performance, presents new monitoring and evaluation needs. These include review of data and survey needs as well as providing a home for central storage of all relevant statistical data relating to Safe System implementation.

Currently, the main road safety monitoring role of the Statistics Travel and Safety Division of the DfT is the production of the annual national database of statistics on road casualties and the annual publication *Road Casualties Great Britain.* A planned review of the national road crash injury reporting system is expected in summer 2018 and will need to address new data needs. A positive development which is discussed later in Section 5.2 is the process of adoption by DfT of the responsibility for the CRASH reporting system and the work being carried out to facilitate its take-up by all police forces at no cost. At the same time, there is over-reliance on national data on deaths and serious injuries for understanding crashes and outcomes, and the collection and targeting of intermediate outcomes would allow closer safety management. At national level some such data is collected periodically, but neither comprehensively nor sufficiently regularly, nor brought together to inform policymaking in a systematic way. Although the DfT is assiduous in its evaluation of new interventions and programmes there are some concerns that, despite this, too little emerges in terms of policy development.

A national professional debate has commenced about how road collision investigation can be expanded. The view expressed by collision investigation experts is that all road fatalities could be investigated using a Safe System approach. This would involve an independent expert assessment of every police investigation which, together with Coroners' and other data provides much other useful data and allows comprehensive and themed analysis. The need to expand the RAIDS programme to allow more collision investigation of severe injuries was also highlighted during the review.

Main strengths

- Monitoring and evaluation is supported by a national STATS19 road accident database.
- An improved police reporting system, CRASH, is being rolled out.
- Highways England, Transport for London and others are starting to look at safety performance indicators in support of quantified objectives and Safe System implementation.
- Some data tools are available in support of a Safe System approach, e.g. iRAP safety ratings of the strategic and main road network and Euro NCAP ratings.
- The DfT has commissioned a Road Safety Management Capacity Review, in line with recommended practice.
- A national discussion is taking place on how road collision investigation can be enhanced.

Main weaknesses

- The review of STATS19 is long overdue and there have been delays in the widespread adoption of CRASH but which are now being addressed.
- Annual monitoring of key indicators linked to the prevention of death and serious injury is not carried out, and there are no longer public opinion surveys on attitudes to road safety.
- Integration of key final and intermediate outcome data to support the implementation of Safe System is lacking.

○ The scope of current in-depth crash investigation to determine serious and fatal collision and injury causation is too limited.

Key recommendations

The DfT should:

○ Review data needs for delivering a national Safe System performance framework.
○ Carry out the anticipated review of STATS19 data at the earliest opportunity.
○ Establish the level of underreporting of serious injury collisions by linking STATS19 and health data sets (the last linkage was in 2012).
○ Review crash investigation to consider how the current system for investigation of fatal and serious crash injuries can be enhanced, and set out options for such a system.
○ Develop the capacity of the DfT Statistics and Analysis Division to fulfil key national monitoring and evaluation requirement related to Safe System implementation.
○ Commission regular monitoring reports to track progress in delivery of key road safety objectives.

The Home Office and police should:

○ Alongside the DfT, ensure that one national crash reporting system (CRASH) is used by all police forces.
○ Monitor actual levels of enforcement of key road safety rules including those relating to excess alcohol and drugs, speeding, seat belt use, and in-car telephone use.

Local authorities should:

○ Measure key safety performance indicators e.g. average speeds, seat belt use, crash helmet use, and iRAP ratings related to the number and risk of death and serious injuries, to inform a local performance framework with reference to the proposed national framework.
○ Monitor outcomes of local road safety programmes in line with goals and quantified objectives to ensure that value for money is being obtained.

Research and Development and Knowledge Transfer

Key findings

Successful road safety activity in Britain has been underpinned by a long tradition of road safety research commissioned by DfT and the EU which has contributed to the evidence base for policy development and evaluation, together with the global road safety knowledge base. The UK has played a major role in road safety research and development internationally. A notable example is found in vehicle safety research, which has strongly contributed to the development of good practice crash tests and protocols and informed vehicle safety legislation and consumer information. The UK road safety research capacity is well developed and embraces a range of institutes and university departments and units, as well as charitable foundations which commission and promote research findings. The establishment of a national road safety research strategy and capacity framework has been suggested by several research funders.

The major area of UK funded safety research is the £80 million allocated to industry led commercialisation initiatives on autonomous vehicles through Innovate UK. The current DfT RULIS research budget of £2 million funds a young driver project (Driver2020), which is evaluating five non-

legislative interventions aimed at reducing young driver collision risk. Some concerns have been expressed on current research funding levels, procurement methods, including frameworks, and priorities. There is no longer a road safety research advisory group or a national road safety research strategy. Demonstration projects have been an important part of the programme in the past and could play a valuable role in developing Safe System measures.

Central government and its partners in Britain also have a strong tradition in providing a framework for knowledge transfer. This is of increasing importance in providing guidance on Safe System implementation. A start has been made to this process in the development of initial guidance on proactive road safety engineering by the DfT, Road Safety Foundation, and RAC Foundation under the auspices of the Safer Roads Fund.

Time and budget constraints have limited the engagement of central and local government staff with international research groups, attendance at conferences and participation in international networks, to the detriment of professional development.

Main strengths

- Strong capacity for road safety research exists in the UK.
- Good practice guidelines, training programmes, demonstration projects and workshops are established national mechanisms for knowledge transfer.
- Initial guidance on implementing a Safe System approach through proactive road safety engineering is being developed.

Main weaknesses

- There is no national road safety advisory body to help to identify priorities nor a national road safety research strategy.
- There are concerns about research funding and problems created by the framework procurement process.
- The road safety profession is generally insufficiently aware of the state of the art in implementing Safe System.
- There is a knowledge gap and lack of engagement in public and private sectors in the implementation of a Safe System approach.

Key recommendations

The DfT should:

- Establish a national road safety research advisory group to provide independent expert advice on research priorities related to implementing Safe System.
- Develop and publish a national multi-sectoral road safety research strategy covering all Safe System elements to support and reinforce the shared responsibility for road safety results
- Increase dedicated road safety research budget and programme management capacity to support the implementation of a Safe System approach and demonstration projects across the UK.
- Encourage partners to fund research in line with their core road safety responsibilities.
- Improve current research procurement methods.
- Establish a register of road safety research competencies and programmes.
- Continue to build policy evaluation and monitoring into the research programme.
- Provide guidance on Safe System implementation.

○ Commission Safe System demonstration projects.

SECTION B: INTERVENTIONS

Safe Roads and Roadsides

Key findings

Implementing the Safe System approach has major implications for the safe planning, operation and perhaps use of the road network, and involves engineering approaches to:

○ Establish clear urban and rural road hierarchies which better match function to speed limit and layout and design;
○ Separate oncoming traffic on high-volume, high-speed roads to prevent head-on collisions and provide crash protective roadsides to address run-off road collisions; and
○ Ensure safe speeds at intersections to reduce fatal and serious side collisions and ensure safe speeds on roads and streets with dangerous mixed use where separation of motor vehicles and vulnerable road users may be difficult.

The focus on prevention and mitigation of death and serious injury requires predictive, and not reactive approaches to risk; updated design standards to take account of human tolerance to injury; speed management that takes account of the protective quality of roads and roadsides, road function and use, and the protection afforded by vehicles travelling on the network.

For the Strategic Roads Network, Highways England is clearly providing safety engineering leadership in many aspects of Safe System, although some experts engaged with note that core attention to speed management is missing.

While comprising only 11% of the total network, the Major Road Network carries 56% of traffic and produces around 51% of road traffic deaths. The desirability and opportunity for government to set a similar safety performance framework for a new Major Road Network, as for the current strategic road network, has been suggested. This would include targeting iRAP star rating performance in support of a long-term goal and interim objectives to prevent and mitigate death and serious injury, and embedding the Safe System approach into the mainstream of the planning, design, operation and use of the network.

Safe System leadership and activity in safety engineering is also evident at city levels in London and some other cities. In support of the Mayor's Vision Zero goals and targets in his new transport strategy, London is working on key safety performance indicators to more closely manage its interventions. New attention in recent years has been given to cycling safety alongside its promotion as a healthy activity. Bristol provides a further example of a city adopting Safe System, where systematic speed management is being put in place to improve the safety of walking and cycling.

In general, however, Safe System is not well understood at local level. Prioritisation of road sections requiring treatment by fatal and serious risk is not generally evident in local network management. However, the Safer Roads Fund programme is generally viewed as encouraging highly useful and complementary proactive Safe System implementation for 50 local major roads which present the highest risks of death and serious injury.

Main strengths

- Highways England is leading the adoption of Safe System principles for the SRN, including new designs for expressways, and is working to measurable safety targets.
- The Safer Roads Fund is encouraging proactive engineering approaches on 50 highest risk locally managed A roads.
- Mayors in several cities are leading Safe System urban road engineering to protect vulnerable road users.

Main weaknesses

- There is no national policy and guidance on safe roads and roadsides and Safe System is not yet part of the mainstream of national highway engineering practice.
- Road classification, speed management on motorways, and the design and layouts of main road networks and urban roads, are not in line with Safe System principles.
- Safety activity on local roads is under-resourced compared with investment in the Strategic Road Network.

Key recommendations

The DfT should:

- Review the national road hierarchy, speed limit classification, and urban and rural design standards to align with Safe System principles.
- Develop national guidance on integrating the Safe System approach into the mainstream of highway engineering.
- Provide resources to local authorities for training on Safe System engineering and for demonstration projects.
- Allocate at least 10% of all road infrastructure investment to road safety intervention, as recommended in the UNRSC's Global Road Safety Plan for the Decade of Action, and to ensure embedding of the Safe System approach into the mainstream of highway engineering practice.

HE should:

- Publish an annual star rating performance of the Strategic Road Network.
- Identify, in partnership with local authorities, road sections for priority treatments on the Major Roads Network and local roads using iRAP tools.
- Carry out in-service training in implementing the Safe System approach.

Local authorities should:

- Review local road classification to ensure that speed limits match function, road design and layout to conform with Safe System principles.
- Adopt the Safe System approach into the mainstream of highway engineering and ensure that prevention of death and serious injury is an explicit objective in maintenance.

Public Health England should:

- Play a highly visible role in supporting evidence-based intervention for Safe Roads and Roadsides.

Safe Speeds

Key findings

Safety engineers note that the road classification in Britain is not generally aligned to Safe System. Posted speed limits allow speeds that are in excess of the design limits of roads and roadsides and vehicle capability to protect against death and serious injury. This is particularly the case on the single carriageway rural road network where inappropriate but allowable speed within the 60mph limit is often cited as a contributory factor in road crashes. In urban areas, 20mph limits are being increasingly implemented in city centres, residential areas and other areas with high volumes of pedestrians and cyclists, often supported by road humps and chicanes. There is concern that new government guidance on emissions may lead local authorities to remove such speed management devices without reference to the safety impact. Better speed management has not been cited to this review as an operational priority by the DfT, Highways England, police activity, or local authority activity.

Compliance with speed limits is still poor, especially in urban areas and on motorways, and exceeding the speed limit features amongst the top five contributory factors for many types of collision. Even small changes in mean speed affect fatal and serious crash risk. A 5% decrease in mean speed could produce a 30% reduction in deaths. Speed prosecution thresholds are considered by professionals to be too high. Speed cameras have proven effectiveness, and recently average speed cameras have been shown to reduce fatal and serious collisions by 36%. Speed awareness courses as an alternative to prosecution are seen by many, though not all, as a useful educational measure and their effectiveness in terms of reoffending is being evaluated.

Intelligent Speed Assistance (ISA) can help drivers to comply with speed limits and an overridable option is being examined within the EU's General Safety Regulation review. Research in Britain indicates a potential 21% reduction in fatal crashes and a 14% reduction in serious crashes from the fitment of overridable ISA. This is an in-vehicle system in which the driver chooses whether the system restricts the vehicle's speed and/or the speed it is restricted to. Procurement processes and insurance schemes also present opportunities to promote ISA.

Main strengths

O   Successful speed management includes speed cameras and residential area speed reduction measures.
O   British research has contributed to promising in-vehicle technologies.
O   Speed compliance levels are regularly monitored.

Main weaknesses

O   The road and speed limit classification system is not aligned to Safe System principles.
O   Compliance with speed limits is not high in urban areas and on motorways.
O   Speed limits are too high where protection from roads and vehicles is insufficient.
O   Leadership on speed management is lacking.
O   National guidance is lacking on Safe Speeds within a Safe System approach.

Key recommendations

The DfT should:

O   Acknowledge the central role of speed as a design parameter of the Safe System approach.

- Review national speed limits on roads in Britain as soon as possible.
- Establish better speed management as a national priority by targeting percentage increases in speed limit compliance and work with partners to achieve this.
- Promote the benefits of average speed cameras, fixed site and mobile cameras to key agencies, highway authorities and the community.
- Re-establish national multimedia advertising on the adverse, daily consequences of speeding.
- Assist drivers in complying with speed limits by promoting mandatory, overridable Intelligent Speed Assistance (ISA) in EU Whole Vehicle Type Approval; and fast-track this nationally via government procurement policies and safe travel policies.

HE should:

- Establish speed management as a priority for network safety management, in line with the Safe System approach.
- Roll out a programme of cameras on motorways and A roads, including average speed cameras.

The Ministry of Justice should:

- Review international best practice with national speed prosecution thresholds.

The Home Office should:

- Work with partners to improve speed limit compliance and promote the benefits of speed cameras.

The police should:

- Include speed limit compliance in policing priorities and work with DfT, HE and local authorities to combine publicity and police enforcement of speed limits.

Local authorities should:

- Acknowledge the central role of speed and its management to a Safe System approach and review priority interventions for local roads.
- Target percentage increases in compliance with speed limits, work with partners, e.g. DfT, HE, police to ensure better compliance and review progress annually.
- Require ISA in the public procurement of transport services.

Public Health England should:

- Play a highly visible role in supporting evidence-based intervention for Safe Speeds.

Safe Vehicles

Key findings

The UK has a proud heritage in vehicle safety advocacy, policy and research. Vehicle safety interventions address crash avoidance, crash protection and mitigation in the event of a crash, and post-crash response.

The current focus of international vehicle policy work emphasises market driven approaches and futurist intervention for connected and autonomous vehicles. While experimentation with driverless vehicles are in the pipeline, Highways England estimates that the roll out of fully autonomous vehicles on the Strategic Road Network is unlikely before 2050. The path towards this will need research, regulation and evaluation but safety benefits in the meantime will be derived from available safety technologies. However, there is widespread concern that short and medium-term vehicle safety priorities and investments are not competing well with the connected and autonomous vehicle agenda.

A range of life-saving driver assistance technologies, including intelligent speed assistance, autonomous emergency braking systems for pedestrian and cyclists await adoption in EU legislation and promotion by national fast-tracking. Substantial savings in deaths and serious injuries have been identified by research. There is wide support for requiring 5* Euro NCAP star rating in public procurement and for setting targets to improve take up in the new vehicle fleet, as practiced in some other countries. In addition, the need for an expansion of in-depth crash investigation has been highlighted.

Main strengths

O   The UK has made a strong contribution to international vehicle safety standards including Euro NCAP, and there is strong vehicle safety research capacity.
O   The need for vehicle safety requirements in public procurement is national policy and London is a leader in this.
O   Insurance sector initiatives via in-vehicle monitoring hold promise.

Main weaknesses

O   Policy and research agendas are dominated by the creation of a market for automated vehicles.
O   Vehicle safety measures are not prioritised for their casualty reduction value.
O   Crash injury investigation has become too limited.
O   National guidance is lacking on Safe Vehicles within a Safe System approach.

Key recommendations

The DfT should:

O   Promote vehicle safety technologies such as Intelligent Speed Adaptation, Autonomous Emergency Braking for Pedestrians and improvements in key crash tests for front, side and pedestrian protection, in regulation, consumer information and procurement policies.
O   Restore the previous priority given to vehicle safety policy and research in DfT vehicles activity and research procurement.
O   Engage fully in Euro NCAP technical activities and provide equal financial resource to that provided by other governmental board partners.
O   Set and monitor national targets to improve vehicle safety quality to Euro NCAP 5* in the new car fleet.
O   In coordination with the Government Buying Service, announce measures to include Euro NCAP 5* rating (including 60% pass of pedestrian tests), motorcycle anti-lock braking systems, Intelligent Speed Assistance, autonomous emergency braking for pedestrians and seat belt reminders in all seating positions in the public procurement of transport services across government.

- Strengthen national policy leadership on the operational safety of commercial vehicles and review the safety of commercial vehicles operating standards.
- Extend the RAIDS crash investigation programme so it is large enough to inform new policy and monitor new technologies in cars.
- Work with business to ensure transparent evaluation of insurance sector in-vehicle initiatives to reduce young driver risk through telematic applications for wider roll-out, ongoing and as an extension to the Driver2020 research.
- Review research procurement procedures and protocols to ensure that urgent research needs can be addressed by the appropriate expertise.
- Publish a road map for the safety management of increasing and mixed automation levels of connected and autonomous vehicles.
- Allay wide concerns about the safety quality of vehicle type approval post BREXIT and in international trade deals.

Local Government should:

- Include Euro NCAP 5* rating and key vehicle safety measures in the public procurement of local transport services.

Safe Road Use

Key findings

The Safe System approach aims to create a forgiving road and vehicle environment that accommodates human error and takes account of human tolerance to injury. New emphasis is given to increasing the protective qualities of roads and in-vehicle driver assistance technologies which will produce sustainable improvements in safe road use over time. However, road users are also expected to comply with road traffic law and regulations, assisted by education and publicity to improve knowledge and attitudes and enforcement frameworks to aid compliance.

There is general support for the national driver licensing and testing framework. However, young driver crash injury rates and numbers, as well as the increasing vulnerability of ageing road users, continue to be of concern. Concerning the former, the Driver2020 research programme is evaluating a variety of voluntary interventions. However, this review found support for managing initial exposure to risk through graduated licensing, an approach that has been found effective in several countries. An urgent issue is the need to revise provisions concerned with penalty points earned by offending learner motorcyclist licences, as has been highlighted in the recent DfT consultation.

Commercial vehicle and driver responsibility is shared by DfT and DVSA, along with the Traffic Commissioners. There are some concerns regarding vehicle operators from overseas and about the devolved approach adopted by central government on some aspects of heavy goods vehicle safety which would benefit from a uniform, national approach.

A number of key safety rules are directly related to the number and risk of death and serious injury. These include rules on speeding, impairment by alcohol, drugs and fatigue, seat belt and child restraint use, crash helmet use and the use of distracting devices such as in-car telephones. Compliance levels indicate that road users need more assistance through such measures as in-vehicle driver assistance devices, safety engineering and speed management, and police enforcement and supporting publicity campaigns.

Main strengths

- Britain has a comprehensive framework for driver licensing and testing and a long tradition of coordinated safety publicity and enforcement engaging the community.
- Safety partnerships coordinating publicity and enforcement are well established.
- Research and some surveys on safe road use and behaviours are carried out.
- Local authority safety work is supported by Road Safety GB and through guidance developed by the RAC Foundation.

Main weaknesses

- The needs of high-risk young drivers and riders are not fully addressed in the licensing system.
- There is a lack of national leadership in the safety of heavy goods vehicle operation.
- Levels of education, publicity and police enforcement have been reduced.
- National guidance is lacking on Safe Road Use within a Safe System approach.
- Surveys of all key safe behaviours are not carried out.

Key Recommendations

The DfT should:

- Review how Safe Road Use can be supported within a Safe System approach (in addition to that provided by other Safe System elements) through improved road user standards and assisting compliance with key road safety rules.
- Ensure that driver licensing standards better address the needs of high-risk young drivers and riders and older drivers by:

  - Monitoring graduated driver licensing developments in Northern Ireland to inform decision on implementing in Britain, together with review of latest UK Driver2020 research and overseas research findings.
  - Revising provisions concerned with penalty points earned by offending learner motorcyclist licences as highlighted in the recent DfT consultation.
  - Reviewing age requirements for the renewal of driver licences and accompanying provisions, as recommended by the Older Drivers Task Force.

- Lower the blood alcohol limit to 50mg/100ml for the general driving population which could produce identified reductions of at least 120 deaths and serious injuries in alcohol-related road collisions[6], and would be in line with current public opinion survey evidence and internationally identified good practice.
- Review the safety of commercial vehicle operating standards.
- Carry out THINK! campaigns across a wide range of media, coordinated with police enforcement effort, to promote Towards Zero and secure better compliance with key road safety rules.
- Commission research into public perception of the risk of being detected for key road safety offences, e.g. excess alcohol and speed.

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[6] Allsop R E (2015). Saving Lives by Lowering the Legal Drink-Drive Limit, University College London

The Home Office should:

○   Support police enforcement of safety rules by providing more finance and equipment, in particular evidential roadside breath testing devices, and national guidance.

The Ministry of Justice should:

○   Review speed offence prosecution thresholds against international best practice.

The police should:

○   Upgrade the priority given to enforcement in policing strategy and increase activity.

Local authorities should:

○   Devise community engagement strategies to promote the Towards Zero goal of the ultimate prevention of deaths and serious injuries.
○   Ensure an evidenced-based approach to determining priorities for safe road use and adopting Safe System principles and appropriate capacity for local education, training and combined publicity and enforcement of key road safety rules.

Public Health England should:

○   Play a highly visible role in supporting evidence-based intervention for Safe Road Use.

Post-Crash Care

Key findings

Post-crash care concerns the rescue, treatment and rehabilitation of crash victims. Effective care reduces mortality rates and improves recovery rates from injury through prompt emergency rescue and care at the roadside, good diagnosis and stabilisation, fast transport to hospital, quality trauma care and good rehabilitation. Research indicates that deaths could be reduced by one-third by reducing the time between crash occurrence and arrival of medical services from 25 to 15 minutes. The development of regional major trauma centres has made a real contribution to reducing deaths and better recovery and outcomes. The Trauma Audit and Research Network (TARN) has a large trauma database and provides research-based recommendations that have led to major changes in trauma care.

The review was unable to engage with policy makers in the health sector. There is no national information on the efficiency of emergency response in general, but monitoring of ambulance response times has shown a deterioration in recent years. First responder first aid is also provided by trained police who attend collisions, some trained fire crews, and driving instructors.

The new in-vehicle eCall system that will be fitted to all new cars from April 2018 will provide an automated message to the emergency services following a collision. Substantial savings in deaths and serious injuries have been identified by research from a fully operational system. However, there is concern by some that this system may divert emergency vehicles to sites where they are not needed or which do not need to be prioritised in terms of threat to life or consequences of serious injury.

Main Strengths

- Significant changes in major trauma centre organisation have taken place and response to major trauma is targeted and monitored.
- There is continuing improvement in standards of emergency care and training, and first responder training is offered.

Main weaknesses

- Post-crash care is not embedded in road safety strategies and its specific contribution to reducing death and serious injury in road crashes in Britain is not well-researched.
- Ambulance and hospital accident and emergency services are under pressure and not meeting national targets.

Key recommendations

The DfT should:

- Include post-crash care in road safety strategy to improve survivability and reduce permanent impairment resulting from road collisions.
- Review the contribution of improvements to response rates, trauma care and long-term rehabilitation of crash victims to reducing death and the long-term consequences of serious injury.

The Department of Health and National Health England should:

- Address regional variations in emergency medical response times.
- Report on the effectiveness of major trauma care in preventing death and the long-term consequences of serious injury.
- Commission research on the cost of long-term care resulting from permanent impairment from road traffic injury.

Public Health England should:

- Recognise that road traffic injury is a major cause of premature death and long-term serious injury in their Strategic Plan and include road safety as an area for action.

Local authorities should:

- Actively include post-crash care as a key road safety strategy in a Safe System approach.
- Work with the local health sector to identify local improvements in post-crash care.

Safe and Healthy Modes

Key findings

While different travel modes are promoted for different reasons, there is a substantial difference in levels of fatal crash injury risk between different modes of travel. Rail is the safest land travel mode, followed by bus and coach travel. The fatality risks per billion passenger miles of travelling by car, although relatively low compared with more vulnerable modes, are 5 times higher than by bus travel.

At the other end of the injury risk spectrum, the fatality risks of travelling by motorcycle are 52 times higher than by car, 3.5 times higher than by bicycle and almost 3 times higher than by foot.

There has been substantial new activity in recent years to promote active travel in the context of sustainable transport policies and the promotion of healthy lifestyles. This reflects public demand for greater equity between motorised and vulnerable modes and includes the development of a new national cycling and walking strategy and the recently established cycling safety review. Given the greater vulnerability of pedestrians and cyclists to the risk of death and serious injury, with a 16 and 15 times higher death rate by distance respectively than car occupants, new attention to the planning and design of safe environments in line with Safe System principles is urgently needed. The long-term public health benefits of walking and cycling are large, but promotion of increased activity needs to be supported by planning the road environment, vehicles and safety equipment with the safety of vulnerable modes in mind in order to reduce death and serious injury risk.

A new strategy was introduced in April 2017 setting out ambitious goals for increases in cycling and walking and focusing mainly on the former. Whilst there are specific, measurable targets set for increasing cycling and walking, and an unspecified goal for improving the safety of cyclists, there are no objectives set for increasing the safety of pedestrians, and walking is seen as the "poor relation" in policy announcements. Whereas 6% of deaths and 14% of serious injuries are amongst cyclists, over four times as many pedestrians (25%) are killed in road collisions.

The strategy also encourages local authorities to take account of the needs of pedestrians and cyclists and to reduce conflicts with traffic, and many have already established an active travel policy. There is widespread support for lower speed limits in urban areas, although the results of DfT's research on the use of 20mph limits without self-enforcing measures is awaited. The review of cycle safety will consider whether a new offence equivalent to causing death by careless or dangerous driving should be introduced for cyclists, as well as wider issues for cycling safety. In March 2018, the DfT published a Call for Evidence on Cycling and Walking Safety, in support of the ambition in the Cycling and Walking Investment Strategy to make cycling and walking the natural choice for shorter journeys, or as part of a longer journey.

Main strengths

○   A national cycling and walking investment strategy has been produced and new national policy on cycling and walking safety is being developed.

○   Local plans for walking and cycling are being encouraged and promoted, and London and other cities are targeting safety improvements for pedestrians and cyclists.

○   Research is being carried out on 20mph speed limits.

Main weaknesses

○   Britain's safety record for pedestrians and cyclists does not compare well to the leading road safety performers internationally.

○   The emphasis in the walking and cycling strategy is on cycling safety.

○   Specific quantitative targets have been set to increase walking and cycling, but not for reducing the numbers of deaths and serious injuries for pedestrians and cyclists.

○   Compliance with urban speed limits is poor; urban design standards need updating.

Key recommendations

The DfT should:

- Encourage modal shift in support of environmental, safety and health objectives by promoting the use of the safest modes e.g. rail, bus and coach travel and the healthiest modes of walking and cycling.
- Support walking and cycling with safety improvements to address risks of serious and fatal injury risks associated with cycling and walking which are lower than for motorcycling but appreciably higher than those travelling by car or public transport.
- Substantially upgrade the priority given to the safety of pedestrians which compares poorly internationally.
- Establish measurable safety performance indicators which relate to the prevention of death and serious injury to pedestrians and cyclists in the new national road safety strategy.
- Carry out a national review of urban design standards with pedestrians and cyclists in mind and align with Safe System principles.
- Support demonstration projects applying innovative Safe System treatments.
- Consider extending the Safety Helmet Assessment and Rating Programme (SHARP) scheme to include bicycle helmets.

Local authorities should:

- Review the urban street classification and align with Safe System principles.
- Ensure that there is safe access to public transport taking account of the needs of elderly and disabled people.
- Improve compliance with urban speed limits.
- Ensure capacity for effective community pedestrian safety initiatives.

Safe Work Travel

Key findings

Road deaths at work are the leading cause of all deaths in the workplace, contributing at least 30% of deaths and 22% of serious injuries. The size of the problem is under-estimated due to uncertainty as to the accuracy of journey purpose data in the national road crash injury data system, the lack of any requirement for employers to record work-related road traffic injury in the national occupational health and safety database (RIDDORS), and lack of monitoring and evaluation of work-related road safety intervention at company and national levels. Work-related road safety is identified as an area deserving increased national focus by central and local government, national experts, road safety organisations and by the business sector.

The national policy framework for work-related road safety is led by the DfT, in cooperation with the HSE. Fleet management and procurement was set out as an objective in the BRSS. The DfT has identified the vehicle leasing sector as a key collaborator 'as it accounts for one tenth of cars and up to one quarter of Heavy Goods Vehicles on our roads'.

The Royal Society for the Prevention of Accidents has had long-term involvement in creating awareness about what employers can do through establishing networking such as the Occupational Road Safety Alliance. Driving for Better Business campaigns to raise awareness of the importance of work-related road safety in the business community and public sector.

The Transport Safety Commission has also made several recommendations in this field and has set up a Work-related Road Safety Forum comprising the DfT, HSE and a range of organisations and experts concerned with work-related road safety. Their aim is to bring key partners together, achieve better understanding of the problem and identify useful next steps. The British Standards Institution (BSI) has engaged very actively in the international development of BS: ISO 39001 (2012) which set out a new Road Traffic Safety Management System standard with requirements and guidance for use.

Recent research concludes, beyond confirming the problems noted above, that there is a weak regulatory and compliance framework around work-related driving. While corporate manslaughter legislation is in place, it is barely used for cases involving work-related road collisions and injuries.

Main strengths

- A new national policy for work-related road safety is foreseen in the BRSS.
- Highways England has a Health and Safety Plan.
- The UK has been actively involved in developing a recent ISO standard on road traffic safety management systems for organisations.
- A Work-related Road Safety Forum has been set up by the Transport Safety Commission.
- Some but not all local authorities have adopted safe travel policies.
- Business sector networks exist to increase awareness of the importance of work-related road safety.

Main weaknesses

- Work-related road safety has not been a priority in occupational health and safety policy and management in Britain.
- Data reporting mechanisms and intervention monitoring are insufficient.
- BSI: ISO 39001 is not widely promoted, nor is much in use by organisations in Britain.

Key recommendations

The DfT should:

- Work with the HSE to provide governmental leadership and better coordination for effective work-related road safety activity in Britain.
- Conduct a research programme to extend the evidence base for effective national work-related road safety.
- Review the reporting of 'journey purpose' in STATS19 data in the STATS19 review.
- Encourage the adoption of BSI: ISO 39001 Road Traffic Safety Management System Standard through public procurement policies and other incentives, following a review of how greater take up can be encouraged.
- Support local authority work-related road safety activity.
- Establish a Safe Travel Policy for government services taking Safe System principles into account.

The Health and Safety Executive should:

- Upgrade priority given to work-related road safety, which is the leading cause of death at work.
- Require reporting of work-related road collisions to RIDDOR when someone has been injured on the roads whilst using the road for work, or when someone driving or riding for work injures a member of the public.

Local authorities should:

○ Engage with local employers on work-related road safety.
○ Encourage the adoption of BSI: ISO 39001 Road Traffic Safety Management System Standards through public procurement policies and other incentives.
○ Establish a Safe Travel Policy for local government services taking Safe System principles into account.

SECTION C: RESULTS

In 2016, 1,792 people lost their lives on British roads, the highest total since 2011. Between 2000 and 2010 road deaths fell by 48% from 3,409 to 1,850, but the trend has been broadly flat since 2010. There was a 5% drop in UK fatalities compared to 17% for the EU average in the period between 2010 and 2015.

A further 24,101 crash victims were seriously injured in 2016. Road traffic injury represents a leading national cause of major trauma and for some age groups, a leading, if not lead cause of death when compared to all other causes.

Research-based forecasts indicate that unless more effective action is taken, 350,000 people will be killed or seriously injured in Britain between 2010 and 2030[7]. Apart from this human cost, the societal value of prevention of the projected 3.5 million casualties of all severities is estimated to be around £160 billion. The annual value of prevention of death and serious injury in 2016 is estimated at £8.3 billion.

Programme phasing and prioritisation

The preceding sections set out the key recommendations from the Review. Together with those additionally in the main report they provide a comprehensive programme of inter-related activities for the implementation of Safe System in Britain to achieve road safety results. The proposed programme, to be implemented over the next three years, envisages action by Central Government, Local Government, Police, the Business Sector and Civil Society to provide a coordinated and more ambitious approach for the delivery of improvements in safety outcomes for all road users.

The priority for action to implement the Review's recommendations is for DfT, as Lead Agency, to set in train the necessary steps for strategy development and coordination of road safety delivery, as set out in recommendations for Results Focus and Coordination. Of key importance is the recommended national road safety performance framework to form the core of national strategy, with the setting of a long-term goal, quantitative targets for the interim, and key road safety performance indicators for targeting progress and monitoring outcome objectives, together with related funding, monitoring and evaluation, and research requirements. Urgent action is also needed concerning recommendations for important improvements in vehicle safety via legislation and public procurement. In addition, it will be necessary within the current consultation to ensure that, as recommended, the prevention of death and serious injuries on the Major Roads Network is appropriately and explicitly addressed in performance frameworks and investment programmes. An overarching task is for the DfT to develop an Action Plan for the full programme of implementation of recommendations involving all agencies, taking account of current activities and opportunities, and ensuring that priority areas for action are

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[7] Mitchell C G B and R E Allsop (2014). Projections of road casualties in Great Britain to 2030, PACTS, London.

consistent with Safe System objectives. This would also need to establish key reviews to embed Safe System and to encourage Safe System activity and increased understanding of the concept by all sectors.

This approach would ensure that resources are put in place at an early stage to deliver a comprehensive and multi-sector programme underpinned by an Action Plan detailing priorities and phasing of activities.

Conclusions

Britain is one of the global leaders in road safety and has achieved its results over decades by means of a systematic, planned, research-based response to road safety problems. Notwithstanding the good progress achieved, and as in most other countries active in road safety, there is widespread concern about current road safety results amongst the road safety community in Britain. This review has found strong support for more ambitious activity to address the large scope for preventing avoidable death and serious injury in road crashes.

The context for road safety is constantly changing and is set to change in ever more fundamental ways by 2030. The roll-out of known, effective safety measures is essential to address the increasing risks from trends in choice of active travel modes and the need to address the safe mobility of an ageing population. The introduction of new technologies such as driverless cars will need careful planning and anticipation of possible risks such that the potential road safety benefits are realised.

The government has embarked upon an ambitious long-term course in adopting the Safe System approach in line with international best practice. Most professionals view Safe System as a sound approach which involves the extension and deepening of current practice. The Highways England strategic framework, the strategic work in some cities, and the recent launch of Safer Roads Fund are widely cited as highly promising. At the same time, Safe System is not yet fully launched or promoted, nor is there sufficient understanding across the sectors of what this means for their road safety work in Britain. This review makes a variety of recommendations, summarised in the preceding sections, to address this.

In any country or jurisdiction, the context for road safety activity is highly complex (given its multi-sectoral and multi-disciplinary nature), and careful leadership is a critical success factor. Bold leadership and further steps by the national lead agency for road safety, the DfT, are sought.

In Britain, the complexity of this road safety context has increased in recent years, both due to new developments in localism and greatly reduced budgets, as well as some falling away from successful past practice. This is evident in many sectors and is the cause of widespread concern by practitioners and professionals, including policymakers. There is national consensus amongst those with everyday responsibilities for road safety that the priority given to road safety has been slipping for some years into unknown territory and that the momentum and rate of progress in casualty reduction seen in previous decades has been lost. Continued fragmentation and dilution of established effective practice is a threat to future road safety performance.

The principal conclusion of this review is that the absence of a national road safety performance framework is impeding progress. It is clear that this has been a major factor in the marked reduction in priority and observable recession in results-focused road safety activity in virtually every sector, and in both national and local government.

Over a two-decade period up to 2010 a carefully derived strategic national safety policy framework and quantified casualty reduction targets provided focus for national and local activity and substantial reductions in deaths and serious injuries in road crashes were achieved.

It is widely reported that the absence of national quantitative targets to reduce death and serious injury since 2010 has contributed to a different focus from, or reduced focus on, death and serious injury prevention and reduction in important policy areas. While localism is cited nationally as being the primary reason for the withdrawal of targets, road safety professionals (across many sectors, including local government) are not convinced, observing that locally relevant targets are set in many other areas e.g. housing, other areas of public health, motor vehicle emissions and walking and cycling.

Professionals have reported problems with retaining a road safety priority, or in some cases even the function itself, in local authority policymaking and investments. Problems are evident in the low priority now given to enforcing key road safety rules. Above all, a lack of a rationale for joint working was reported within departments, across central government, with and within local authorities and across the wider road safety profession. The lessening involvement of key agencies with core responsibilities at national and local level is challenging meaningful shared road safety responsibilities in key sectors. Current activity, in general, remains highly fragmented and lacks focus.

The relationship between setting quantified road safety targets and achievement of the reduction of death and serious injuries in road collisions is well established in research findings. International organisations working with road safety see target-setting as a global success story. Successful application of a Safe System approach requires a Safe System performance framework. This comprises the setting of an explicit long-term goal towards the ultimate prevention of death and serious injury, and interim measurable targets to reduce deaths and serious injuries. These must be underpinned by a range of supporting, targeted, measurable outcomes and outputs which are directly linked to the prevention of death and serious injury. As noted in global guidance on road safety management provided by the World Bank, national goals and quantified objectives are the essential foundation stone in support of achieving better results. In their absence, the focus and rationale for all other institutional delivery functions (i.e. coordination, funding and resource allocation, legislation, promotion, monitoring and evaluation, research and development and knowledge transfer) lack cohesion.

A further conclusion reached in this review, is the lack of appropriate investment in results-focused, evidenced-based road safety activity which has influenced the amount and quality of road safety work. In many areas, including policing and health and local authority work, this has been severely reduced. Alongside the setting of goals and quantitative targets, more financial resource is required to improve joint working, innovation and efficiency in delivery. It is clear that the current level of spending is not commensurate with the current value of prevention and that there are many opportunities for large returns on investment presented by a wide variety of systematic, demonstrably effective interventions. The long-term Safe System approach involves working towards the prevention of serious and fatal crash injury risk for as long as it takes to achieve it acceptably and affordably. Safe System treatments in The Netherlands, Sweden, Norway and elsewhere have so far shown good ratios of benefits to cost and have proved to be publicly acceptable. Large, potential returns in investment for the British road network have been identified.

In summary, Britain has taken a bold next step in addressing the need for results focused road safety management by adopting Safe System in the British Road Safety Statement. In order to make a success of this and to prevent the substantial avoidable tragedies experienced daily on UK roads this report concludes that critical success factors will be:

- Strong ministerial leadership;
- A planned, systematic, accountable approach to road safety management with clear roles and responsibilities;
- The adoption of a national long-term goal towards the ultimate prevention of death and serious injury; and
- The adoption of national interim quantitative targets to 2030 to reduce death and serious injury, supported by a set of related safety performance objectives to foster closer management, more efficient delivery and use of public resource to achieve better results.

1. INTRODUCTION

1.1 Review Context

1.1.1 For many years, the United Kingdom has been a global road safety leader and is currently ranked in fourth place in terms of number of road deaths per number of inhabitants.[8]

1.1.2 Since 2000, there has been a 47% decrease in the numbers of deaths. However, in recent years, progress has slowed with just a 3% reduction in deaths achieved between 2010 and 2016. During 2016, 1,792 deaths and 24,101 serious injuries were reported in Britain. In reporting these results, the Department for Transport (DfT) acknowledged the road safety challenges brought about by a recovering economy, stating that "while Britain is in a period of stronger growth (in comparison with the recent recession) there is unlikely to be as large falls in casualties as there were earlier on without further significant interventions."

1.1.3 Following on from government's manifesto commitment[9] to an annual reduction in road deaths and injuries, the British Road Safety Statement, 2015 (BRSS) set out the Government's commitment to carry out continuing road safety activity. The BRSS also committed to addressing the socio-economic burden of road traffic death and injury on the economy. The value of preventing reported deaths and serious injuries in road crashes in 2016 was estimated at £8.3 billion. National and international road safety research and experience indicate that death and serious injury in Britain is largely preventable and that further cost-effective solutions could be deployed more often or more effectively

1.1.4 In Britain, led by the DfT, national responsibilities for road safety are shared across government agencies and between levels of government with the engagement of civil society and the business sector. Some responsibilities are currently shared with the European Union, while some are shared by all the devolved administrations in the United Kingdom.

1.1.5 Between 1987 and 2010 a national safety performance framework provided focus for national and local activity. No such framework has existed for Britain as a whole since 2010. In recent years, further decentralisation of some areas of public policy to local authorities has taken place and the impact of this on road safety activity needed to be clarified. At the same time, public sector departments with responsibilities for road safety have not been immune from the general, annual budgetary constraints towards reducing the national deficit.

1.1.6 The overarching theme of the BRSS is the government's adoption of the recommended Safe System approach to preventing death and serious injuries in road collisions. Its national application is cited as a key priority. The government's commitment to embedding a Safe System approach is evident in the safety performance framework for the short and longer term which it has set for Highways England. Safe System is being increasingly adopted in Britain in the devolved administrations, in towns and cities, and in local authority road safety strategies. Safe System is an ambitious approach which,

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[8] IRTAD (2017), Road Safety Annual Report, ITF/OECD, Paris.
[9] No manifesto commitment for road safety was made in the subsequent Conservative Party's 2016 election manifesto.

while building on current practice, is likely to necessitate some re-alignment in national road safety focus and activity over time.

1.1.7 The government committed to conduct a Road Safety Management Capacity Review (RSMCR) in the BRSS. In May 2017 the DfT commissioned SYSTRA Ltd. (SYSTRA), and partners Jeanne Breen, Kate McMahon and Professor Pete Thomas, to undertake a RSMCR to understand the current status of institutional delivery of road safety in Britain and to identify practical and actionable opportunities for strengthening joint working, local innovation, and efficiency on a national and local basis.

1.2 Road Safety Management Capacity Review (RSMCR)

1.2.1 *Road safety management* is a production process comprising a foundation of institutional management which produces system-wide interventions to produce results, usually expressed as goals and targets.[10]
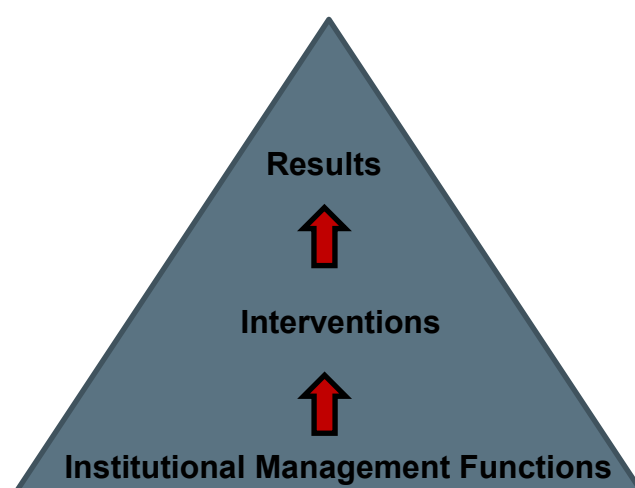
Figure 1.   Road safety management system[11]

1.2.2 *Road safety management capacity* is understood as a jurisdiction's readiness and capability to implement the necessary actions in an effective, efficient and timely manner and to achieve the changes in policy, standards and practice required to manage for better results.

1.2.3 *A Road Safety Management Capacity Review* (RSMCR) is a widely-used and specific benchmarking tool to support institutional delivery of national road safety strategy. It involves independent, qualitative peer review of a jurisdiction's road safety management system capacity across the good practice dimensions of results, interventions and institutional management functions.

1.2.4 This strategic assessment, benchmarking and capacity building tool was originally developed by the World Bank's Global Road Safety Facility (GRSF) to guide investments and assist countries in strengthening road safety management.[10]   The tool has been

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[10] Global Road Safety Facility (2009) Bliss T and Breen J. *Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects.* World Bank, Washington DC.
[11] Bliss and Breen 2009, building on frameworks of LTSA 2000, Wegman 2001, Koornstra et al 2002, Bliss, 2004.

widely tested and used successfully in many low and middle-income countries and in two high-income jurisdictions, Sweden and Western Australia. A RSMCR is recommended for use by the OECD/International Transport Forum and the World Road Association (PIARC) as a first step in further developing and extending effective Safe System investment strategies, plans and projects in all countries and contexts.[12] [13]

1.3 The Safe System Approach

1.3.1 Safe System is an ambitious approach to road safety management based on well-established safety and organisational principles. It is a synthesis of current knowledge about how to effectively manage for better results, and builds on best practice. It is recommended to all countries by international organisations such as the OECD, World Bank and World Road Association, and is being widely adopted worldwide at national, local and city levels. [14] [15] [16]

1.3.2 Safe System comprises both an explicit goal and strategy. The long-term Safe System goal is for the ultimate prevention of deaths and serious injuries through incremental targeted improvements within a specified safety performance framework. The Safe System strategy aims for a more forgiving road system that takes human fallibility and vulnerability into account. The road traffic system is planned, designed, operated and used such that people are protected from death and serious injury in road collisions. [5] [6] [7]

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[12] OECD/ITF (2008) *Towards Zero: Achieving Ambitious Road Safety Targets through a Safe System Approach*. Paris

[13] World Road Association (PIARC) (2015) Road Safety Manual https://roadsafety.piarc.org/en

[14] OECD/ International Transport (2008). Towards zero: ambitious road safety targets and the safe system approach.

[15] OECD/International Transport Forum (2016), Zero Road Deaths and Serious Injuries: Leading a paradigm shift to a Safe System OECD Publishing, Paris.

[16] World Road Association (PIARC) (2015) Road Safety Manual https://roadsafety.piarc.org/en

> **Safe System Principles**
>
> ○ People make mistakes and crashes will occur. A minority of crashes with serious consequences are caused by deliberate offences and risk-taking behaviour, the majority result from simple errors of perception or judgement by otherwise compliant users.
>
> ○ People are vulnerable. Our bodies have a known, limited ability to withstand crash forces without sustaining serious or fatal injury.
>
> ○ Roads and traffic are inherently dangerous. Past design has not sufficiently built in protection. A safe road traffic system needs to be tolerant of human physical limitations, so that crashes do not lead to death and serious injury.
>
> ○ Risk factors that are directly linked to road death and serious injury must be addressed.
>
> ○ Safe System requires shared responsibility which is accountable and cuts across sectors. Those who plan, design, operate and use the road system share responsibility for creating a road system in which crash forces do not result in death or serious injury. This responsibility is shared across government, business and civil society, and across both large and small organisations, requiring careful governmental leadership and an effective safety performance framework.
>
> ○ All parts of the system need to be strengthened: roads and roadsides, speeds, vehicles, the emergency medical system and road user standards - if one part fails, other parts will protect.
>
> ○ Safe System requires a proactive approach placing road safety in the mainstream of road traffic system planning, design and operation and use.

1.3.3 While a long-term goal is not set out explicitly, the overarching theme of the British Road Safety Statement (BRSS) is the Government's adoption of the Safe System approach to the prevention of death and serious injuries in road collisions.[17] It states:

> *"We can never entirely eradicate road collisions because there will always be some degree of human error; when collisions do occur the human body is inherently vulnerable to death or serious injury; and because of this, we should manage our infrastructure, vehicles and speeds to reduce crash energies to known levels that can be tolerated by the human body."*

1.3.4 The World Bank and the OECD identify four phases in road safety management based on the experience of high income countries, including the UK, and an increasing focus on systematic treatments and ambitious results. [18] [19] An outline of the paradigm shift to the

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[17] Department for Transport (2015). Working Together to Build a Safer Road System, British Road Safety Statement, London.

[18] OECD/ International Transport (2008). Towards zero: ambitious road safety targets and the safe system approach, Paris.

[19] World Bank Global Road Safety Facility (GRSF) (2009). Bliss T and J Breen, Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country guidelines for the conduct of road safety management capacity reviews and the specification of lead agency reforms, investment strategies and Safe System projects, World Bank, Washington DC.

best practice Safe System approach is provided below. Further details are provided in Appendix A, Section 1.

The evolutionary path to Safe System [5] [6]	
Phase 1: 1950s-60s:	Road user responsibility is the main focus
Phase 2: 1970s-80s:	'Systems approach' to intervention, pre-crash, during-crash and post-crash phases and system-wide measures
Phase 3: 1980-90s:	Targeted national plans of varying ambition, safer roads, safer vehicles, safer users
Phase 4: Mid-1990s:	Safe System goal and strategy involves: • scaling up of ambition – long-term goal towards the ultimate prevention of death and serious injury, interim quantitative targets for deaths and serious injuries, objectives for measurable activity; • direct focus on better protecting all users; • closer management of system-wide intervention; and • shared responsibility and accountability.

1.3.5   The application of Safe System is cited as a key national priority in the UK. While building on current practice, some re-alignment in national road safety focus and activity will be necessary over time. A comparison of Safe System with traditional approaches to road safety is presented in Table 1.

Table 1. Comparing traditional and Safe System approaches

TRADITIONAL APPROACHES	SAFE SYSTEM APPROACH
Aiming to reduce crashes in general	Aiming to prevent death and serious injury while accepting that crashes will occur
Limiting road safety ambition to a specified period	Aiming for the prevention of all death and serious injury over the long-term assisted by time-limited, interim targets
Asking how the driver crashed?	Asking why the road user was fatally or serious injured?

TRADITIONAL APPROACHES	SAFE SYSTEM APPROACH
Blaming the driver for the cause of the crash	Recognising that roads and roadsides, speeds, vehicles and emergency medical system design and performance all play a large part, and that good design can prevent death and serious injury
Reacting to crashes or incidents	Proactively identifying highest serious and fatal injury risks and working across the system to address them
Safety is a function of mobility	Mobility is a function of safety. Safe mobility is the goal
Safety is an add-on	Road safety embedded in mainstream sectoral policy as a core responsibility and designed in
Short term safety benefits accounted for in investments and maintenance (e.g. FYRR).	Long-term safety benefits are accounted for in investments, e.g. 20 years

1.3.6   Safe System implementation towards zero deaths and serious injuries is a long-term project and is in different stages of development in different countries and jurisdictions. Further details of identified best practice in implementing the Safe System approach are provided in Appendix A, Section 2.

1.4   Aims and Objectives of this Review

1.4.1   The overarching aim of the RSMCR is to carry out desk research and qualitative research to identify practical and actionable opportunities for strengthening joint working, local innovation, and efficiency on a national and local basis. In particular, the RSMCR seeks to understand the current status of institutional delivery of road safety in Britain by:

- Examining national, regional and local structures, responsibilities, accountabilities, relationships and coordination;
- Examining whether management effort and resources at all levels are being targeted effectively at designing, and enabling or delivering, evidence-based interventions and initiatives that can have the greatest impact in preventing and reducing the number of road users killed and seriously injured;
- Assessing the current road safety delivery landscape against the Safe System road safety management assessment framework and determining whether there is an imbalance in resource effort for each element and at each level (national, regional and local);

- Investigating how institutional capacity can be cost-effectively strengthened, within the context of the DfT's Road Safety Statement, to deliver a Safe System approach to road safety; and
- Identifying areas and means for improved joint working, local innovation and efficiency.

1.4.2 The RSMCR engages with the main governmental agencies and stakeholders who can deliver results in an appraisal of current approaches to road safety management. It aims to:

- Create a platform for a national dialogue on strengths and weakness of current activities to achieve better results based on international and national good practice;
- Address issues which are complex and important such as leadership, accountability for results and funding;
- Seek information and views from a wide range of sources with reference to the assessment framework;
- Provide feedback on any identified capacity weaknesses and how these can be addressed;
- Assist the development of a high-level consensus of senior management, wherever possible, on useful next steps to achieve better results; and
- Identify practical and actionable opportunities for strengthening delivery.

1.5 Report Structure

1.5.1 The full approach to the review, including methodology, is provided in Chapter 2.

1.5.2 The findings of the review are provided as follows:

- Chapter 3 examines Institutional Management Functions;
- Chapter 4 examines Interventions; and
- Chapter 5 examines Results.

1.5.3 In the Chapter 6 we present our conclusions, based on the study findings.

1.5.4 The report is supplemented by appendices, as follows:

- Appendix A outlines the Safe System approach in more detail;
- Appendix B provides a summary of the perceptions and views of stakeholders who were consulted during the review;
- Appendix C provides the full assessment framework which was used to guide the review; and
- Appendix D summarises the references cited within the report.

2. REVIEW APPROACH

2.1 Approach to RSMCR

2.1.1 Detailed World Bank guidance sets out the methodology for the conduct of a road safety management capacity review.[20]

2.1.2 An assessment framework comprising a series of checklists is used, based on identified good practice road safety management. This allows detailed examination and benchmarking by experienced, independent road safety specialists of all elements of the road safety management system and their linkages against effective practice. The main elements of this assessment framework comprise the key *institutional management functions* (results focus, coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation, research and development and knowledge transfer) which provide the foundation for multi-sectoral, system-wide *interventions* (safe roads and roadsides, safe speeds, safe vehicles, safe road use, post-crash care, safe and healthy modes, and safe work travel) to achieve *results*.

2.1.3 Working across results, interventions, institutional delivery elements of road safety management provides a framework for addressing the United Nations Road Safety Collaboration pillars and good practice implementation of the Safe System approach. It provides a systematic format within which to address the study objectives and for engaging the key agencies and stakeholders who can deliver road safety results.

2.1.4 The review traditionally engages with senior management of agencies and organisations. On the basis of evidence collected, and with reference to a range of published reports and statistical data, a draft report is presented, identifying the strengths and weaknesses in current approaches and recommendations on how best to overcome weaknesses. Report recommendations are tested at a final workshop to establish their feasibility for implementation by the road safety partnership. In some country reviews a long-term investment strategy is prepared with project concepts for demonstration projects to launch it.

2.2 Methodology

2.2.1 The overall approach to this study required an initial data gathering stage, continuous reference to the state of the art in road safety management as the review progressed[21] and engagement with a wide range of senior management, experts and stakeholders across road safety delivery. This allowed for synthesis of a broad range of information on the part of the senior road safety expert team to understand the strengths and weaknesses of current road safety management capacity, how to overcome any weaknesses and to inform our conclusions and recommendations.

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[20] Global Road Safety Facility (2009) Bliss T and Breen J. *Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects.* World Bank, Washington DC.

[21] Comprised of national and international reports, stakeholder reports, information from conferences attended by road safety experts. Data sources used are referenced throughout the report and provided in the reference table.

2.2.2   The complex organisational context for road safety required a variety of approaches to address the very broad range of organisations to be consulted. Methods of engagement for key stakeholders included face to face meetings with individuals and small groups (in line with established good practice in RSMCR), telephone interviews, and a larger workshop with plenary sessions and break out groups. In total 56 stakeholder organisations were engaged with during this phase of the study. Those consulted included stakeholders from:

- ⭘   Central government departments and agencies;
- ⭘   Local government;
- ⭘   Emergency services (police, fire service and ambulance service) and trauma care;
- ⭘   Business and industry;
- ⭘   Civil society (advisory groups, associations and charities); and
- ⭘   Academic institutions.

2.2.3   A list of organisations consulted is provided in Appendix B.

2.2.4   Semi-structured topic guides were used to aid the discussions. These were tailored to the individuals being interviewed to reflect their role and involvement in the road safety agenda, and followed the assessment framework, as found in Assessment C.

2.2.5   In addition, five on-line surveys were undertaken with road safety practitioners involved in delivering road safety. Links to relevant on-line questionnaires were sent out by relevant umbrella bodies. Questionnaires for each organisation type were carefully tailored to address their specific remit in the road safety agenda. Questionnaires, which followed the assessment framework in Appendix C, were sent to:

- ⭘   Road Safety Officers in each local authority (distributed via RSGB)
  - 33 questionnaires were returned;

- ⭘   Local Authority Highway Surveyors in each local authority (distributed by ADEPT)
  - 24 questionnaires were returned;

- ⭘   Chief constables (distributed by the National Police Chiefs' Council)
  - 12 questionnaires were returned;

- ⭘   Ambulance trusts (distributed via the Association of Ambulance Chief Executives)
  - 1 questionnaire was returned[22];

- ⭘   Car fleet managers (distributed to members by the Association of Car Fleet operators)
  - 17 questionnaires were returned; and

- ⭘   Road haulage company managers (distributed to members by the Road Haulage Association)
  - 4 questionnaires were returned.

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[22] Due to only receiving one response out of a possible 10 English Ambulance Trusts, this data was analysed and reported on within the stakeholder interviews.

2.2.6   Following collation of findings from the stakeholder engagement exercises a half day workshop was held for all those previously engaged. The workshop provided a forum to discuss the findings of the review and enable stakeholders to comment on the deliverability of the recommendations formed to date. This ensured that the findings to date were realistic and practicable and appropriately represented the consensus and key themes from our research. The workshop comprised presentations of findings to date, plenary sessions and break out groups.

2.3   Assessment Framework

Overview

2.3.1   This section presents the broad scope of the review largely based on the internationally recognised road safety management assessment framework produced by the World Bank[23]. An updated assessment framework provided the review team with the system-wide scope for the conduct and the reporting of the road safety management capacity review. A model of the framework is presented in Figure 2.[24]

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[23] Global Road Safety Facility: Bliss T and J Breen (2009). Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects. Global Road Safety Facility, World Bank, Washington.

[24] This road safety management model is based on World Bank Global Road Safety Facility, Bliss and Breen (2009) building on the frameworks of Land Transport Authority (2000), Wegman, (2001), Koornstra et al (2002), Bliss, (2004), and updated, Breen, (2017) with reference to World Road Association (2015); OECD/ITF (2016).

Results

Final outcomes
Long-term Safe System goal & interim
targets to reduce and ultimately prevent
deaths and serious injuries

Intermediate outcomes
Targeted, measurable safety performance indicators
for activity linked to preventing deaths and serious injuries

Institutional outputs
Deliverables that seek improvements in intermediate and final
outcomes which can also be measured, targeted and monitored.

Interventions

Safe Roads and Roadsides, Safe Speeds, Safe Vehicles
Safe Road Use, Post-Crash Care, Safe and Healthy Modes, Safe Work Travel

Institutional management functions

Results focus - leadership, goal and target-setting, Coordination, Legislation, Funding and resource
allocation, Promotion, Monitoring and Evaluation, Research and development and knowledge transfer

Figure 2.   Safe System road safety management system model and assessment framework

2.3.2   Assessment framework questions to be addressed by the review team were tailored for the purposes of this capacity review to assess all three elements of the national road safety management system, and are provided in Appendix C. The general scope is summarised below.

Institutional management functions

2.3.3   Based on research into successful, results-focused road safety management, *institutional management* comprises a range of functions. The overarching function is *results focus* supported by *coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation* and *research and development and knowledge transfer*. This part of the report is structured under these headings. Capacity for the delivery of each function is important at national, local and organisational levels to produce effective, system-wide intervention.

2.3.4   Successful practice underlines the important role played by the lead agency acting on behalf of national government. The overarching institutional delivery role of the lead

agency is the development of strategy and performance frameworks to facilitate results-focused, multi-sectoral road safety activity in full consultation with key agencies and the broader road safety partnership. The lead agency has a key role in the delivery of all institutional management functions while other sectors may lead in the specific delivery of intervention.

Interventions

2.3.5 *Safe System* intervention comprises activity within and between the following: Safe Roads and Roadsides, Safe Speeds, Safe Vehicles, Safe Road Use, Post-Crash Care, Safe and Healthy Modes and Safe Work Travel. The latter two elements are being given new attention in view of encouragement being given to public transport use, the growth of active travel and the opportunities provided by more focus on work-related road safety.

2.3.6 This element of the assessment framework seeks to establish how far current practice is aligned with Safe System principles and key aspects of the delivery of interventions at system and organisational levels. These include consideration of a number of factors which are provided in Appendix C.

Results

2.3.7 The final element of the assessment framework is to review the results achieved nationally in terms of:

- Final outcomes (deaths, serious injuries and societal value of prevention);
- Intermediate outcomes (measurable activity directly linked to the prevention of death and serious injury (seat belt use, crash helmet use, level of average speeds, speed limit compliance, safety quality of roads (iRAP rated) and vehicles (Euro NCAP rated), emergency medical response times); and
- Institutional outputs (measurable institutional activity which is directly linked to achieving intermediate outcomes).

3. INTRODUCTION TO INSTITUTIONAL MANAGEMENT FUNCTIONS

3.1 Introduction

3.1.1 World Bank guidance on road safety management identifies seven institutional management functions which provide the foundation on which national road safety management systems are built[25,26]. These comprise:

- Results focus;
- Coordination;
- Legislation;
- Funding and resource allocation;
- Promotion;
- Monitoring and evaluation; and
- Research and development and knowledge transfer.

3.1.2 This guidance is based on identified effective practice over time amongst successful performers, including the United Kingdom led by the Department for Transport, as well as identified unsuccessful practice and performance. It represents the first ever codification of the key elements of institutional delivery and is taken up in guidance and manuals by other international organisations including the International Transport Forum[27], the World Road Association [28] and the International Standards Organisation[29].

3.1.3 Chapters 4 to 10 outline the findings of the RSMCR under each of the seven institutional management function headings.

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[25] Global Road Safety Facility (2009) Bliss T and Breen J. *Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects.* World Bank, Washington DC.

[26] Global Road Safety Facility (2013) Bliss T and Breen J. *Road Safety Management Capacity Reviews and Safe System Projects Guidelines* (2013) Global Road Safety Facility, World Bank, Washington DC.

[27] International Transport Forum (2016), Zero Road Deaths and Serious Injuries: Leading a paradigm shift to a Safe System OECD Publishing, Paris.

[28] World Road Association (PIARC) (2015) Road Safety Manual https://roadsafety.piarc.org/en

[29] International Standards Organisation (2012) ISO 39001 International Standard: Road Traffic Safety (RTS) Management Systems - Requirements and Guidance for Use (2012

4. RESULTS FOCUS

4.1 Classification

4.1.1 *Results focus is* the overarching institutional management function in managing for better road safety results. All other institutional management functions are subordinate to this function and contribute to its achievement.

4.1.2 *Results focus* concerns the pragmatic specification of ambition to improve road safety and the means agreed to achieve this ambition. It addresses leadership, goal and target-setting and accountabilities for these, and defines the level of safety to be achieved in the long-term and in the interim. It sets out a safety performance management framework for the delivery of interventions and their intended outcomes. The aim is to provide a clear and accountable focus on results to allow for cohesion and direction of all other institutional functions and related interventions, and to prevent the efficiency and effectiveness of safety initiatives from being undermined.

  ○ *Leadership role* – The lead agency for road safety plays the major role in driving the national, multi-sectoral shared responsibility for road safety into concerted results-based action with involvement in all institutional management functions. It usually takes responsibility for managing coordination comprising inter-governmental coordination, vertical coordination, coordination of delivery partnerships between government, professions, non-government, business sectors and Parliament. It plays the key role, alongside other key partners and stakeholders in ensuring a comprehensive legislative framework; securing sustainable sources of annual funding; creating a rational framework for resource allocation; high-level promotion of the shared responsibility for road safety; monitoring and evaluation of safety performance; and directing research and development and knowledge transfer.

  ○ *Goals, targets and objectives* – The setting of a long-term Safe System goal for the ultimate prevention of deaths and serious injuries, supported by time-limited quantified targets to reduce deaths and serious injuries and the factors that are linked to these represents *results focus* in its most ambitious form.

  ○ *Accountability* – A variety of accountability mechanisms are used in successful practice. Long-term approaches are often enshrined in legislation. Public service targets and annual performance agreements are means by which government demonstrates its role and accountability for road safety responsibilities. Multi-sectoral strategies demonstrate commitment and provide the opportunity for formal sign up of the shared responsibility for delivering goals and targets. Memoranda of understanding between partiesare used to cement working partnerships towards target delivery. Regional and local accountabilities are established through regional and local targets, performance monitoring and funding mechanisms. The lead agency and the top management of organisations adopt goals and measurable objectives. Annual reporting and result conferences provide transparency, encourage declaration of intent and confirm the wider shared responsibility.

4.2 Main findings

Introduction

4.2.1 Successful road safety management in bringing national road safety outcomes under better control has been highlighted internationally and in global guidance.[30] As in other high-performing countries, the expectation of achieving further success in Britain is rooted in the aspirations of all working in the field.

Who is responsible?

4.2.2 In Britain, led by the Department for Transport (DfT), national responsibilities for road safety are shared across government departments and agencies (transport, highways, health, justice, policing, health and safety), between levels of government (central and local), the business sector (e.g. manufacturers of vehicles and safety equipment, the fleet and haulage industries and insurance) and civil society (e.g. advisory groups, associations and charities). Some responsibilities are currently shared with the European Union, for example the Whole Vehicle Type Approval scheme within Single Market harmonisation. While some responsibilities are shared by all the devolved administrations in the United Kingdom, some aspects of delivery are pursued separately. The DfT takes the lead in road safety on behalf of the UK in international harmonisation and other work.

4.2.3 The main activity in the UK is carried out nationally and locally, although in England there is fledgling activity at regional level. The Secretary of State for Transport has responsibility on behalf of government for safety of the road traffic system in England and Wales; it is the Transport Minister in Scotland. Lead responsibility for road safety in Northern Ireland lies with the Department of the Environment. Within the DfT, Road Safety Standards and Services Directorate (RSSS), which sits within the Roads, Devolution and Motoring Group, is in the lead on road safety policy and the coordination of road safety activity. Within RSSS the key road safety strategic capacity lies within Road User Licensing Insurance and Safety Division (RULIS). However, other divisions have responsibilities that are relevant to road safety policy, for example International Vehicle Standards, Freight Operator Licensing, Active Accessible Travel where cycling and walking policy sits, Local Transport Infrastructure and national road investment.

4.2.4 In addition to central DfT divisions some major activities relevant to road safety are located in the agencies responsible for Driver and Vehicle Standards (DVSA), Driver and Vehicle Licensing (DVLA), and Vehicle Certification (VCA). These agencies play a key role with regard to driver training and testing and vehicle roadworthiness standards. Responsibility for safety on the strategic roads network rests with Highways England (which has taken over from the former Highways Agency and this is discussed in the Safe Roads and Roadsides section). This means that RSSS and RULIS have important roles in coordinating road safety policy responsibilities across several other Divisions in the Department, the Departmental Agencies, and Highways England.

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[30] World Bank Global Road Safety Facility (GRSF) (2009). Bliss T and J Breen, Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country guidelines for the conduct of road safety management capacity reviews and the specification of lead agency reforms, investment strategies and Safe System projects, World Bank, Washington DC.

4.2.5   At national level, the other key central government Departments are the Home Office, the Department of Health and the Ministry of Justice.

4.2.6   The Home Office has been 'in the front line' of the first duty of the government which is to 'keep citizens safe and the country secure'. In recent years, however, where operational responsibilities for road traffic policing have been further devolved amongst police and police and crime commissioners, it has played a lesser role. While it sets strategic lines of policy in many areas, including some where localism is increasingly active, there is no national policing strategy nor evident commitment to keeping citizens safe on the road.

4.2.7   The Department of Health, supported by a range of agencies including National Health England and Public Health England, has the mission of 'helping people to live better for longer'. It has core, strategic responsibility for road injury surveillance in the health sector, emergency medical response, major trauma care, the rehabilitation of road crash victims and road injury prevention. Death and serious injury in road traffic is a leading cause of death for school aged children and young adults and the lead cause of major trauma. Engagement in this review with the health sector in general has proved to be problematic, and a strong focus on road traffic injury prevention was not evident either in published documents or in the views of several stakeholders. The Public Health England "Strategic Plan for the Next Four Years: better outcomes by 2020" sets out how the organisation intends to protect and improve the nation's health. Despite showing that road collisions are tenth in a list of causes of years of life lost between 1990 and 2013, there is no mention in the Plan of any road safety oriented activity or any objective to reduce the effects of road collisions on public health. There is an intention to "support work across government on sustainable travel to promote increased levels of physical activity through walking and cycling" but no recognition that this needs to be done in conjunction with measures to improve safety for walkers and cyclists.

4.2.8   The Ministry of Justice (MoJ) has responsibility for courts, prisons, sentencing and penalties. Its main concern regarding road safety is serious driving offences causing death or injury. It is content for DfT to take the lead on offences such as speeding and mobile phones. DfT takes advice from MoJ on changes to penalties and offences, but in general the initiative for legislation comes from DfT, especially for lower level offences.

4.2.9   The Department for International Development (DFID) plays a key role in supporting road safety work and international organisations such as the World Bank's Global Road Safety Facility in low and middle-income countries.

4.2.10   The lessening involvement of key agencies reported by stakeholders and evident from key published policy documents and websites (including Home Office, Department of Health, NHS, PHE and Ministry of Justice) with core responsibilities raises important questions of ownership of road safety and the meaningful recognition of shared road safety responsibilities in key sectors.

4.2.11   Local authorities have a general duty under Section 39 of the Road Traffic Act 1988 to carry out road accident studies and a range of ensuing, appropriate preventative action. The Localism Act 2011 paved the way for major changes in the delivery of public policy. At local level, the distribution of road safety responsibilities is varied and complex. They generally sit within transport, health, roads or a mixture of these.

Goals and target-setting

4.2.12   In good practice, road safety is cited as a key, explicit objective in transport strategy as shown in Box 1.

BOX 1: STRATEGIC GOAL STATEMENTS OF GOOD PRACTICE COUNTRIES

European Union: "EU transport policies aim at fostering clean, <u>safe</u> and efficient travel throughout Europe, underpinning the internal market of goods and the right of citizens to travel freely throughout the EU." *European Commission, Transport Directorate, 2011*

Sweden "The objective of transport policy is to ensure the economically efficient and sustainable provision of transport services for people and businesses throughout the country." Accessibility is the functional objective and health, safety and environment are the impact objectives. "The design, function and use of the transport system will be adapted to eliminate fatal and serious accidents. It will also contribute to the achievement of the environmental quality objectives and better health conditions*." Ministry of Enterprise, Energy and Communications, Stockholm, May 2009*

Norway: "The Government aims to provide an effective, universally accessible, <u>safe</u> and environmentally friendly transport system that covers the Norwegian society's transport requirements and advances regional development." *National Transport Plan, 2010–2019. Norwegian Ministry of Transport and Communications*

Scotland: Our vision is of "an accessible Scotland with <u>safe</u>, integrated and reliable transport that supports economic growth, provides opportunities for all and is easy to use; a transport system that meets everyone's needs, respects our environment and contributes to health;" *National Transport Policy December 2006, Scottish Executive, Edinburgh*

Australia: "Australia requires a <u>safe</u>, secure, efficient, reliable and integrated national transport system that supports and enhances our nation's economic development and social and environmental well-being." *National Transport Policy, Australian Transport Council, 2009*

New Zealand: "The government's vision for transport in 2040 is that: *'People and freight in New Zealand have access to an affordable, integrated, <u>safe</u>, responsive and sustainable transport system.'" New Zealand Transport Strategy, 2008 Ministry of Transport*

4.2.13   From 1987 until 2010 a carefully derived strategic national safety policy framework provided focus for national and local activity and substantial reductions in deaths and serious injuries in road crashes in Britain.

4.2.14   A comprehensive road safety strategy together with a target to reduce all casualties by one-third by 2000, based on the average for 1981-1985, was published in 1987. Although the target for all casualties was not met there was a reduction of 39% in deaths and 49% in serious injuries by 2000. A new road safety strategy for the year 2010 was published in 2000[31] that set casualty reduction targets, based on the average for 1994-98, of a reduction of 40% in the number killed and seriously injured, and 50% for children killed and seriously injured. As shown in Table 2, all these targets were exceeded by 2010.

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[31] Department for Transport, Local Government and the Regions (2000). *Tomorrow's roads-safer for everyone, London*

Table 2. Reported road casualties by severity

	1994-98 AVERAGE BASELINE	2000	2010	% CHANGE BASELINE TO 2010	2015	2016*
Killed	3578	3409	1850	-48	1730	1792
KSI	47656	41564	24510	-49	23874	25893
All	319928	320283	208648	-35	186189	181384
Child KSI	6860	5202	2502	-64	1964	2102

* due to changes in reporting systems in 2016 serious casualties not fully comparable with earlier years.

4.2.15   In 2011, an independent evaluation of the Delivery of Local Road Safety commissioned by the Department for Transport found that "the existence of national targets has provided a useful stimulus to local partnership working." [32]

4.2.16   Post-2010 there was a change in focus away from national numerical casualty targets and in 2012 the British Road Safety Statement was published with a commitment to invest in further road safety activity. [33]   This is discussed further below. As Table 2 shows, all casualties continued to decline between 2010 and 2015, whilst deaths rose slightly in 2016, but the changes in reporting systems explained in the DfT's statistical release make full comparisons of 2016 with 2015 uncertain. [34]

4.2.17   While goal and target-setting has continued in other areas of public policy, e.g. health, walking and cycling, emissions, house-building, no such measurable framework has existed for national road safety performance in Britain since 2010. This has taken place against the background of localism, involving further decentralisation of some areas of public policy to local authorities, and annual budgetary constraints towards reducing the national deficit. In line with a government manifesto commitment in 2010 to an annual reduction in road deaths and injuries (which was not renewed in 2015) the British Road Safety Statement (BRSS) was published in late 2015 with a commitment to invest further in continuing road safety activity, but endorsing devolution and local decision-making rather than centralised national targets for the UK.[33]

4.2.18   The overarching theme of the BRSS is the government's adoption of the internationally recommended Safe System approach to the prevention and reduction of death and serious injuries in road collisions. Its national application is cited as a key national priority and a range of strategies and activities is foreseen. As outlined earlier, Safe System is an ambitious approach which, while building on current practice, is likely to necessitate some re-alignment in national and local road safety focus and activity over time. The long-term Safe System goal for the eventual elimination of deaths and serious injuries is not set out explicitly in the BRSS for Britain as a whole. Departmental road safety targets are not set,

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[32] AECOM/TIHR Road Safety Research Report No 124: Delivery of Local Road Safety, DfT, September 2011.

[33] Department for Transport (2015). Working Together to Build a Safer Road System, British Road Safety Statement, London.

[34] DfT (2017). Reported Road Casualties in Great Britain; 2016 Annual Report, September 2017.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648081/rrcgb2016-01.pdf

apart from those for reducing cyclist casualties in the Walking and Cycling Strategy. The DfT's plan for 2015-2020 aims for 'safe, secure and sustainable transport'.

4.2.19   This goal and supporting measurable targets and strategy is being adopted increasingly in the United Kingdom in the devolved administrations, in towns and cities such as London and Bristol and in some local authority road safety strategies.   The government's commitment to embedding a Safe System approach nationally is evident in the safety performance framework for longer term goals and interim targets which it has set for the Strategic Road Network and in the setting up of a Safer Roads Fund (discussed in subsequent sections on Funding and Safe Roads and Roadsides).[35] [36] The objectives are: that by 2040, the number of KSI on the Strategic Road Network should approach zero; by 2020, the aim is for a 40% killed and serious injury reduction (2005–09 baseline); and by 2020 > 90% of travel on the Strategic Road Network should be on roads with an iRAP rating of 3* (or equivalent).

4.2.20   The National Police Chiefs Council has a 5-year strategy for England "Policing the Roads in Partnership 2015-2020" that has a safety objective "working in partnership to achieve safe roads, free from harm" and a commitment to the reduction of collisions leading to road death and serious injury, but it does not include numerical targets.

4.2.21   Public Health England has not set or been set goals or targets for road traffic injury prevention but includes killed or seriously injured on England's roads in its performance indicator framework.[37]

4.2.22   Globally such target-setting is widely advocated by the World Health Organisation, the International Transport Forum, World Bank, World Road Association and national experts. The World Report on Road Traffic Injury Prevention recommended national road safety strategies with ambitious but realistic targets.[38] In the 2008 and 2016 reports the International Transport Forum recommended the adoption of a Safe System approach comprising a long-term goal, supported by robust interim targets and intervention strategy .[39] [40] The World Bank report on implementing the recommendations of the World Report on Road Traffic Injury Prevention recommended that countries should prepare a national road safety strategy and plan of action with ambitious safety targets.[41] The relationship between setting quantified road safety targets and road fatality reduction is well established in research findings.[42]

4.2.23   Though not yet evident as a consideration in national policymaking, the UK is a signatory to global road safety targets in the UN's Sustainable Development Goals and to the collective responsibility for meeting the long-term EU road safety goal to 2050 and a casualty reduction target of 50% between 2010 and 2020.

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[35] Highways England Delivery Plan 2015-2020 (2015), HMSO, London.

[36] DfT announcement 13th January 2017.

[37] Department of Health (2016). Improving outcomes and supporting transparency Part 2: Summary technical specifications of public health indicators Updated August 2016

[38] WHO (2004). World report on road traffic injury prevention. Geneva.

[39] OECD/ITF (2008). Towards zero: ambitious road safety targets and the safe system approach.

[40] OECD/ITF (2016). Zero Road Deaths and Serious Injuries: Leading a paradigm shift to a Safe System OECD Publishing, Paris

[41] World Bank Global Road Safety Facility (2009). op. cit.

[42] Allsop R.E, Sze, N.N., Wong, S.C (2011) An update on the association between setting quantified road safety targets and road fatality reduction. Accident Analysis and Prevention 43 (2011) 1279–1283.

4.2.24   The Review has found widespread concern amongst most stakeholders including several key agencies[43] that the absence of explicit national goals and interim targets and the safety performance monitoring associated with these is having a negative and serious impact on the focus on results and levels of activity, both nationally and locally. The lack of a national target has had an impact on the priority given to road safety locally and its ability to compete for scarce funds. As is typical for many paradigm shifts in knowledge, Safe System is well understood by a small cadre of well-informed, professional experts. However, despite the reference material available in the international literature, the implementation of the Safe System approach is not well understood and is in its infancy, and there are capacity problems for its delivery. As stakeholders indicated[44], while it has been well-received in many instances, many are aware of the term without fully grasping what it means for their organisation, whilst others admit to lacking knowledge of it.

National and local leadership

4.2.25   The DfT, as lead agency, carries out its road safety duties in a more complex context than was evident a decade ago. A focus on the government's large transport projects e.g. autonomous vehicles and high-speed rail, localism, reductions in staffing and resourcing, austerity, the lack of a manifesto commitment to goals and targets for road casualty prevention and reduction all shape current activity. While a high-level commitment to road safety in key units is evident, the absence of defined national road safety ambition in a measurable safety performance framework is setting back effort. A typically expressed DfT view was that while the focus on death and serious injury is not specified, it is ever present within departmental activity. However, it was also noted that the focus was 'different' when compared with previous times of targeted reductions in deaths and serious injuries and more Cabinet office scrutiny, leading to a more reactive as opposed to proactive approach. It is evident that the absence of targets and perceived lack of rationale for joint working is making inter-departmental and inter-agency coordination as well as coordination across DfT more difficult. While the operational strategic policy priorities are limited to young drivers, rural roads, and automated vehicles, there seems to be general agreement that a more strategic focus on where to make the most impact is required across the whole system and to identify new priorities, underpinned by the Safe System approach. In terms of accountability, the only mechanism through which government is publicly held to account is through stakeholder, media and political pressure.

4.2.26   Approaches to road safety at local level are diverse. Leadership responsibilities for road safety in local authorities are often assigned to lead units and elected representatives, but the picture is mixed and are sometimes shared between more than one local authority office. In cases where responsibility is not specifically assigned, problems with joint working, both internally and externally, as well as the monitoring of performance are reported. Representative organisations report that around half of local authorities have set targets to reduce deaths and serious injuries; some have adopted Safe System; a few are sceptical of what could be achieved in the current context; and most believe Safe System implementation is dependent upon new resource and national guidance.

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[43] See Appendix B, Results Focus: Central Government Departments/Agencies; Local Government; Advisory Groups; Associations and Charities; Business and Industry; and Academic Institutions
[44] See Appendix B, Results Focus: Central Government Departments/Agencies; Local Government; Advisory Groups; Associations and Charities; Business and Industry; Emergency Services; and Academic Institutions

Organisations representing Roads Directors, Chief Police Officers, local road safety managers all report that, even where local targets exist, substantial barriers are presented by the lack of national targets and the associated ownership of and leadership on these. These include difficulties in maintaining road safety as a local priority, in sectoral activity, in road engineering and in the publicity and enforcement associated with key road safety rules and community education.

4.2.27 Aside from changes in national budget arrangements for road safety, the lack of national targets has had impacts on levels of staffing, financial resources, coordination and all other delivery functions associated with achieving better results which are discussed later. Many local authorities report that there is too much funding pressure to respond to local demands which are unrelated to KSI priorities. As reported by in an in-depth joint PACTS/RAC Foundation review of local authority activity:

> *"The loss of targets has had a significant impact on the impetus for road safety activity in some councils and the ability of local practitioners to negotiate with "those who don't understand, don't value or don't see the role for road safety in the local priority list".[45]*

4.2.28 A commonly held view amongst many stakeholders, including local government and devolved administrations, is that without more ambition in the national effort there is danger of stagnation and complacency and failure to build on past success. The devolved administrations and many working at national and local levels want to see the re-establishment of a national road safety performance framework with a long-term Safe System goal and supporting measurable targets and objectives to help correct this focus. While the devolved administrations and local authorities are free to set their own goals, there are many key areas which are delivered by central government agencies alone, such as driver and vehicle safety standards and road network safety management and investment frameworks.

4.2.29 Against concerns about the plateauing of road deaths in recent years, there is strong support for the setting of goal and targets from most stakeholders, including the devolved administrations, governmental agencies, local government, and the police. In *Motoring for the Future,* the House of Committee Transport Committee recommended that DfT should adopt a strategy that included the objective of "reduced or eliminated fatalities and serious injuries on roads" and "consider what impact setting targets to reduce serious injuries and fatalities might have on road safety in the UK".[46]

4.2.30 In the past, national targets have also provided a strong focus for the activity of professional organisations, NGOs and the research sector.

4.2.31 An additional need pointed out by safety experts and reflected in the advice of international organisations, is to explore synergies between road safety and other societal goals and priorities to establish the shared benefits. The World Road Association has carried out a recent, comprehensive review of the opportunities which include: [47]

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[45] PACTS/RAC Foundation (2015). Road Safety Since 2010, RAC Foundation, London.

[46] House of Commons Transport Committee, Motoring for the Future 2015: 9-13).

[47] World Road Association (PIARC) (2015). Road Safety Manual: A manual for practitioners and decision makers on implementing safe system infrastructure, World Road Congress (PIARC), Paris. https://roadsafety.piarc.org/en/introduction

- *Environment, public health* and *road safety*. For example, land use and transportation planning and the provision of safe infrastructure facilities to promote increased walking and cycling (where the challenges of simultaneously enhancing take up of cycling and ensuring safe cycling are large). Measures to reduce vehicle speeds will, in addition to safety benefits, also result in less greenhouse gas emissions and local air pollution, greater energy security, and improved physical wellbeing.

- *Liveable City, Safe City policies* providing efficient networks where the shortest or quickest routes coincide with safe routes. Road safety can also be aligned with *tourism goals* since the risks of road traffic injuries are appreciably higher for tourists than many other types of health risk. Road safety also aligns well with societal provisions for the *rights of the child.* Governments signing the Convention are required to provide a safe environment and protection to children from injury and violence[48].

- In *regional and neighbourhood policies,* road safety improvements can contribute substantially to *poverty reduction* goals and *international development*. Road safety also needs to be at the heart of *occupational health and safety objectives* since road traffic injury is a leading contributor to work-related death.

- Not least, activity to address death and serious injury in road traffic is inter-linked to *economic objectives*, given the substantial value of prevention of the death and injury burden, and the contribution of road safety to the sustained quality and value of national goods and services.

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[48] The Convention on the Rights of the Child, UN General Assembly Resolution 44/25 (1989),

4.3 Summary of strengths and weaknesses

4.3.1 A summary of strengths and weaknesses for results focus is provided in Table 3.

Table 3. Strengths and weaknesses of Results Focus

Strengths	*Weaknesses*
- An established lead agency (DfT) with long-standing high reputation and identified Minister with road safety responsibilities. - Leadership by the DfT in moving to the Safe System approach. - National adoption of the Safe System approach in British Road Safety Statement (2015). - Understanding by many agencies and stakeholders of the importance of setting road safety goals, targets, objectives. - Long-term Safe System goal and interim casualty reduction targets set by government for Highways England with disaggregated targets across its 7 regions for the SRN. - Specific goals and targets set in walking and cycling strategy for reducing cyclist casualties. - Long-term Safe System goal and interim casualty reduction targets set by devolved administrations; by TfL for London; and in other cities such as Bristol. - At metropolitan and city level, some Mayors are providing strong road safety leadership. - Goals and targets to reduce death and serious injuries set by a number of local authorities. - Initiation of road safety management capacity review to explore opportunities for enhanced activity at national, regional and local levels.	- Insufficient central government leadership in road safety over the last decade. - Road safety is not perceived as core business by all responsible government agencies. - Lack of an agreed national safety performance framework to achieve results. - A strong national focus on demonstrably effective action to prevent and mitigate death and serious injury is not universal amongst agencies. - No interim targets set to reduce deaths and serious injuries at national level. - No intermediate outcomes/performance indicators agreed at national level. - No road safety targets in annual agency plans. - No explicit long-term Safe System goal set for future road safety at national level. - Formal accountabilities for improving road safety are not set out at national level. - Nationally identified priority areas for action are, as yet, insufficiently consistent with implementing a Safe System approach. - Safe System is not understood by many and is not filtering downwards from lead agency level. - A holistic Safe System approach is not evident in local authority road safety activity. - A reduction in local authority target-setting is reported. - Local priorities are often directed by perceptions of need by elected representatives and public, rather than on an evidence-base.

4.4 Recommendations

4.4.1 This section provides the key recommendations for the IMF results focus.

Central government and its agencies

4.4.2   The DfT should:

- Strengthen national leadership in delivering improvements in safety outcomes for all road users through the development and publication of a new British road safety strategy and action plan.
- Strengthen the strategic capacity of RULIS to develop a new road safety strategy and to take the lead and coordinate road safety activity across DfT and with key partners.
- Ensure that achieving better road safety results is seen as core business and supported by appropriate capacity by all the responsible government departments and their agencies.
- Provide leadership to local authorities, encourage Safe System activity and increased understanding of the concept.
- Ensure that road safety objectives are evident in the mainstream of transport strategy and policy documents and in investment strategies such as for the Major Road Network.
- Ensure that identified priority areas for action are consistent with implementing Safe System.
- Underpin the government's adoption of the Safe System approach with an agreed *national road safety performance framework* to form the core of a new British road safety strategy. This would provide the focus for all other institutional delivery functions - coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation and research and development and knowledge transfer. The national road safety performance framework would:

  - Set out the long-term Safe System/Towards Zero goal of working towards the ultimate prevention of deaths and serious injuries;
  - Set interim quantitative targets to 2030 to reduce the numbers of deaths and serious injuries;
  - Set measurable, intermediate outcome objectives for activities to 2030 which are directly related to the prevention of death and serious injury. The main indicators used in implementing Safe System strategies are:
    1. Increasing compliance with speed limits on different road types
    2. Reducing average speeds on different road types
    3. Increasing the level of seat belt use and child restraint use
    4. Increasing the level of helmet use for two-wheeled vehicle users
    5. Reducing driving while impaired by alcohol and drugs
    6. Increasing compliance with in-car telephone use rules
    7. Increasing the safety quality of the SRN and main road network to the highest iRAP *rating
    8. Increasing the safety quality of the new car fleet to the highest Euro NCAP * rating
    9. Increasing compliance with emergency medical response times.

  - Set a safety performance framework for the new Major Roads Network comprising a long-term goal towards the prevention of death and serious injury, supported by interim, time-bound quantitative objectives to reduce death and serious injury, as well as setting quantitative objectives which include improvements in iRAP star ratings.

- Set out in national strategy the shared benefits that road safety can bring to other societal objectives, e.g. public health, occupational health and safety, environment, tourism and the economy.
- To ensure effective shared responsibility, set out formal accountabilities for improving road safety and ensure, through high-level leadership and promotion, that road safety is seen as core business by all the responsible government departments and their agencies.

4.4.3 The Home Office should:

○ Recognise that the prevention of death and serious injury in road traffic is a core responsibility of the Home Office and actively support the enforcement of key road safety rules and related activity in national policing strategy.

○ Support the establishment of a new national road safety performance framework towards the ultimate prevention of deaths and serious injuries in road crashes and objectives for better compliance with key road safety rules.

4.4.4 The Department of Health and Social Care and its agencies, National Health England and Public Health England, should:

○ Recognise their core responsibility in policies and activities for road injury surveillance in the health sector, emergency medical response, major trauma care, the rehabilitation of road crash victims and road injury prevention.

○ Recognise in policies and activities that road traffic injury is a leading cause of death for school aged children and young adults and the lead cause of major trauma.

○ Support the establishment of the new road safety performance framework towards the ultimate prevention of deaths and serious injuries in road crashes.

4.4.5 The Health and Safety Executive should:

○ Recognise in policies and activities its core responsibility for the prevention of death and serious injury in work-related road traffic and ensure that it is in the mainstream of occupational health and safety policy.

○ Support the establishment of the new national road safety performance framework towards the ultimate prevention of deaths and serious injuries in road crashes.

4.4.6 The National Police Chiefs Council and police forces should:

○ Conduct increased enforcement of key road safety rules related to the prevention of death and serious injury.

○ Support improved crash investigation and encourage and facilitate the adoption by all police forces of a single reporting system – CRASH – to the national road casualty database.

○ Support the establishment of a national road safety performance framework towards the ultimate prevention of deaths and serious injuries in road crashes (see results focus).

4.4.7 Highways England should:

○ Ensure that interventions on the Strategic Road Network are appropriately focused on the prevention of death and serious injury and increasingly aligned with its long-

term goal, interim quantitative targets, and its star rating improvement objectives rather than focussed on the prevention of all collisions.

Local government

4.4.8   Local authorities should:

- Appoint a cabinet lead for road safety to ensure that road safety remains high priority for local authority activity and to improve accountability for legal duties.
- Look to best international practice and city practice in London for leadership of Safe System, road safety goal and target-setting and integrating road safety into public procurement when benchmarking their activity.
- Adopt the Safe System approach and long-term goal towards the ultimate prevention of death and serious injuries in road safety strategies and plans.
- Set measurable targets to 2030 to reduce the numbers of deaths and serious injuries and supporting road safety performance frameworks, as proposed for the national framework.
- Adopt a policy of promoting evidence-based approaches to road safety to make best use of public resource.
- Engage fully and support the national implementation of the Safe System approach by implementing it into the mainstream of local authority activity in all relevant sectors, e.g. highway engineering, public health, procurement of transport services.

Professional sector and civil society

4.4.9   Professional organisations, NGOs and the research sector should:

- Focus activity on the prevention and mitigation of serious and fatal injury in road crashes in professional road safety work.
- Engage fully and support the national implementation of the Safe System approach into the mainstream activity of all sectors concerned with road safety.

Business and industry

4.4.10   Business and industry should:

- Focus on the mitigation and prevention of serious and fatal injury in road crashes and engage fully and support the national implementation of the Safe System approach into the mainstream of all sectors concerned with road safety (see also safe work travel and knowledge transfer).

5. COORDINATION

5.1 Classification

5.1.1 *Coordination* concerns the orchestration and alignment of the interventions and other related institutional management functions delivered by government partners and related community and business partnership to achieve the desired focus on results. It is addressed across four key dimensions:

- Horizontally across central government;
- Vertically from central to regional and local levels of government;
- Specific delivery partnerships between government, non-government and business at the central, regional and local levels; and
- Parliamentary and elected representative relations at central, regional and local levels.

5.1.2 The aim of coordination is to produce accountable decision-making at senior institutional levels which are appropriately resourced at national, regional and local levels. This includes an identified secretariat in the lead agency, which has an assigned role and capacity for the function, to harmonise delivery arrangements across partner agencies to achieve road safety results and to serve as a platform for mobilising political will and resource. In addition, opportunities are taken to align road safety objectives with other key sustainable development objectives, for example, public health, environmental protection, occupational health and safety and reducing disadvantage to identify shared benefits, as discussed in the Results Focus section.

5.2 Main findings

5.2.1 Successful road safety coordination in Britain is an increasingly complex task within the context of devolution and localism, the absence of national goals and targets to provide cohesion for multi-agency and multi-sectoral activity, and current budgetary constraints.

Coordination across central government and key partners

5.2.2 As demonstrated both internationally and nationally, an effective partnership of governmental departments and agencies with core responsibilities is key to national delivery of better road safety results. The main government departments and agencies with road safety responsibilities are viewed as transport, highways, health, justice, policing and health and safety. Since the first British casualty reduction target was set in 1987 there has been a strong tradition in cross-agency coordination to achieve agreed targets, orchestrated on behalf of government by the lead agency, the DfT. There was extensive interdepartmental and stakeholder involvement in the development of the road safety strategy and targets for 2010, through the Interdepartmental Road Safety Working Group and a series of stakeholder groups on specific topics, followed by the setting up of a Road Safety Advisory Panel. However, the level of commitment across central government was variable, and after the second three-year review of the Strategy a Road Safety Delivery Board was established bringing together key delivery partners and tasked "to monitor progress in delivering the strategy, to sort out problems and issues, to assist in developing closer partnerships and to spread good practice." The Scottish Government

continues this tradition with its good practice decision-making coordination hierarchy comprising the Strategic Partnership Board and Operational Partnership Board.

5.2.3   Currently, a Road Safety Delivery Group (RSDG) brings together key departments and agencies and stakeholders to share information on national road safety activity and in support of the British Road Safety Statement and wider devolved responsibilities. Several agencies and organisations consulted[49] identified that this is a valuable discussion and information-sharing group, rather than a decision-support forum, as in previous times. The level of inter-agency coordination of former years is not evident. A lessening of interest amongst several key government agencies, as evidenced by reported lack of attendance or limited contributions to the RSDG or difficulties in bi-lateral engagement was reported to the review by several organisations. The devolved administrations, amongst others, believe there is useful information sharing within the RSDG, but missed opportunities for better coordination activity across the UK in key areas of road safety which could add value everywhere.

5.2.4   The DfT reports to a Road Safety Minister and a view was expressed that greater coordination was envisaged in terms of reporting on progress achieved on joint delivery of road safety results.

5.2.5   There is no formal inter-departmental group on road safety for government decision-making, as in previous past practice and as recommended internationally. The view within DfT is that the absence of targets and the lack of recognition that road safety delivery goes beyond the responsibilities of DfT would make it difficult to ensure that the right people would attend. Furthermore, a view was expressed that meetings might not represent good use of senior people's time given constraints on resources. The engagement with other agencies is generally on an issue by issue basis rather than at a broad strategic level.

5.2.6   DfT works with Ministry of Justice on legislation for serious driving offences, and the Sentencing Council, (an independent body including judiciary, Director of Public Prosecutions (DPP), police victims etc.), promotes greater consistency in sentencing, sets out culpability criteria and increases public understanding of sentencing, including dangerous driving. Activity around the British Road Safety Statement by different units within the DfT is coordinated by an internal DfT Portfolio Board chaired by RULIS. Some forty-seven progress reports on actions are periodically provided. The functions of this group are under review. The main links are with the Active Accessible Travel (who are responsible for walking and cycling), Freight Operator Licensing and International Vehicle Standards. However, there was little coordination evident between RULIS and Active Accessible Travel on the Cycling and Walking Strategy. The Strategy includes targets for increased cycling and walking, but does not have numerical safety targets, only a broad objective to reduce cyclist KSIs. Following the announcement of the cycle safety review responsibility for cycle safety moved to RULIS and this is a permanent change and good coordination between the two units is reported.

5.2.7   The potential for achieving better coordination across government around achieving ambitious results is seen widely by the road safety professionals as being highly desirable.

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[49] See Appendix B, Coordination: Central Government Departments/Agencies; and Advisory Groups, Associations and Charities

5.2.8   On the basis of identified good practice and on the basis of findings from discussions with policymakers and stakeholders, the review concludes that a new national road safety coordination hierarchy should be established to strengthen joint working. This would comprise a Minister-led, high-level Road Safety Strategic Partnership Group (RSSPG) with senior representatives from central and local government, police and other key road safety partners focused on agreeing priorities within a new road safety strategy and steering and overseeing delivery of Safe System ambition and quantified objectives. The RSSPG would be supported by a working group comprising key departmental, agency and stakeholder representatives with operational road safety responsibilities for road safety, and independent experts, to deliver Safe System objectives through multi-sectoral activity at national and local level.   Strengthened coordination would also require the strengthening of the capacity of RULIS to take the lead in coordination of road safety delivery within DfT and across all levels of government.

Coordination secretariat
Sits within road safety strategy unit within RULIS.
Function:
To support effective national coordination across and between levels of government; to coordinate with regional road safety partnerships for major and local network safety management.

ROAD SAFETY STRATEGIC PARTNERSHIP GROUP (RSSPG)
Chair: Minister for Road Safety
Director level membership from DfT, Health, Home Office, HE, DVSA, HSE, Devolved administrations, Local authority association lead, NPCC traffic lead, ADEPT highways lead, other invited partners.
Function:
Steering and overseeing delivery of a new national road safety strategy and performance framework. Meeting three times annually.

ROAD SAFETY WORKING GROUP (RSWG)
Chair: Head of Road Safety DfT
Road safety management level membership from DfT units, Health, Home Office, HE, DVSA, HSE, Devolved administrations, Local authority association, NPCC, ADEPT, other invited partners and experts.
Function:
Reporting to the RSSSPG, the RSWG would have responsibilities for the development of a new national road safety strategy and performance framework and identifying delivery priorities and mechanisms. Meeting every two months. A new road safety research advisory group would report to this group. (See Research section)
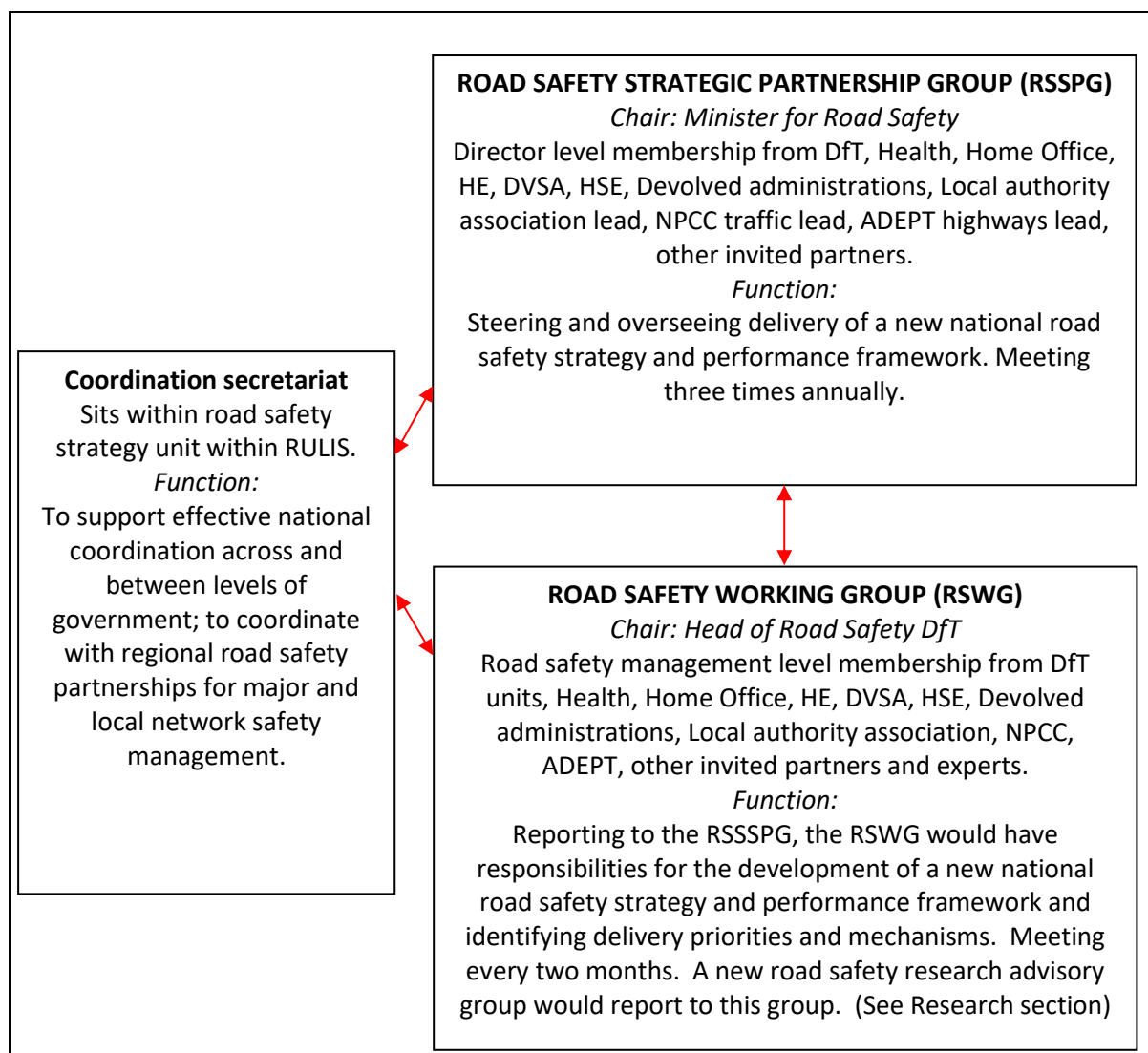
Figure 3.   **Proposal for a national road safety coordination hierarchy**

Vertical coordination between central and local government

5.2.9   When countries reach an advanced phase of their road safety management system, more responsibilities are often devolved to regional, state and provincial government as well as local authorities and districts, adding to and building on what can be achieved at central level. In identified good practice, this enhancement of scope of road safety activity is supported by national safety performance and investment frameworks within which regional and local targets are set along with regional and local coordination partnerships; national guidance; performance monitoring and a range of other delivery support.

5.2.10   Police, roads directors and road safety managers are represented on the DfT's Road Safety Delivery Group, and the Safer Roads Fund is providing new focus for safety engineering activity. Highways England has commenced the establishment of a regional road safety coordinator in each of its seven regions in support of multi-sectoral activity at local level to reach regional targets for the strategic road network. Coordination between the THINK! campaign and local education, training and publicity is reported as being generally good though with some room for strengthening in the sequencing of activity. Multi-sectoral coordination in road safety in cities such as London is strong and effective between TfL, the Boroughs and the Metropolitan Police.

5.2.11   Despite this evidence of joint working between national and local levels, many local professionals report a general sense of abandonment by central government in the support of their road safety delivery.

5.2.12   The main focus for DfT in regional partnerships is currently connectivity rather than safety, and the previous Regional Offices that coordinated local authority road safety activity no longer exist. A road safety focus in Local Enterprise Partnerships is not evident. Regional traffic engineering groups which discuss aspects of road safety from time to time have been set up by ADEPT but are limited to the sector. No multi-sectoral regional road safety partnerships are evident although, such local safety partnerships exist and could provide a regional model to achieve economies of scale.   Regional road safety coordination will be important for the new Major Road Network on which the DfT will be consulting shortly (see Safe Roads and Roadsides.)

5.2.13   While many local road safety partnerships are operational and are reported to be working effectively, others are losing their previous traction in terms of membership and budgets. Some involve broad sectoral groupings of roads, health, police, fire service and sometimes local business, engineering consultancies and national non-governmental organisations. Others involve police-led partnerships, in some cases with less partnership working than previously. The Road Safety Partnership Grant which was available to local authorities before 2010 is no longer available.

5.2.14   The table below sets out good practice coordination arrangements for decentralised work according the World Bank (2009).

Table 4. Characteristics of good practice decentralisation[50]

CHARACTERISTICS OF GOOD PRACTICE DECENTRALISATION [51]	CURRENT CENTRAL GOVERNMENT PRACTICE FOR GREAT BRITAIN
Establishing a legal duty for road safety at local and regional levels	🟢
Requiring regional and local targets within a national target framework	🔴
Establishing and funding regional and local coordination bodies	🔴
Providing specific allocations of resource for effective road safety measures	🟠
Helping to establish community partnerships with local road safety coordinators financed by the lead agency to stimulate local action	🔴
Identifying safety performance indicators and monitoring of action against set targets	🔴

Source: Based on World Bank , 2009[53]

5.2.15 The potential for achieving better vertical coordination and support between central and local government around achieving better results is large and seen widely by the road safety community as being highly desirable.

Bilateral delivery partnerships

5.2.16 Within DfT a police liaison officer (PLO) acts as facilitator and advisor on police matters related to road safety policy implementation to assist DfT in understanding the role of police, and how policy can be practically delivered by the police[52]. DfT is in the process of assuming responsibility for the Collisions Reporting and Sharing (CRASH) from the Home Office. The DfT has taken the opportunity to modernise the system, place it in an Azure cloud and ensuring it can work on any mobile device. This renewed system known as CRASH 7 will be rolled out to police forces in summer 2018. There remains a reluctance in a number of forces to adopt the system, even though it is cost-free. The PLO is also working with the Home Office in seeking to deliver Evidential Roadside Breath Test equipment capable of achieving Type Approval.

5.2.17 Police and highway authorities continue to engage at national, local and city levels, although in most places traffic policing levels have reduced significantly (See Safe Road

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[50] Green: in place; Amber: partially in place; Red: not in place

[51] World Bank Global Road Safety Facility (2009), Bliss T and Breen J Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects, World Bank, Washington DC.

[52] See Appendix B, Coordination: Central Government Departments/Agencies

Use). Establishing good relationships with PCCs seen as important, but their focus is local rather than regional.

5.2.18   At local authority level, new bilateral partnerships are being established with Public Health England and Accident and Emergency Departments (e.g. Cambridgeshire County Council with Addenbrookes Hospital) in a few areas as funding and monitoring and evaluation initiatives[53].   The most common alignments with other societal goals are with public health, active travel and sustainable development.

Engagement with civil society and business

5.2.19   A wide range of civil society and business organisations work together in road safety with varying involvement and interests in road safety[54]. Organisations are working to improve the coordination of advocacy activity.

5.2.20   The British Road Safety Statement highlighted the importance of work-related road safety and efforts are currently being made through PACTS and the Transport Safety Commission to achieve better cooperation and coordination between government agencies and the profession. See section on Safe Work Travel for further discussion.

5.2.21   The Motorists' Forum is also identified by many as a useful and broad coordination body, though its priority is currently perceived as emissions reduction.

Engagement with Parliament

5.2.22   The DfT engages in House of Commons Transport Committees on road safety issues and with other parliamentary committees and groups. Annual road safety debates in the Commons have taken place, although in recent years, Westminster Hall debates and House of Lords debates have largely been initiated by Parliamentarians.

5.2.23   An All-Party Transport Safety Parliamentary Group exists and meets regularly.   The secretariat is provided by the Parliamentary Advisory Council for Transport Safety (PACTS) which is a member of the DfT's Road Safety Delivery Group. The Constituency Dashboard (run by Road Safety Analysis for PACTS supported by Direct Line) is proving helpful in Parliamentary engagement with road safety.

International coordination for national results

5.2.24   European Union road safety coordination is pursued within the European Commission's High-Level Group on Road Safety, a range of other committees and within the Council of Ministers groups. A key issue is the effect of BREXIT on relationships with the EU and on road safety.

5.2.25   Britain is also represented in UN ECE Working Groups and chairs the UN WP 29 World Forum on vehicle standards. The DfT is also a member of the influential European New Car Assessment Programme which it helped to establish in the late 1990s, though is observed to take a lesser role at the current time.   Britain contributes via health and

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[53] See Appendix B, Coordination: Local Government
[54] See Appendix B, Coordination: Advisory Groups, Associations and Charities; Business and Industry; and Academic Institutions

transport officials to the WHOs Global Road Safety Status Report and the International Transport Forum's Annual Road Safety Report. In recent years, vehicle safety experts observe that central government experts have contributed less to international road safety review with little engagement with expert ITF/OECD working groups and their research reports compared with past periods due to resource constraints.

5.2.26   The police have strong involvement in the European TISPOL organisation on traffic policing and various national sectors engage with their European and international counterparts at technical and sectoral level. PACTS and other national organisations are members of the European Transport Safety Council and engage actively in EU road safety work. The UK research sector plays a large role in EU road safety research programmes.

5.2.27   In conclusion, Britain has a range of well-established coordination structures at national and local levels but activity, in general, remains highly fragmented and lacks focus. Coordinated decision-making processes and structure across the governmental agencies for policy, strategy, legislation and budgets needs tightening to achieve better results and take forward the Safe System approach.

5.3   Summary of strengths and weaknesses

5.3.1   A summary of strengths and weaknesses for coordination is provided in Table 5.

Table 5. Strengths and weaknesses of Coordination

Strengths	*Weaknesses*
- Britain has a well-established information sharing structure at national level bringing together key road safety partners. - More regular reporting to Ministers on progress is envisaged. - Mature, local road safety partnerships continue to play a key role. - New regional road safety coordination for the strategic road network is being developed by Highways England.	- The absence of a national road safety performance framework for the interim and long-term is resulting in a lack of focus and cohesion in coordination efforts and fragmented activity. - Inter-departmental coordination has been insufficient to ensure that road safety objectives and Safe System are embedded in the policies of responsible agencies. - Little engagement in road safety delivery is evident by key Departments. - Vertical coordination between central and local government is present but insufficient when compared with identified good practice. - Multi-sectoral involvement is reported to be falling away in local road safety partnerships.

5.4   Recommendations

5.4.1   This section provides the key recommendations for the IMF coordination.

Central government and its agencies

5.4.2   The DfT and its governmental partners should:

- Strengthen coordination across and between all levels of government in support of the national road safety performance framework which will provide focus, rationale and coherence for meaningful shared responsibility (see also Results Focus).
- Establish a Minister-led, high-level Road Safety Strategic Partnership Group with senior representatives from central and local government, police and other key road safety partners focused on agreeing priorities within a new road safety strategy, and steering and overseeing delivery of Safe System ambition and quantified objectives. This would be supported by a working group comprising key departmental, agency and stakeholder representatives with operational road safety responsibilities for road safety, and independent experts, to deliver Safe System objectives through multi-sectoral activity at national and local level.
- Strengthen the capacity of DfT road safety staff to take the lead in coordination of road safety delivery within DfT and across all levels of government.
- Strengthen coordination with local authorities by a variety of means: through establishment of the national road safety performance framework to provide cohesion for efforts, as well as through funding, incentives and guidance.
- Support the establishment of regional road safety partnerships in coordination with Highways England for the major and local road network in support of goals and interim quantitative objectives with ring-fenced grant funding to local authorities.

5.4.3   Highways England should:

- Develop further the capacity of its fledgling regional road safety partnerships to include a focus on the proposed Major Road Network and local roads.

Local government

5.4.4   Local authorities should:

- Work in partnership with civil society to deliver road safety results in support of the ultimate ambition for elimination of deaths and serious injuries.

Professional sector and civil society

5.4.5   The professional sector and civil society should:

- Make efforts to engage in activity needed to build Safe System implementation capacity in Britain.
- Coordinate through a national organisation (for example PACTS, whose current efforts in Safe System promotion could be built upon).

Business and industry

5.4.6   Business and industry should:

- Actively seek opportunities to work with the public sector to improve road safety in their sector.

6. LEGISLATION

6.1 Classification

6.1.1   *Legislation* is defined by the Word Bank as concerning "the legal instruments necessary for governance purposes to specify the legitimate bounds of institutions, in terms of their responsibilities, accountabilities, interventions and related institutional management functions to achieve the desired focus on results."   This means ensuring that government department and agency role, responsibilities and accountabilities are clearly defined in legislation and other instruments.

6.1.2   This function ensures that legislative instruments for road safety are well matched to the road safety task. It addresses land use, road, vehicle, user safety standards (e.g. driver licensing and testing and key road safety rules) and post-crash medical care standards and compliance with them. It involves capacity of specialist legislative and technical expertise within government to develop and consult on enforceable standards and rules with due consideration to cost, effectiveness, practicality and public acceptability.

6.2 Main findings

Introduction

6.2.1   Over the years Britain has established a robust legislative framework and has earned a high reputation internationally for its processes including review and consolidation of legislative provisions for road safety. [55] The responsibility for legislation on driving offences is shared between the Ministry of Justice (MoJ) and the DfT, but which department takes responsibility for different elements is not always clear. In general, it is considered that initiative for legislation comes mainly from the DfT, particularly for lower level offences. The MoJ is perceived to take responsibility for more serious breaches of the law that result in sentencing rather than fixed penalties.

6.2.2   Various legislative needs concerning specific interventions; alignment to the Safe System approach; the potential implications of BREXIT and new international trade deals for legislation and standards, and legislative needs related to the management of occupational road risk are raised in later discussion under the specific interventions to which they are relevant.

6.2.3   The principal matter outlined here is whether or not legislation addresses the current road safety task in terms of the bounds of institutional delivery within the organisation of road safety in Britain.

Legislated roles and responsibilities

6.2.4   A key issue in an increasingly complex and changing organisational context is how meaningful shared responsibility for implementing a Safe System approach can be

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[55] World Bank Global Road Safety Facility (2009), Bliss T and Breen J Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects, World Bank, Washington DC.

delivered. Are the roles and responsibilities and accountabilities of the key agencies set out sufficiently? From the evidence collected for this review, it appears that the recent accountability framework around the establishment of Highways England may provide the only national good practice example. The role, responsibility and accountability framework of the lead agency, the road safety duties and accountabilities of other central government departments and agencies, as well as those of local authorities for road safety, all deserve further review, as cited in World Bank good practice guidance and this is supported by stakeholders who expressed concern that it is often confusing to see where responsibilities lie in an increasingly decentralised context. New local and regional road safety partnerships discussed in the previous section and later Intervention sections may benefit from more formal establishment.

6.2.5   Countries implementing Safe System as the long-term approach to road safety typically set up in-house reviews of roles and responsibilities. Sweden set up a Committee of Enquiry for this purpose and decided to embed their long-term approach to road safety in legislation to provide formal endorsement and in the interests of continuity. In the Netherlands, the Start-Up of Sustainable Safety involved the specification of new contractual, accountable arrangements between central government and regional agencies.

Legislative capacity issues

6.2.6   In the current context, the capacity needs associated with addressing the transport-related aspects of BREXIT mean that potential for reviewing or introducing or consolidating road safety legislation (which is overdue) in line with identified good practice is likely to be confined to the most urgent priorities and to the initiatives of Parliamentarians. For instance, in its response to the consultation on "Driving offences and penalties relating to causing death or serious injury" the Ministry of Justice states that it intends to bring forward proposals for legislation when parliamentary time allows.[56]

6.2.7   It was also noted that reduced legislative capacity may provide opportunity for greater use of other tools such as incentives and investment and encourage a stronger focus on legislative needs of greater rather than lesser consequence for road safety.

Harmonisation issues within and outside the UK

6.2.8   BREXIT, possible international trade deals which involve mutual recognition of standards of differing safety quality, devolution and localism all raise additional complexities for the legislative framework for road safety. Adherence to best practice, understanding by road users of what applies where, and differing enforcement regimes in various parts of Britain are all key issues.

6.2.9   Most professionals working in road safety expressed a desire for a similar legislative environment post BREXIT, including retaining unified licence rules and standards, and EU Whole Vehicle Type Approval. The 'danger in the detail' of mutual recognition policies for standards in international trade deals was a commonly expressed concern. A view was also expressed that BREXIT will provide an opportunity in due course to look beyond

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[56] Ministry of Justice. October 2017. Response to the consultation on driving offences and penalties relating to causing death or serious injury.

European legislation, particularly in relation to improved safety management of commercial vehicles and their drivers.

6.2.10   Some legislation applies to the whole of Great Britain or the UK whilst some aspects are devolved. Professionals pointed to the need to ensure that each British jurisdiction ensures that it is working to international best practice e.g. blood alcohol, speed limits and graduated driver licensing rules, and that it learns from the activity of its neighbours.

6.2.11   Some sub-national jurisdictions lead in road safety by adopting specific good practice requirements for goods vehicles before they allow access to their networks and in public procurement processes. The TfL's Work-Related Road Risk (WRRR) requirement provides one example. National leadership in the national promotion and adoption of regulations reduces the burden on the business sector in dealing with a variety of requirements.

6.3   Summary of strengths and weaknesses

6.3.1   A summary of strengths and weaknesses for legislation is provided in Table 6.

Table 6.   Strengths and weaknesses of Legislation

Strengths	Weaknesses
- Britain has a generally robust legislative framework for road safety built over a long period of time. - Review and consolidation processes of legislation are established. - Local authorities have a legal duty to carry out road safety activities.	- Institutional roles, responsibilities and accountabilities for implementing the long-term Safe System approach are not established. - The role of the governmental lead agency for road safety is not set out in legislation. - Local lead responsibilities for road safety lack clarity. - No recent in-house review of needs to meet the current road safety task has been conducted. - Consolidation of road safety legislation is overdue. - The current capacity for managing legislation on road safety is being used elsewhere.

6.4   Recommendations

6.4.1   This section provides the key recommendations for the IMF legislation.

Central government and its agencies

6.4.2   The DfT and its governmental partners should:

○   Clarify the shared responsibility for road safety across agencies by reviewing institutional roles, responsibilities and accountabilities and other specific legislative needs, in support of implementing the long-term, multi-sectoral Safe System approach (See also section on Results Focus).

○   Set out the national lead agency role for road safety in legislation.

- Consider whether a new duty should be placed on local authorities to identify where responsibility lies for road safety at cabinet level (see local authority recommendation under Results Focus).
- Consider specific new legislation for issues raised in later intervention chapters, including a review of national road classification and speed limits, the blood alcohol limit and graduated driver licensing.
- Carry out periodic consolidation of road safety legislation in line with good practice.
- Ensure capacity is available for identified evidence-based legislative road safety changes which address the prevention of death and serious injury.
- Take forward legislation as soon as practicable following the MoJ's response to the consultation on "Driving offences and penalties relating to causing death or serious injury".

7. FUNDING AND RESOURCE ALLOCATION

7.1 Classification

7.1.1 *Funding and resource allocation* concerns the financing of interventions and related institutional management functions on a sustainable basis using a rational evaluation and programming framework to allocate resources to achieve the desired focus on results.

7.1.2 This function seeks to ensure that road safety funding mechanisms are sufficient and sustainable. As part of this, a rational framework for resource allocation allows the making of strong business cases for road safety investments based on cost-effectiveness and cost-benefit analyses. To achieve more ambitious performance, countries may need to establish new funding sources and mechanisms and align with other societal objectives to increase the scope for safety investments and build better business cases. For example, the United Nations Road Safety Collaboration's Global Road Safety Plan (2011) recommends that 10% of all infrastructure spending should be allocated to road safety treatments.

7.2 Main findings

Introduction

7.2.1 The value of preventing reported deaths and serious injuries in road crashes in 2016 was estimated at £8.3 billion. It is very difficult to provide an estimate of what is being spent on road safety at governmental level, let alone the entire national spend at the current time. It is clear, however, that the level of spending is not commensurate with the current value of prevention. Stakeholders consulted as part of the review reflected the view of road safety experts in asserting that there are many opportunities for large returns on investment presented by a wide variety of systematic, demonstrably effective interventions. The long-term Safe System approach involves working towards the prevention of serious and fatal crash injury risk for as long as it takes to achieve it acceptably and affordably. Safe System treatments in The Netherlands, Sweden, Norway and elsewhere have so far shown good ratios of benefits to cost and have proved to be publicly acceptable.[57]

7.2.2 The British Road Safety Statement commits to: "Maintaining investment in local road safety activity and management in a way that supports devolved local decision making (including the important contribution safer and more sustainable environments can make to improving health outcomes) and ensuring Highways England continues to improve road safety."

7.2.3 The organisation and availability of funding of road safety has undergone major changes since 2010 which are having or will have substantial effects on the amount and quality of activity.

7.2.4 Some recent developments are positive, such as:

  O   the new ring-fenced Safer Roads Fund (2016);

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[57] PACTS (2016), Transport Safety Commission, London.

- Highways England safety funding for the strategic roads network;
- promised new investment in a new Major Roads Network, highway maintenance and the amounts available for cycling safety;
- DfT funding of CRASH system for use by police forces in national crash database reporting

7.2.5   These provide many opportunities for putting the Safe System approach in the mainstream of network safety and asset management. (See Safe Roads and Roadsides.)

7.2.6   Other developments have been negative but are still shaping activity today. The removal of the ring-fenced Road Safety Grant and the substantial reductions in local highway investments and in traffic policing levels experienced since 2010 have had visible impact on the level and quality of activity. According to stakeholder interviews and surveys with local authority representatives[58], most local authorities are struggling to carry out and prioritise effective road safety activity and to move to the new Safe System paradigm. Even where alternative sources of funding are explored, all activity to prevent death and serious injury in road crashes is constrained by current levels of funding and protracted bidding processes.

7.2.7   For the moment, road safety remains an add-on rather than being in the mainstream of local activity. Against the large expenditure on transport projects such as HS2, recent announcements of larger highway investments and spending on autonomous vehicles, choices are being made in the transport sector at national and local levels. The prevention of avoidable and costly deaths and serious injuries in road collisions has a low priority in investment choices, despite positive rates of return on investment in safety measures, in a time of budget cuts and growing demand in other areas such as social care. At local level, as reported in previous sections, local authorities are finding it harder to prioritise funding for road safety without the impetus provided in the past from national targets[59]. Added to these problems there is the need for resource allocation processes in asset management and other activity to better support the implementation of a Safe System approach.

Public sector investments

(a) Highway engineering funding

Highways England - Strategic road network

7.2.8   In England, the Strategic Road Network is managed by Highways England on behalf of the Transport Secretary with other road and local transport networks managed by local authorities. The strategic road networks of Scotland, Wales and Northern Ireland are devolved to their respective governments, with the remainder of the road network managed by local authorities. Highways England is responsible for delivering £11.351 billion of improvements, including a range of safety measures, to England's motorways and major A roads by 2020. This includes a ring-fenced fund of £250 million for Cycling, Safety and Integration. Of this around £105 million will be spent on additional safety measures. It is not possible to separate out more general safety expenditure from other capital expenditure within the £11.351 billion.

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[58] See Appendix B, Funding & Resource Allocation: Local Government
[59] See Appendix B, Funding & Resource Allocation: Local Government

Major Roads Network – Highways England and local authorities

7.2.9 In July 2017, the Transport Investment Strategy set out the DfT's priorities and approach for future transport investment decisions on investment in transport infrastructure. It envisages investment of over £15 billion between 2015 and 2021 on England's motorways and major trunk roads. The document includes a commitment to consult on ring-fenced funding and the establishment of a new 'Major Road Network'. This would see a share of the annual National Road Fund, funded by Vehicle Excise Duty (VED), given to local authorities to improve or replace the most important A-roads under their management.

Greater London Authority Transport Grant

7.2.10 As outlined in the British Road Safety Statement, the Department for Transport provides the Greater London Authority (GLA) with a transport grant for Transport for London (TfL). For 2015/16, £1.516 billion from DfT contributed to TfL's capital programme, which included a £4 billion Road Modernisation Plan29 to improve junctions, bridges, tunnels and public spaces in the capital and implement innovative designs for cycling in London.

Local roads funding

7.2.11 Local roads comprise 98% of the road network in England which local highway authorities have a legal duty to maintain. The main source of funding for local transport projects in England is through the DfT's Local Transport Directorate, which is mainly capital funding.

7.2.12 The British Road Safety Statement stated "Between 2010 and 2015, DfT allocated £4.7 billion to local highway authorities in England (outside London) to help repair the local roads for which they are responsible and make them safe for all road users. This funding was £1 billion more than provided in the previous Parliament. In addition, in November 2015, the government announced that it was allocating £6.1 billion between 2015/16 to 2020/21. As part of this funding, from 2016/17, we are introducing an incentive element (totalling £578 million between 2016/17 to 2020/21) which will reward those authorities who can demonstrate that they are operating efficiently and effectively. This was updated in the Roads Funding Information Pack published in January 2017 which set out various elements of funding and showed allocations by region:

   - Local Highways Maintenance funding – Needs Element: £4.7 billion over 6-year period up to the end of this Parliament, £801 million in 2017/18.
   - Local Highways Maintenance Challenge Fund - £75 million in 2017/18 through a bidding round.
   - Local Highways Maintenance Incentive/Efficiency Element - £75 million in 2017/18 through a mechanism additional to the Needs Based Formula funding.
   - Pothole Action Fund - £70 million initially allocated for 2017/18 with a further £46million new funding for that year added in Autumn Budget 2017.
   - National Productivity Investment Fund - £185 million allocated by formula funding in 2017/18. Following a competition in summer 2017, a further £244million will be allocated to local authorities for in2018/19 and 2019/20 (see below).
   - Safer Roads Fund - £175 million between 2017/18 and 2020/21, £25 million in 2017/18 (see below).

7.2.13 The allocation for maintenance totals £5.3 billion up to 2021, £1.02 billion of which is for 2017/2018. This compares with £3.7 billion a decade ago. The funding for road safety

schemes in the Information Pack is targeted at specific sections of local "A" roads, for which local authorities compete for funding.

7.2.14 In October 2017, the winners of a £345.3 million funding package to improve local roads and public transport in England was announced to upgrade essential local roads, cut congestion, improve safety and shorten journey times for drivers. £244 million of this funding is from the competition for the National Productivity Investment Fund, the remaining £101.3 is for two new major roads, in Middlewich in Cheshire and Worcester in the Midlands.

7.2.15 The Review has found that highway maintenance revenue budgets have been cut by around 50% since 2010, having had to compete, largely unsuccessfully, with other local revenue needs. Highway authorities report that this is affecting work across the board with safety work reported to frequently be carried out only when presenting a minimal cost. Safety has not been explicitly included in asset management and road maintenance activity despite the opportunities for large returns on investment and the need to integrate Safe System approaches into the mainstream of highway engineering, as identified by the World Road Association.[60] The main focus is reported to be on life of the asset, road surface conditions and treatments that require less repair (as opposed to life-saving treatments such as safety barriers which require replacement after fulfilling their crash protective function)[61]. See Safe Roads and Roadsides for further discussion.

7.2.16 The integrated Transport Block Funding is a capital grant for all local authorities to spend on small scale transport improvements which can include road safety. This has been an important source of funding for local authority safety engineering work. The current budget is £258 million per annum up to 2020/21, £1.3 billion in total. This represents a cut of nearly half of annual allocations before 2010. Only a few local authorities have maintained their capital spend on road safety. Despite the case that can be made for it, activity to address road death and serious injury numbers and risks is not competing successfully with other policy objectives due to local funding pressures. All activities have been hit.

Table 7. Summary of capital funding sources

FUNDING STREAM	2017/18	ALLOCATION METHOD
Highways Maintenance Block Needs Element	801	Formula
Highways Maintenance Block Incentive Element	75	Formula
Highways Maintenance Challenge fund (Tranche 1 £100m, Tranche 2A £75m)	175	Competed
Integrated Transport Block	258	Formula

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[60] World Road Association (PIARC) (2015). Road Safety Manual: A manual for practitioners and decision makers on implementing safe system infrastructure, Paris. https://roadsafety.piarc.org/en/introduction

[61] See Appendix B, Funding & Resource Allocation: Local Government; and Advisory Groups, Associations and Charities

FUNDING STREAM	2017/18	ALLOCATION METHOD
Pothole Action Fund (£70m plus extra £46m announced at Budget 2017)	116	Formula
National Productivity Investment Fund for 2017/18	185	Formula (in 2017/18 only)
Safer A Roads Fund	25	Targeted with bids required

7.2.17   According to the Local Authority Revenue Expenditure and Financing: 2017-18 Budget, England produced by communities department DCLG, spending by local authorities on highways and transportation is set to fall to £4.24bn in 2017/18 compared with £4.4bn last year (2016/17), which in turn saw a fall of £521m (around 10%) from 2015/16. Analysis published by the Local Government Association ahead of the Autumn Budget forecasts that for every pound of council tax collected by councils 56p could be spent on caring for the elderly, vulnerable adults and children. This is up from 41p in 2010/11. Howard Robinson, chief executive of the Road Surface Treatments Association (RSTA) said (prior to this review): 'The result will be more poorly maintained roads and more potholes. Local government in England faces a £5.8bn funding gap by 2020. The Government must recognise that councils cannot continue without sufficient resources that enable adequate funding for all areas of council services. The local road network is a council's most important asset yet they are forced to ransack their highways budget to fund other services.' The Road Surface Treatments Association (RSTA) pointed to the estimated £12bn repairs backlog on local authority roads and said that as the country's most important infrastructure asset, the road network, 'should have a realistic level of investment that is ring-fenced for spending on highways maintenance'.[62]

Removal of the Road Safety Grants in 2010

7.2.18   The specific road safety grant of £110 million per year was announced on 15 December 2005. It replaced the previous system of funding safety cameras through fine income. Some £71.5 million was allocated to authorities for their road safety needs using the existing Local Transport Plan (LTP) road safety formula using the number of casualties over the '94-'98 period. The remaining funding of approximately £25.5 million was allocated on the basis of the quality of road safety delivery and future plans. From 1 April 2007 safety cameras were integrated into the local transport plan system and authorities had greater flexibility to use this grant to implement any locally agreed mix of road safety measures. The Road Safety Partnership Grant (RSPG) scheme was launched in October 2006 to supplement the specific ring-fenced Road Safety Grant. A total of 27 schemes in 25 local authorities were approved for delivering projects between 2007 and 2009, and they received a total of £4.6 million for RSPG Round 1. The second round of the Road Safety Partnership Grant took place for two years starting in 2008/09. A total of 19 projects were funded in this second round of RSPG at a total cost approaching £2.2million. These grants ended in 2010.

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[62] Transport Network Newsletter 15 November 2017 (not as part of the RSMCR)

7.2.19   Education, training and publicity activity has suffered from the removal of the grants and local road safety officer capacity dipped by around 25% between 2010 and 2015.

7.2.20   A PACTS survey (2015) [63]of 34 English local authorities found that when it came to road safety:

    ○   85% thought the changes in resources and capacity since 2010 had had a negative impact;

    ○   76% thought the changes in national leadership and strategy were detrimental; and

    ○   60% rated progress in road safety overall as poor.

Table 8.   Reported examples of local authority budget cuts

Authority 1: Total safety engineering budget for 2017/18 is £594,000 down from £1.5m in 2010. Loss of Road Safety Grant has led to staff cuts and the safety engineering team comprises 3 staff compared with 8 in 2010. Staffing of road safety education/safe routes to school has reduced by 70 per cent. The loss of the Grant has had an impact on activity e.g. ETP, work-related road safety (all WRRS staff lost post 2010), and engineering.   The current total ETP budget is £600,000 and demonstrates concerted activity to engage with other agencies to supplement funding.

Authority 2: Received £28 million in the last LTP, £19 million of that was for highway maintenance – the integrated transport block grant has the remainder. A severe 50% cut. Road safety losing out to other priorities e.g. public transport, cycling etc. The speed awareness course levy managed by the road safety partnership is used to support additional road safety activities.

7.2.21   Local road safety representatives report[64] that most funding comprises DfT funds:

    ○   The Safer Roads Fund;

    ○   The Local Access Fund;

    ○   Local Transport Plans;

    ○   Sustainable Transport Grants; and

    ○   Bikeability.

7.2.22   Little or no money from health or any other sectors, including business is provided for road safety use in local authorities. Around 80% of local authority representatives reported that total funding has decreased over the last 5 years.

The Safer Roads Fund – local A roads

7.2.23   The Safer Roads Fund (2017) represents the first recent full engagement with local authorities on road safety since the removal of the Road safety Grant in 2010. The Fund totals £175 million between 2017/18 and 2020/21. The DfT has invited proposals from eligible local highway authorities to improve the safety of 50 specific sections of local A' roads, where the risk of fatal and serious collisions is highest, based on the analysis by the Road Safety Foundation. This is providing a major encouragement for local safety engineering work, not just in terms of the opportunities for specific investment but in

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[63] PACTS/ Road Safety Foundation (2015). Road Safety Since 2010, London
[64] See Appendix B, Funding & Resource Allocation: Local Government

increasing understanding and encouraging pro-active Safe System approaches in central government and locally. At the same time, compared with other spend, the Fund is allocating £25 million for the 2017/18 round representing just over 2% of the £1.2 billion allocated to the local roads funding budget. An evaluation of the Safer Roads Fund is underway. Initial responses made within this current review have been positive, though teething problems associated with a new process and on-going guidance development have been reported[65]. In view of its solid base, it is likely that a good case can be made for expansion and further roll out.

Funding for cycling and walking

DfT Cycling and Walking programmes

7.2.24 The DfT runs a number of programmes dedicated to cycling and walking, in addition to the larger Government local transport programmes that support walking and cycling.

- Bikeability: £50 million from 2016/17 to 2019/20 for cycle training;
- Cycle ambition cities: £191 million for 2013 to 2018 for cycle networks;
- Highways England designated fund for cycling, safety and integration: £100 million for cycling from 2015/16 to 2020/21 out of the ring-fenced fund of £250 million;
- Access fund: £80 million revenue from 2016/17 to 2020/21 in support of cycling and walking objectives.

7.2.25 In March 2018 the DfT also announced an investment of £100,000 each in 3 innovative cycle safety projects. In addition, there are a number of funding streams which are devolved to local bodies:

- Local growth fund: £12 billion from 2016/17 to 2020/21 for strategic economic growth plans of which £4billion has so far been allocated to transport projects including £600 million for cycling and walking.
- DfT highways maintenance block: £3.8 billion from 2016/17 to 2020/21, not ring-fenced and local highway authorities spend it according to their priorities.
- Integrated Transport Block: £1.3 billion from 2016/17 to 2020/21 of which around 11% is typically allocated to cycling and 4% to walking.

7.2.26 It is not possible to identify safety expenditure within these programmes separately from programmes to encourage cycling and walking, though the international literature indicates that provision of cycling facilities will generally have safety benefits. It was also noted in the review that while increasing cycling and walking creates challenges for road safety, making improvements in safety can also increase activity in these modes. Public Health England's public policy statements do not indicate that they have considered the safety implications of its objective to "support work across government on sustainable travel to promote increased levels of physical activity through walking and cycling" and the conclusion of this review is that they should do so.

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[65] See Appendix B, Funding & Resource Allocation: Central Government Departments/Agencies; Local Government; Advisory Groups, Associations and Charities

(b) Police enforcement funding

Traffic policing

7.2.27   Her Majesty's Chief Inspector of Constabulary reports that the police workforce has been reduced by 18% from 243,900 officers in 2010 to 200,600 in 2016. However, the reduction in traffic officer numbers has been particularly sharp, doubling that percentage cut. The National Police Chiefs' Council reports that since 2010, traffic officer numbers have reduced by around 36% from 5,500 to 3,500.[66] Policing levels have declined due to budget cuts, local decision-making and increasing use of automation. Currently, there is no separate traffic police function in some police forces although many forces have retained a discrete traffic policing role.

7.2.28   One local authority reports that despite offers to pay for police outputs as an overtime activity (a specific Council budget was available at one time for breath testing and other outputs) there is currently little take-up since police officers are overstretched and without appetite for additional duties.

7.2.29   There is wide acknowledgement by the police and others that the absence of a national road safety target is having an adverse effect on the amount of police enforcement activity[67]. As Lord Simon stated during his intervention in the Queen's Speech "At present there is a lack of investment and recognition of the role that roads policing plays in protecting our communities from harm."[68]

Diversionary courses

7.2.30   Following the ending of the Road Safety Grant system in 2010 a new arrangement for funding of speed camera activity was set up to reimburse police forces for the cost of running courses.[69] The fee paid by course participants covers the cost incurred by the training provider and £45 to the police for their costs of enforcement. As this is based on a national average it may be above or below the actual costs incurred. A third element of £4 is retained by UKROEd, the company responsible for administering the courses. Any surplus from this charge is given to the Road Safety Trust, a registered charity, to disburse for their charitable activity. Also see Road Safety Trust below.

Bi-lateral funding – DfT and Police

7.2.31   The DfT is working with the National Police Chiefs' Council to further increase enforcement against drug-drivers and provided £1,000,000 funding to police forces in England and Wales to help them build their drug-driving enforcement capability. This includes training more officers with drug recognition and impairment testing skills to enable more effective and targeted enforcement.

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[66] Her Majesty's Chief Inspector of Constabulary (2016). State of Policing – The Annual Assessment of Policing in England and Wales 2016

[67] See Appendix B, Funding & Resource Allocation: Local Government; Advisory Groups, Associations & Charities; and Emergency Services

[68] https://hansard.parliament.uk/lords/2017-06-27/debates/A4E7BDD8-94A4-4C34-A740-DE0C36289C01/Queen%E2%80%99SSpeech

[69] Diversionary courses e.g. speed awareness courses that are offered to drivers detected within the range of 10% plus 2 and 10% plus 9 in excess of the speed limit as an alternative to prosecution.

(c) Funding for research and development and knowledge transfer

7.2.32   The largest road safety research funding in the UK comes from the European Union's research programme, currently the Horizon 2020 Programme. Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years for a wide variety of topics. Examples of recent road safety projects in which the UK has participated are SafetyNet, SafetyCube, DaCoTa and SUPREME (Summary and publication of best practice in road safety in EU member states). Access to this funding after BREXIT is uncertain.

7.2.33   DfT safety research is currently focusing on autonomous vehicles and testing which has reduced the scope for a more strategic vehicle safety approach for the interim. The vehicle safety research budget is reported to be 50% of what it was 10 years ago. RULIS has a small safety research budget of around £2 million compared with £5 million before 2010. (See research and development and knowledge transfer section).

7.2.34   A range of charitable organisations such as the Road Safety Trust, Rees Jeffreys Road Fund, Road Safety Foundation and RAC Foundation play an important role in funding road safety research projects. The Road Safety Trust was set up to support improvements in road safety in the United Kingdom through contributions into research and development of "*practical measures and trial or demonstration projects, whether through education, engineering or enforcement, aimed to reduce death and injury to all road users.*" Grants of up to £100,000 are normally awarded. The trust also owns a wholly owned trading subsidiary, UKROEd. This company oversees the central administration, development, and quality of six diversionary courses currently offered by police officers as an educational alternative to prosecution. Any surplus from the company's activity is donated to the Trust in order for it to achieve its charitable objectives. Although this is welcome new funding for road safety research and practical interventions, income is not a foregone conclusion since levels of enforcement may change over time and levels of compliance may rise significantly, thereby reducing income to UKROEd.

7.2.35   In terms of knowledge transfer and Continuous Professional Development, there is little engagement with international bodies such as OECD due to time and money constraints.

(d) Financial incentives for road safety

7.2.36   The vehicle leasing sector believes that Treasury incentives to encourage attention to safety in vehicle purchasing would be helpful[70]. While large 'blue chip' companies are increasingly asking for Euro NCAP 5 *, incentives are needed for the rest of the market.

7.2.37   An additional incentive used to assist in work-related road safety is the provision of small grants to encourage employers to take up of the BSI ISO 39001 International Standards on Road Traffic Safety Management Systems. Such practice has been carried out in Japan and is identified good practice by the International Standards Organisation (2017).[71]

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[70] See Appendix B, Funding & Resource Allocation: Business and Industry
[71] International Standards Organisation (2017). Start Up Guide to ISO 39001, Geneva.

(e) Resource allocation processes

7.2.38　Preparing strong business cases for road safety investments is necessary to allow road safety to compete successfully with other funding demands.

7.2.39　DfT use recommended willingness to pay methods in assessing the value of a life in cost benefit analysis, and this is updated annually to reflect current prices. However, cost-benefit and cost-effectiveness analysis are not often used at local level to prioritise investment.

7.2.40　The relative benefits of investments are not always assessed on an equal footing. For example, the benefits of reducing travel time are often assessed over decades, as are safety benefits in major road scheme assessments, while safety investment benefits in maintenance programmes are often assessed over one to two years. The Safer Roads Programme departs from this tradition by looking at safety benefits over a 20-year period. In Highways England activity the safety benefits of investments are considered over 60 years for major schemes, but for small schemes and maintenance benefits are still measured over one to two years, although they trying to move away from traditional First Year Rate of Return assessments, which are also typically used by local highway authorities for local safety schemes.

7.2.41　The contribution of road crashes to increased travel time is not yet transparently identified in resource allocation processes although this is being worked on by the DfT. For example, there is currently a lack data on the costs of congestion attributable to collisions.

7.3   Summary of strengths and weaknesses

7.3.1   A summary of strengths and weaknesses for funding and resource allocation is provided in Table 9.

Table 9.   Strengths and weaknesses of Funding and Resource Allocation

Strengths	Weaknesses
• Britain's practice in past decades in securing sustainable funding and resource allocation for road safety investment has been recognised as global good practice.	• The societal value of preventing deaths and injuries far exceeds the small amounts currently being spent.
• Large potential has been identified for demonstrably effective activity for a substantial return on investment.	• Substantial reductions in highway engineering budgets are inhibiting the integration of road safety engineering into asset management.
• New safety investment in the strategic roads network is expected as the Safe System approach is increasingly implemented.	• Safety is not highlighted as a key, explicit objective in the Major Roads Network Investment consultation
• New funding for cycling safety is available.	• The removal of the Road Safety Grant and Partnership Grant has reduced local road safety capacity and activity.
• The Safer Roads Fund provides an important new funding mechanism to support priority local authority safety engineering activity.	• Road safety activity receives only limited funding in most local government budgets and is given insufficient priority.
• The societal value of preventing death and serious injury is updated regularly.	• Cost- benefit and cost-effectiveness analysis are not often used at local level to prioritise investment.
• Willingness-to-pay methods in the valuation of a statistical life (VOSL) are used in cost-benefit analysis at national level.	• Longer term benefits of safety investment (20 years) are not generally taken account of in small scheme and asset management activity.
	• The contribution of road crashes to increased travel time is not transparently identified in resource allocation processes.

7.4   Recommendations

7.4.1   This section provides the key recommendations for the IMF funding and resource classification.

Central government and its agencies

7.4.2   The DfT should:

○   Ensure that at least 10% of all road infrastructure investment is allocated to road safety intervention and to ensure embedding of the Safe System approach into the mainstream of highway engineering practice (in line with UNRSC's global road safety plan recommendation for the Decade of Action) for the Major Roads Network and other investments.

- Review the funding available to local authorities to ensure that highway maintenance and other safety critical activity is not cut in order to finance other services.
- Consider reintroducing the ring-fenced road safety grant for local authority road safety partnership activity in order to ensure that sufficient levels of multi-sectoral activity take place.
- Consider introducing a ring-fenced grant for the establishment of regional road safety partnerships.
- Provide financial resource for roll out of training to local authorities on Safe System engineering to advance knowledge transfer.
- Review the Safer Roads Fund once the evaluation is complete and consider if it should be extended.
- Provide local authorities with dedicated resource for demonstration projects of innovative Safe System treatments to advance local implementation.
- Ensure that the benefits for health of walking and cycling are supported by safety improvements by making funding available for safety measures as well as measures to increase activity.

7.4.3   The Home Office should:

- Promote investment in the enforcement of key road safety rules.
- Ensure that resources are available for type approval and procurement processes.

7.4.4   National Health England should:

- Review funding for ambulances and accident and emergency departments in hospitals to improve response times and trauma care.

7.4.5   Public Health England should:

- Review funding for road traffic injury prevention in its health improvement plans.

7.4.6   The Health and Safety Executive should:

- Promote BSI ISO 39001 standard on road safety management systems and consider providing small 'start up' incentives to assist organisations in the creation of a road safety management system as in identified good practice in Japan, published by the International Standards Organisation.

Local government

7.4.7   Local authorities should:

- Review the priority given to road safety in budget allocations.

Business and industry

7.4.8   Business and industry should:

- Look for ways to support national and local road safety activity through sponsorship opportunities.

8. PROMOTION

8.1 Classification

8.1.1 Promotion concerns the sustained communication of road safety as a core business for government and society and emphasises the shared societal responsibility for the delivery of the interventions to achieve results.

8.1.2 This function goes beyond the understanding of promotion as road safety advertising supporting particular interventions and addresses the overall level of ambition set by government and society for road safety performance. This means promoting the importance of road safety in general in public statements and in policy documents and the long-term and interim ambitions for better results.

8.2 Main findings

8.2.1 Britain has had a long tradition in promoting road safety as a shared responsibility across and between levels of government, supported by civil society and the business sector.

8.2.2 However, high-level promotion across national government of the shared responsibility for road safety or showing leadership by example has not been evident in recent national road safety activity or by Ministers. Public Health England, for example, has a key health promotion role with opportunities to regularly promote the need for road injury prevention as a public health issue.

8.2.3 Traffic police and victims' organisations note the lack of public profile and attention by Her Majesty's Chief Inspector of Constabulary given to road death and injury which are frequent occurrences compared with harm from rare high-profile crime such as homicide[72]. Despite the headline title: Promoting improvements in policing to make everyone safer, there was no mention at all of road traffic, traffic policing or road safety in the 2016 HM Chief Inspector's report.[73] In 2015, the only mention made was in relation to a joint report on the investigation and prosecution of fatal road traffic incidents.74 They believe a higher level of promotion is required and more consistency is needed in messages on road deaths and enforcement of traffic law.

8.2.4 Road traffic injury is a leading cause of death for school-age children and young adults. Its prevention and mitigation is promoted by road safety organisations, however, it does not seem to be promoted strongly by national organisations and agencies concerned with public health and child welfare.

8.2.5 Concern also exists as to how commonly policymakers and practitioners excuse themselves from failing to promote key road safety concerns or in carrying out key action on the grounds that they might upset the public by increasing enforcement or carrying out more effective speed management[75].

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[72] See Appendix B, Promotion: Advisory Groups, Associations and Charities; and Emergency Services

[73] Her Majesty's Chief Inspector of Constabulary (2016). State of Policing – The Annual Assessment of Policing in England and Wales 2016

[74] HMCPSI HMIC (2015). Joint Inspection of the investigation and prosecution of fatal road traffic incidents.

[75] See Appendix B, Promotion: Central Government Departments/Agencies; and Local Government

8.2.6   The Safe System approach, adopted in 2015, is rarely mentioned or promoted by central or local government and while well supported, the principles and how to implement them are is not well understood[76]. Promotion is carried out by the non-governmental sector, including the Parliamentary Advisory Council for Transport Safety, the Road Safety Foundation, other such organisations and by the research sector.

8.3   Summary of strengths and weaknesses

8.3.1   A summary of strengths and weaknesses for promotion is provided in Table 10.

Table 10. Strengths and weaknesses of Promotion

Strengths	*Weaknesses*
● The adopted Safe System approach provides an opportunity to refresh national road safety activity, as well as aligning with other key societal objectives. ● The Safe System approach is being strongly promoted in London, other cities and by Highways England. ● Advocacy outside government for strong activity on road safety is evident. ● Several organisations understand and promote the Safe System approach. ● A new road safety management system standard BS ISO 39001 (2012) adopts the Safe System goal and approach.	● Strong promotion of road safety at Ministerial and Director level in all key national agencies and many local agencies is not evident. ● Strong promotion of national and local good practice is not evident. ● The Safe System approach, though adopted, has yet to be launched at national level. ● Safe System is poorly understood and supporting management tools (e.g. BS ISO 39001 and safety rating tools) are not widely used yet in public and private sector policies.

8.4   Recommendations

8.4.1   This section provides the key recommendations for the IMF promotion.

Central government and its agencies

8.4.2   The DfT, alongside its governmental partners and agencies should:

○ Promote the shared responsibility for road safety at a high level to provide national leadership.
○ Promote the Safe System ambition for the ultimate elimination of deaths and serious injury as the new transport safety culture for professional road safety work in Britain.
○ Develop 'leading by example' strategies in line with this ambition.
○ Promote Towards Zero in public communication strategies.
○ Run an annual conference and an annual prize on implementing the Safe System approach and innovative measures to provide professional stimulus and encouragement.

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[76] See Appendix B, Promotion: Local Government

Local government

8.4.3   Local authorities should:

- Promote Safe System as the new transport safety culture in Britain to professionals and devise community Towards Zero promotion and engagement strategies.
- Promote the shared responsibility for road safety at a highest level to provide local and city leadership.

Professional sector and civil society

8.4.4   Professional sector and civil society should:

- Promote Safe System towards the ultimate prevention of death and serious injury as the new transport safety culture in Britain to government and professionals and develop a Towards Zero communication strategy for the wider public.
- Promote the shared responsibility for road safety at the highest level to provide professional leadership.
- Promote identified international and national good practice in Safe System implementation to government.
- Promote the take up of BS ISO 39001 and other strategic road safety management tools.

Business and industry

8.4.5   Business and industry should:

- Promote Safe System to and within organisations towards the ultimate prevention of death and serious injury as the new transport safety culture in Britain.
- Promote the shared responsibility for road safety by top management to provide organisational leadership.
- Promote the take up of BS ISO 39001 and other strategic road safety management tools.

9. MONITORING AND EVALUATION

9.1 Classification

9.1.1 Monitoring and evaluation concerns the systematic and ongoing measurement of road safety outputs and outcomes (intermediate and final) and the evaluation of interventions to achieve desired results.

9.1.2 This function involves periodic monitoring and evaluation of road safety goals, targets and programmes allows assessment of performance and identifies any necessary adjustments to be made. A range of monitoring and evaluation tools are available to assist in the objective assessment of the safety quality of the road network, vehicles, emergency medical system response and compliance with key safety rules. The organisation of independent crash investigation, inspection, audit and capacity review are also part of this function.

9.2 Main findings

Introduction

9.2.1 The collection, review, dissemination and sharing of data, as well as performance review, has traditionally been a national strength and consistent with international best practice. Adherence to "what is measured is managed" has underpinned national approach and performance. Between 2000 and 2010 regular annual monitoring reports of progress in delivering the 2010 target were published, and two comprehensive three-year reviews were carried out. The annual publication Road Casualties Great Britain is the primary data source based on the national Stats19 accident reporting system.

9.2.2 Current activity in monitoring and evaluation has its strengths and weaknesses and is shaped by the recent national context for road safety – notably the lack of a safety performance framework of targets and indicators, budget cuts and the adoption of the Safe System approach. Here, the focus on the prevention and reduction of deaths and serious injuries and supporting measurable indicators for related system-wide activity and performance present new monitoring and evaluation needs.

9.2.3 Monitoring and evaluation is a core function of lead agency activity and requires appropriate capacity and resource. While the capacity of the Statistics Travel and Safety Division of the DfT was reported not to have changed in size, staff reported that its activity is largely reactive. The review team believes that some further development in capacity would be needed to fulfil key national monitoring and evaluation development and statistical oversight related to the implementation of Safe System. This includes review of data and survey needs as well as providing a home for central storage of all relevant statistical data relating to Safe System implementation. Its main role is the production of the national database of annual statistics on road accidents.

Monitoring of final outcomes – deaths and serious injuries

9.2.4 A planned review of the national road crash injury reporting system is expected in 2018. Stakeholders believe that this is urgently required, the last having been carried out around eight years ago and with unprecedented changes in context. These include the need for

the adoption of CRASH as the universal crash-reporting system, the need for additional reporting to a MAIS 3 or above internationally agreed definition of serious injury, and the need to improve the accuracy of journey purpose reporting[77].

9.2.5 There are also several data needs for any active travel policy but which are not yet collected within Stats 19. These include pedestrian falls on the pavement (which are at least comparable to numbers being fatally and serious injured on the highway); improved reporting of cycle only collisions and multiple cycle collisions off the highway.

9.2.6 Currently, there are several reporting systems in use of varying quality by police forces in Britain – CRASH, NICHE and COPA (Met Police). A commonly held view amongst road safety professionals is the superiority of the CRASH system (which is used by approximately half of forces) and the need for adoption of this system by all forces[78]. A new, much improved version of CRASH, CRASH7, which includes an application suitable for any police mobile device, is expected in summer 2018 . This new system would make increase the efficiency and accuracy of reporting collisions, reduce double keying; provide live time access to statistical data to highway authorities and cost-savings for both police and local authorities. DfT is working with the Home Office to take over the management of and facilitate the take up of CRASH by all forces without cost.

9.2.7 The under-reporting of road crash injury is a phenomenon experienced even in better performing countries. Periodic data linkage between accident and emergency attendance data on road crash casualties and the national road crash data is required to ascertain under-reporting levels. The last linkage exercise was carried out in 2008 and an update is now needed.

Monitoring of intermediate outcomes – indicators related to deaths and serious injuries

9.2.8 Indicators related to deaths and serious injuries are safety performance indicators which, using available tools and protocols, measure the safety quality of the road network (e.g. measuring by IRAP star ratings), the vehicle fleet (e.g. measuring by EURO NCAP star ratings), emergency medical response and compliance with key road safety rules (speed limits and average speed on different road types, helmet use, seat belt use in all seating positions, driving unimpaired by alcohol and other drugs and in-car telephone use while driving). These form the backbone of a results-focused Safe System approach.

9.2.9 Safety professionals, nationally and internationally (e.g. OECD expert groups, World Road Association, WHO) believe there is over-reliance on national data on deaths and serious injuries for understanding crashes and outcomes, and that the collection and targeting of intermediate outcomes allows closer safety management[79]. At national level some such data is collected periodically, but neither comprehensively nor sufficiently regularly, nor brought together to assist policymaking systematically. Further information of what is available is provided in the Results section of this review.

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[77] See Appendix B, Monitoring and Evaluation: Academic Institutions
[78] See Appendix B, Monitoring and Evaluation: Central Government Departments/Agencies; and Advisory Groups, Associations and Charities
[79] See Appendix B, Monitoring and Evaluation: Advisory Groups, Associations and Charities; Business and Industry and Academic Institutions

9.2.10 Highways England are working with some indicators (e.g. safety ratings of the road network) and Transport for London is developing specific safety performance indicators to inform their new road strategy. At local level, resource and lack of targeting of desired performance mean that road safety activity is not well monitored. There is a lack of routine monitoring of key safety problems e.g. average speeds and drink-driving.

Public opinion survey of attitudes to road safety and intervention

9.2.11 Over many years, public opinion surveys of attitudes to road safety and intervention have been carried out and published regularly the DfT which has served a useful purpose in supporting the case for necessary intervention to reduce death and serious injury. Whereas various organisations carry out surveys on specific interventions, not systematic opinion tracking appears to be carried out at national level.

Evaluation of effectiveness of programme and interventions

9.2.12 The review has found wide acknowledgement that the DfT is historically and generally assiduous in its evaluation of new interventions and programmes.

9.2.13 However, several concerns were expressed during this review. The first involves the lack of systematic evaluation of the safety of new vehicle safety technologies – a key areas of activity concerned with the prevention and reduction of death and serious injury. Secondly, a 'silo' and inward-looking approach within organisations at local and national levels to successful intervention being carried out in different sectors and internationally. Finally, there were some concerns that while evaluation is carried out, too little emerges in terms of new policy development. Often, research and evidence based recommendations for intervention successfully carried out elsewhere are not followed through[80].

Collision investigation

9.2.14 Since the late 1960 investigation of all fatal road collisions is carried out by the police across the UK. Recent reviews of police crash investigation include one conducted jointly in 2015 by HM Chief Inspector of Constabulary (HMCI) and the HM Chief Inspector of the Crown Prosecution Service (HMPCI) which found that the investigation by police staff of fatal road traffic incidents was professional and thorough. Despite variations in organisational structure and staffing complements in roads policing departments, standards of investigation and evidence gathering were satisfactory. Recommendations were made aimed at improving and standardising the training of all road death investigation officers and especially senior investigating officers and family liaison officers; recognising and supporting the family liaison officer role; and reassuring both victims' families and the public that a road death investigation is not treated as in any way less important than any other homicide. [81]

9.2.15 A follow up review 2017 by a road crash victims' organisation expressed concerns that cuts in police budgets and numbers have fallen disproportionately on traffic police and

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[80] See Appendix B, Monitoring and Evaluation: Advisory Groups, Associations and Charities; and Academic Institutions

[81] HMPCI and HMIC (2015) Joint inspection of the investigation and prosecution of fatal road traffic incidents, London, HMSO.

collision investigation has suffered. Many of the advances in guidance and training produced by the Association of Chief Police Officers that had occurred in the first decade of this century have been reversed. A range of recommendations are made including updating of guidance to reflect best practice; more active oversight by the HMIC; and higher promotion by DfT of good practice.[82]

9.2.16 Britain has also had a long tradition in road crash investigation carried out by universities and institutes with support from central government and industry funding. This has not attracted the financial or human resource or public profile when compared with the more formal investigative work of other transport modes, which is of concern to the road safety profession[83]. There is additional concern that recently the sample sizes of downsized RAID crash investigations are too small to generate much useable information[84]. Inspired by a report from the Transport Safety Commission[85], a national professional debate has commenced about how road collision investigation can be expanded. The view expressed by collision investigation experts is that all road fatalities could be investigated using a Safe System approach. This would involve using an independent expert assessment of every police investigation which, together with Coroners data provides much other useful data and allows comprehensive and themed analysis. A recent national meeting convened by PACTS and the DfT explored a variety of options and achieved some consensus about the usefulness of possible pilots.

9.3 Summary of strengths and weaknesses

9.3.1 A summary of strengths and weaknesses for monitoring and evaluation is provided in Table 11.

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[82] RoadPeace (2017): Road death investigation: overlooked and underfunded, London.
[83] See Appendix B, Monitoring and Evaluation: Advisory Groups, Associations and Charities
[84] See Appendix B, Monitoring and Evaluation: Academic Institutions
[85] Transport Safety Commission (2015) UK Transport Safety: Who is responsible? PACTS, London.

Table 11. Strengths and weaknesses of Monitoring and Evaluation

Strengths	Weaknesses
• A wide range of databases is available in support of monitoring and evaluation. • Efforts are being made to improve the quality and or efficiency of key data systems. A review of STATS 19 data is planned. A new version of CRASH – CRASH7 is expected in Summer, 2018. • Highways England, Transport for London and others are starting to look at safety performance indicators in support of goals, targets and Safe System implementation. • Independent review of the road safety management system is carried out in the form of a Road Safety Management Capacity Review. • Some data is available in support of a Safe System approach, e.g. iRAP safety ratings of the strategic and main road network; Euro NCAP data. • Evaluation of programmes and interventions are carried out. • A national discussion is taking place on how road collision investigation can be enhanced.	• The CRASH system of collision reporting is not universally adopted. • A review of STATS 19 is long overdue. • No national, systematic compilation, storage, and analysis of the range of data needed to inform road safety policy and Safe System is carried out. • Annual monitoring of the safety quality of roads and vehicles, emergency medical response and key safety behaviours linked to the prevention and reduction of death and serious injury is not carried out. • There is a lack of integration of key final and intermediate outcome data to support the implementation of Safe System. • There is an absence of long-term outcome analysis in trauma registries. • The scope of current in-depth crash investigation to determine collision and injury causation is too limited (in terms of numbers investigated). • Periodic record linkage between transport and health data is needed to understand levels of under-reporting. • Public opinion survey of attitudes to road safety and intervention has ceased to be carried out regularly.

9.4 Recommendations

9.4.1   This section provides the key recommendations for the IMF monitoring and evaluation.

Central government and its agencies

9.4.2   The DfT should:

- Review data needs and tools for delivering the proposed national Safe System performance framework and embark upon new surveys and protocols wherever necessary.
- Carry out the anticipated review of STATS 19 data at the earliest opportunity.
- Establish the level of underreporting of serious injury collisions by linking STATS 19 and health data sets (the last linkage was in 2012).
- Review crash investigation to consider how the current system for investigation of fatal and serious crashes can be enhanced and set out options for such a system.

- Make greater national use of key Safe System monitoring tools, e.g. Euro NCAP (national fleet and government procurement) and iRAP safety ratings (for new major roads network).
- Develop the capacity of the DfT Statistics and Analysis Division to fulfil key national monitoring and evaluation requirements related to the implementation of Safe System. This includes a review of data and survey needs, as well as providing a home for central storage of all relevant statistical data.
- Alongside the Home Office, ensure that one national crash reporting system (CRASH) is used by all police forces. Ensure that national outcome data is available in a timely and user-friendly form to assist with performance monitoring.
- Commission regular monitoring reports to track progress in delivery of key road safety objectives.
- Undertake periodic peer reviews of national road safety management.

9.4.3   The Home Office, Her Majesty's Chief Inspector of Constabulary, and the National Chief Police Council should*:*

- Alongside the DfT, ensure that one national crash reporting system (CRASH) is used by all police forces.
- Monitor actual levels of enforcement of key road safety rules including those relating to excess alcohol and drugs, speeding, seat belt use, and in-car telephone use.

9.4.4   National Health England should:

- Monitor the role of trauma care and emergency medical response in reducing death and serious injury (see also post-crash care).

9.4.5   Public Health England should:

- Monitor public attitudes to road traffic injury prevention and priorities for road safety.

9.4.6   The Health and Safety Executive should:

- Report work-related road collisions to the Reporting of Injury, Diseases and Dangerous Occurrences Regulations (RIDDOR) database when someone has been injured on the roads whilst using the road for work or when someone driving or riding for work or commuting injures a member of the public.

Local government

9.4.7   Local authorities should:

- Measure key safety performance indicators including average speeds, excess speeds, seat belt use, mobile phone use, helmet use, Euro NCAP and iRAP ratings, and emergency medical response related to the number and risk of death and serious injuries.
- Use the key safety performance indicators to inform a local road safety performance framework with reference to the proposed national framework.
- Monitor outcomes of local road safety programmes in line with goals and targets to ensure that value for money is being obtained.

Professional sector and civil society

9.4.8   Professional sector and civil society should:

- Continue to assist in the development, review and promotion of new and existing monitoring and evaluation tools in support of Safe System.

Business and industry

9.4.9   Business and industry should:

- Set up a monitoring system to record road casualties whilst the road has been used for work or when someone driving or riding for work injures a member of the public.

10. RESEARCH AND DEVELOPMENT AND KNOWLEDGE TRANSFER

10.1 Classification

10.1.1 *Research and development and knowledge transfer* concerns the systematic and ongoing creation, codification, transfer and application of knowledge that contributes to the improved efficiency and effectiveness of the road safety management system to achieve results.

10.1.2 This function has guided the design and implementation of national strategies that have sustained reductions in road deaths and injuries, in the face of growing mobility and exposure to risk. It aims to produce a sustainable cadre of international, national and local professionals who can contribute to research-based approaches and knowledge to road safety policy, programmes and public debate.

10.2 Main findings

10.2.1 There is a very strong national tradition in supporting in research and development in system-wide road safety activity which, together with reference to the global road safety knowledge base, has underpinned successful road safety activity in Britain. A wealth of road safety research commissioned by DfT has been published over many years which has contributed to the evidence base for policy development and evaluation. The United Kingdom has played a major role in road safety research and development internationally. A notable example is the support for vehicle safety research which strongly contributed to the development of good practice crash tests and protocols informing vehicle safety legislation and consumer information. These have been implemented internationally and have resulted in very substantial reductions in deaths and serious injuries at home and abroad.

10.2.2 While no register of current road safety research capacity exists, the UK road safety research capacity is well developed and embraces a range of institutes and university departments and units, as well as charitable foundations which commission and promote research findings. The idea of establishing a periodically updated list of researchers and key fields to enable monitoring of current research capacity has been initiated by the Road Safety Trust and raised with other funders at the Highways England Behavioural Symposium held in March 2017. This would need to be government-led and multi-sectoral.

10.2.3 Most road safety research carried out by the national research sector is via the EU HORIZON programme. BREXIT is not yet affecting invitations to be part of EU-wide research proposals.

10.2.4 The stated emphasis in UK-funded safety-related research is on autonomous vehicles where Britain, alongside the United States and Japan, is playing a major development role. A large amount of resource is being allocated here. Around £80 million has been allocated to industry led commercialisation initiatives through Innovate UK calls. However, the sum available for safety research and standards development is very low.

10.2.5 Road safety aspects and the risks associated with the interaction of different levels of automation in on-road vehicles are not, in practice, at the forefront. Key issues relate to how such vehicles will be used and misused and concern that occupants will overly trust the system, crash protective elements etc. Vehicle safety experts also believe that the current research and analysis programme should be focussing on desired changes and the large opportunity provided for a range of vehicles safety measures within the General Safety Regulation and Pedestrian Safety Regulation due next year; driver distraction and fatigue, as more in-vehicle functions become available for driver use and also on better HMI interfaces.

10.2.6 The current DfT RULIS budget of £2 million funds a young driver project (Driver2020) being carried out by TRL and partners which is evaluating five non-legislative interventions (non-legislative):

1) Post-test. Voluntary agreement between parent and driver about when to drive, e.g. driving at night and length of driving experience. An on-line log book is kept.
2) Log-book learners. Pre-test. Hours of driving logged.
3) Telematics. Post-test. Black box fitment. Feedback being explored. Incentives etc.
4) Hazard perception training. Pre-test.
5) Educational intervention– the only one without previous evidence base.

10.2.7 Engagement with commissioners of research and the research community has identified some concerns about the current focus, approaches and processes or deviations from useful past practice, as well as several opportunities for enhancing current activity yet further. Funding for research has been reduced in recent years.

10.2.8 A key concern amongst some researchers is that road safety research is 'in recession' with transport and road safety no longer a priority in the UK and with very limited lead agency road safety research support and budget[86]. A frequently expressed concern is that priorities for road safety research are discussed internally within the DfT, rather than following regular consultation with road safety experts, and that the resulting focus may not align with perceived needs[87]. There is no longer a road safety research advisory group. For example, some concern is expressed that the current focus on future, post-2030 vehicles may be distracting attention away from vehicles safety needs over the next fifteen years.

10.2.9 Good practice organisation recognises that lead agency needs a range of technical inputs from external experts. In the past, DfT has set up a national research advisory group as well as technical groups who can contribute to road safety strategy development. Some terms of reference for a new group are set out in the box below.

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[86] See Appendix B, Research & Development: Central Government Departments/Agencies; Local Government; Business and Industry; and Academic Institutions
[87] See Appendix B, Research & Development: Central Government Departments/Agencies; and Academic Institutions

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Role of national road safety research advisory group

Function:
To provide expert advice to a new National Road Safety Working Group (see Coordination section) on:
- multi-sectoral road safety research needs in support of an evidence-based approach to the implementation of Safe System within national road safety strategy;
- dissemination of research findings to policymakers and professionals;
- cooperative approaches across central government and the devolved administrations;
- coordinated approaches amongst research funding bodies.

Chair and Membership:
To be chaired by DfT (as lead agency) head of road safety research. Membership by invitation of DfT to:
- interested government departments, agencies and units (e.g. Health, HE, Home Office, vehicles, roads);
- the devolved administrations;
- invited multi-sectoral and multi-disciplinary road safety research experts;
- key research funding bodies in public and private sectors.

10.2.10   In terms of research procurement, current frameworks (pre-March 2018) can prove to be time consuming for research commissioners (a lead in of six months can prove inconvenient for urgent cases) and problematic for universities which have to compete with the large capacity of a limited number of large consultancies in research bidding frameworks. This can create a barrier to widening the pool of researchers available for road safety research projects. Past efforts to build road safety research competence in, for example, university psychology departments, was fruitful in bringing new academics into the field. There is concern about the challenges for SMEs, the sustainability of road safety expert capacity in smaller academic units and that specialist activity is limited or excluded.

10.2.11   It is also evident that current research capacity is not yet sufficiently addressing Safe System needs and is not sufficiently aware of the opportunities it presents. For example, international experience demonstrates that Safe System demonstration projects provide a useful means of launching and further evaluating successful innovative treatments and engaging different sectors in new activity.   Demonstration projects have been an important part of the DfT road safety research programme in the past and could play a valuable role in developing Safe System measures. Current research spending, just one quarter of what it was a decade ago, is too small to support the implementation of a new policy such as Safe System and needs to be increased along with an increase in research management capacity. This needs to be supported by the external advice on road safety strategy development referred to in paragraph 10.2.9 above. The challenge of implementing Safe System across sectors is great and many recommendations for further work are made within this review.

10.2.12   While further research spending is required from all key agencies and organisations involved in supporting activity, a lead by example from the DfT is needed. DfT has been the key player with the largest budget and is able to target research at highest policy needs

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Knowledge transfer

10.2.13   Central government and its partners in Britain have a strong tradition in providing a framework for knowledge transfer. Good practice guidelines, demonstration projects, workshops and conferences are established national mechanisms for knowledge transfer. [88]. However, current knowledge transfer activity to allow Safe System implementation is insufficient.

10.2.14   The production of national guidance is highly important in a localism context, especially when local authorities are being encouraged to respond positively to the introduction of new national approaches such as Safe System

10.2.15   The DfT is seen as the home for national guidance and developing guidance on Safe System implementation. A start has been made to this process in the development of initial guidance in implementing a Safe System approach through proactive road safety engineering by the DfT, Road Safety Foundation, and RAC Foundation under the auspices of the Safer Roads Programme. At the same time, a great deal more needs to be done in terms of professional leadership. While different sectors are trying to 'do their bit', views were expressed that guidance from some professional organisations, including DfT, were needed, in order to effectively identify and promote best practice[89].

10.2.16   Activities in north western European countries and Australasia serve to illustrate some of the opportunities for Safe System guidance.

Table 12. Examples of Austroads Safe System guidance for Australasia (2016)

Safe System Assessment Framework, Research Report. AP-R509-16, Sydney.

Safe System Roads for Local Government Research Report. AP-R518-16, Sydney.

Asset Management within a Safe System, Publication No. AP-R442-13, Sydney.

Safe System in the Planning Process, Research Report. AP-R488-15, Sydney.

10.2.17   There is little evidence of engagement with international bodies such as OECD due to time and money constraints, and both central and local government struggle to attend international conferences and participate in international networks[90]. The training budgets at central and local government levels and funds to attend conferences and workshops have all but disappeared in recent years (some staff use annual holidays to attend). Together with staff reductions and staff turnover there are limits to continuing professional development in the road safety field.

10.2.18   Some current knowledge transfer activities include:

- The Road Safety Observatory is being further developed as well as links established to the European Road Safety Observatory;
- Safe System conferences are carried out by PACTS and Salford University;

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[88] See Appendix B, Research & Development: Local Government
[89] See Appendix B, Research & Development: Local Government; Advisory Groups, Associations and Charities; Business and Industry; and Academic Institutions
[90] See Appendix B, Research and Development: Central Government Departments/Agencies; Local Government; and Academic Institutions

- Safe System training has commenced in the academic/professional field;
- Knowledge transfer on websites e.g. BRAKE and PACTS; and
- The EU project SafetyCube has the potential to be a useful knowledge transfer tool.

10.3 Summary of strengths and weaknesses

10.3.1 A summary of strengths and weaknesses for research and knowledge transfer is provided in Table 13.

Table 13. Strengths and weaknesses of Research and Knowledge Transfer

Strengths	*Weaknesses*
• Strong capacity for road safety research exists in the United Kingdom. • Good practice guidelines, demonstration projects, workshops etc. are established national mechanisms for knowledge transfer. • Initial guidance on implementing a Safe System approach through proactive road safety engineering is being developed. • Safe System training has commenced in the academic sector.	• Wide concern exists about research funding post-BREXIT. • Current research capacity is not yet sufficiently addressing Safe System needs. • There is no national road safety research strategy. • There is no national road safety research advisory body to help identify priorities. • The HE SPATS research procurement process is creating unforeseen problems both for commissioners and research organisations. • The road safety profession is generally insufficiently aware of the state of the art in implementing Safe System. • Current knowledge transfer activity to allow Safe System implementation is insufficient. • Professional institutions and organisations in key sectors have been generally slow to engage in Safe System.

10.4 Recommendations

10.4.1 This section provides the key recommendations for the IMF research and development.

Central government and its agencies

10.4.2 The DfT should:

- Establish a national road safety research advisory group to provide independent expert advice on research programmes and methods, in line with identified good practice.
- Carry out a review to assess Safe System research needs with assistance from the new national road safety research advisory group.
- Develop and publish a national multi-sectoral road safety research strategy covering all Safe System elements to support and reinforce the shared responsibility for road safety results.

- Increase dedicated road safety research budget and programme management capacity to support the implementation of a Safe System approach and demonstration projects across the UK.
- Encourage partners to fund research in line with their core road safety responsibilities.
- Establish a register of road safety research competencies and programmes to assist understanding of national capacity and procurement processes.
- Promote coordination and knowledge sharing amongst devolved administrations and road safety research commissioning bodies via the national road safety research advisory group.
- Provide Safe System guidance particularly on how to integrate Safe System into the mainstream of highway engineering, e.g. planning and asset management.
- Facilitate study tours of Safe System implementation overseas.
- Continue to consider alternatives to, and request improvements in, the system for research procurement.
- Strengthen the capacity of policy leads and research managers to ensure that research results are incorporated in policy development and implementation.
- Continue building policy evaluation and monitoring into the research programme.

10.4.3   The Home Office should:

- Review research needs concerned with the enforcement of key road safety rules, including the carrying out of research into the perceived and actual risk of detection for key road safety rules.

10.4.4   The Department of Health, National Health England and Public Health England should:

- Review research needs concerned with the prevention and mitigation of death and serious injuries in road crashes. These include the potential to reduce the consequences of serious injury through improved access to the emergency medical system, better trauma care and the rehabilitation of crash victims; and the cost of long-term care of permanent impairment from road traffic injury.

10.4.5   The Health and Safety Executive should:

- Review research needs alongside the DfT in relation to improving work-related road safety.

Local government

10.4.6   Local authorities should:

- Seek the help of the research and professional sector in helping to ensure an evidence-based approach to road safety activity and to create strong business cases for investment.

Professional sector and civil society

10.4.7   Professional sector and civil society should:

- Review research capabilities for high quality road safety research.

- Contribute to the review of Safe System research needs.
- Cooperate with the establishment of a register of road safety research competencies and programmes.
- Encourage the setting up of a research advisory group and active participation in such a group by experts in the relevant disciplines.

Business and industry

10.4.8   Business and industry should:

- Collaborate in research projects wherever appropriate.

11. INTRODUCTION TO INTERVENTIONS

11.1 Introduction

11.1.1 Safe System interventions address all elements of the planning, design, operation and use of the road traffic system, and focus on the prevention and mitigation of death and serious injury (ITF 2016, World Road Association 2015). This focus shapes the selection of systematic interventions or measures accordingly. Intervention focuses on the implementation of evidence-based approaches to reduce exposure to the risk of death and serious injury; to prevent death and serious injury; to mitigate the severity of injury when a crash occurs, and to reduce the consequences of injury.

11.1.2 Safe System goes beyond traditional good practice with more focus than previously on improving the 'engineered' elements of the system to be compatible with the human element. While crashes will occur, the aim is for the total system to be designed to prevent and minimise death and serious injury. The rationale is to separate or safely integrate different modes of road use to achieve safe mobility. At its core, Safe System addresses the critical interfaces between the key design elements - allowable vehicle speeds, the available assistive and protective elements of roads and vehicles to prevent or mitigate severe crash injury outcomes and, if all else fails the efficiency of emergency medical response to reduce the consequences of injury.[91]

11.1.3 The core Safe System intervention elements used in this review are based on international guidance and national teaching, and also include specific areas covered by the British Road Safety Statement and of growing national interest, e.g. active travel and work-related road safety.

11.1.4 The intervention elements are:

- Safe Roads and Roadsides;
- Safe Speeds;
- Safe Vehicles;
- Safe Road Use;
- Post-Crash Care;
- Safe and Healthy Modes; and
- Safe Work Travel.

11.1.5 Chapters 11 to 18 outlined the findings of the RSMCR under each of the 7 intervention elements.

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[91] World Road Association (PIARC) (2015). Road Safety Manual https://roadsafety.piarc.org/en

12.   SAFE ROADS AND ROADSIDES

12.1   Classification

12.1.1   Safe Roads and Roadsides concerns the planning, design and operation of roads and roadsides. Research has shown that road-related factors are strongly linked to fatal and serious injury causation in road collisions. The aim is to support correct road use in the form of 'self-explaining' roads and 'forgiving roadsides' such that if crashes occur, they do not lead to death and serious injury.

12.2   Main Findings

Introduction

12.2.1   The Strategic Road Network (SRN) that is managed by Highways England comprises 4,400 miles, including motorways, which is 2% of the English road network by length, and carries one third of England's road traffic. Local authority roads comprise the remaining 98% of the road network (184,100 miles), ranging from country lanes and residential streets to major arterial routes. The busiest 4,400 miles of the local road network carry around 16% of all traffic. The proposed Major Roads Network that comprises 4% of England's total road network, carries 43% of all traffic and 16% of those killed or seriously injured nationally in road crashes. [92] Just under half of this network is managed by local authorities, the remainder by Highways England.

12.2.2   A Road Safety Foundation study indicates that the majority of road deaths since 2010 occurred on the network outside cities and towns; 50% of deaths took place on 10% of the network and the risk of death on A roads was around eight times greater than the risk on motorways. In terms of crash types on the A road and motorway network, run-off crashes with roadside objects are the leading cause of death, while side impacts at junctions are the leading cause of serious injury. Head-on crashes and impacts with pedestrians and cyclists hit at speed are the additional most important crash types in the network which involve death and serious injury. [93]

Safe System and Safe Roads and Roadsides

12.2.3   Implementing the Safe System approach has major implications for the safe planning, operation and use of the road network, even for countries such as the United Kingdom which are active in road safety.

12.2.4   Safe System engineering approaches on major roads involve:

- Establishing clear urban and rural road hierarchies which better match function to speed limit and layout and design;
- Separating oncoming traffic on high-volume, high-speed roads to prevent head-on collisions and provide crash protective roadsides to address run-off road collisions; and

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[92] Quarmby D and Carey P (2016). A Major Road Network for England, Rees Jeffreys Road Fund.
[93] Dawson J and Box E (2017). Supporting the Safer Roads Fund. Presentation to DfT Safer Roads Seminar.

- Ensuring safe speeds at intersections to reduce fatal and serious side collisions, and ensuring safe speeds on roads and streets with dangerous mixed use where separation of motor vehicles and vulnerable road users may be difficult.[94]

12.2.5   The Safe System approach focuses on the prevention and mitigation of death and serious injury, as opposed to other outcomes, and involves adopting predictive approaches to assess fatal and serious injury risk, rather than reactive approaches based on actual numbers of a variety of crash outcomes. A variety of Safe System intervention is practised daily by road engineers in Britain - aspects of speed management and the widespread implementation of roundabouts are notable examples. However, the Safe System approach challenges traditional approaches to road engineering planning, design and operation.[95]   Many parts of the network allow speeds which are in excess of the protective quality of roads and roadsides, most notably on single carriageway rural roads. Some key road engineering standards will now need to be updated to align with Safe System principles to take sufficient account of human tolerance to injury thresholds. These include design standards at junctions and the management of road use from low- to high-speed environments which expect vulnerable road users and users of smaller vehicles to compete successfully against faster, bigger vehicles.

Strategic Road Network and Major Road Network

Safe System assessment frameworks

12.2.6   Systematic risk rate mapping and star rating using objective data is carried out by International and European Road Assessment Programmes (iRAP, EuroRAP). Risk rate mapping assesses the risk of death and serious injury based on historical data. Some results from the latest annual Euro RAP risk mapping report by the Road Safety Foundation are presented in 'Risk Mapping of Major Roads'.

<div align="center">Table 14. Risk mapping of major roads</div>

EuroRAP risk mapping of major roads

- EuroRAP Risk Maps for Britain's major roads have been published by the Road Safety Foundation since 2002, and show the risk to a road user of being involved in a fatal or serious crash. These annual Risk Maps for Britain's motorways and A roads have become a key national road safety performance indicator revealing measurement of risk on roads across nations, regions and authorities. Half (51%) of British road deaths are concentrated on the mapped network which comprises 10% of the whole road network.
- The Road Safety Foundation's latest annual report (2017) found that fatal and serious injury crashes on the network reduced by just under 1% between 2010-12 and 2013-15. [96] The analysis reveals that crashes leading to serious injury increased on the EuroRAP network in 6 of the 10 British nations and regions. Improvements in Scotland and Yorkshire and the Humber masked a generally worsening safety performance, particularly in the South East and South West.
- The report showed that in 2013-15, 6% of vehicle travel on the EuroRAP network was on unacceptably higher risk roads (high or medium-high risk). 91% of motorway travel, but only

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[94] UNRSC (2012). Safe roads for development: a policy framework for safe infrastructure on major road transport networks, Geneva.

[95] Ciaburro T and Spencer J (2016) UK Road Safety - Seizing the Opportunities, Safer Roads, PACTS, London.

[96] Road Safety Foundation (2017). Cutting the Cost of Dangerous Roads, November 2017, Basingstoke.

> 3% of travel on single carriageways, was on roads rated low risk. Local authority roads are higher risk than trunk roads, with 13% of local authority travel on high or medium-high risk roads.
>
> ○ Other findings include:
> - The largest single cause of death on the network was run-off road crashes (30%)
> - The largest single cause of serious injury on the network was crashes at junctions (33%)
> - High risk single carriageway roads are 67 times more risky than low risk single carriageways
> - Single carriageway A roads are 7 times the risk of motorways and nearly 3 times the risk of
> - dual carriageway A roads.

12.2.7   An outline of iRAP star rating is given below. A rating has been undertaken for the SRN using the latest version of the iRAP model but has not been published, although prioritisation of treatments for sections of the network with high fatal and serious injury risk is reported to have commenced. An investment plan in support of the iRAP star rating target has not yet been published. An earlier iRAP star rating[97] of the SRN in 2010 indicated that:

○   50% of all motorways are rated 4* and 50% are 3*.

○   20% of dual carriageway A roads are rated 4* and 78% are 3*.

○   62% of single carriageway A roads are rated 2*, most of the rest are 3*.

12.2.8   A Safe System Assessment Framework has also been devised by Austroads for Australasia which, while a tool based on subjective judgement, is also proving to be a useful tool in new road projects. [98]

<div align="center">Table 15. Using star ratings to assess the safety quality of motorways and main roads</div>

○ Star ratings carried out by EuroRAP and iRAP assess the level of protection against the risk of death and serious injury in collisions for all main user groups afforded by the road environment. 50 attributes of the built-in infrastructure are coded at 100 metre intervals to predict risk of death and serious injury. In the latest protocol, each road is given a star rating from 1 to 5 stars. Recommended levels for different types of roads are 5* for nationally significant roads, 4* for national roads and 3* for busy regional roads.

○ Minimum star ratings for the infrastructure safety of major roads are increasingly being used as policy targets for both new and existing roads. Studies indicate large crash reduction and cost benefits when moving upwards from one star to another. The risk of death or serious injury per kilometre travelled on a 5* road is approximately 10% of the risk on a 1* road. [99] Barrier treatments, well-designed roundabouts and traffic calming treatments can produce reductions in serious and fatal injuries of 80% or more.[100] Crash costs can be halved with each star rating. The Road Safety Foundation, through its work with local authorities on new local A road schemes within the Safer Roads Fund programme, is conservatively forecasting

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[97]   Ratings based on V1 of the iRAP model. The latest, more sophisticated model now includes star ratings to 5* for different road users and a risk component.

[98]   Austroads (2016), Safe System Assessment Framework, AP-R509-16, Melbourne.

[99]   OECD/ITF (2016). Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System, Paris.

[100]   EuroRAP (2011) Crash rate -Star Rating comparisons: Review of available evidence, May 2011, iRAP/EuroRAP Working Paper 504.2, Basingstoke.

that for every £1 invested, there will typically be more than £3 in return from the recommended schemes.

12.2.9   The government has announced that it is considering the development of ring-fenced major roads funding in its consultation paper of 23rd December2017.[101] Several engineering professionals highlighted the desirability and opportunity for government to set a similar safety performance framework for a new Major Road Network, as for the SRN goal and targets set out below. This would include targeting iRAP star rating performance in support of a long-term goal and interim targets to prevent and mitigate death and serious injury and embedding the Safe System approach into the mainstream of its planning, design, operation and use.

12.2.10 Highways England is clearly providing safety engineering leadership in many aspects of Safe System, although some experts engaged with note that core attention to speed management is missing. As Highways England has outlined [102], implementing Safe System on the SRN means:

   O   Recognising that road elements have known effects on safety which, when measured, quantify the risk of death and serious injury on road sections and routes. Using Star Ratings will further strengthen proactive management and mitigation of risk before crashes and casualties occur;
   O   Systematic treatment of entire routes and networks is required;
   O   Reducing/controlling energy exchanged in crashes;
   O   Creating self-explaining and forgiving networks; and
   O   Acknowledging that road users make mistakes.

12.2.11 In line with good practice, the government has set a target hierarchy for Highways England comprising a long-term goal with a supportive interim target for reducing deaths and injuries and a supporting star rating target:

   O   By 2040, the number of deaths and serious injuries on the SRN should approach zero;
   O   By 2020, there should be a 40% reduction in deaths and serious injuries (2005–09 baseline); and
   O   By the end of 2020 > 90% of travel on the strategic road network should be on roads with an iRAP rating of 3* (or equivalent).

12.2.12 Amongst its activity, Highways England is ensuring that new designs for expressways (a new road type which is part-A road and part-motorway) are building in proactive elements to prevent death and serious injury.

City streets

12.2.13 Safe System leadership and activity in safety engineering is also evident at city levels in London and other cities. Transport for London (TfL) has introduced a 3 by 3 street classification which distinguishes between different types of street for planning purposes,

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[101] https://www.gov.uk/government/consultations/proposals-for-the-creation-of-a-major-road-network
[102] Highways England, Leonard R (2016) Star Ratings for the Strategic Road Network, PACTS Conference, November 2016, London.

as shown in Figure 3.[103] This is seen by transport experts as a highly useful city model for setting out a framework for safety intervention.[104] An urban star rating is under development by EuroRAP.
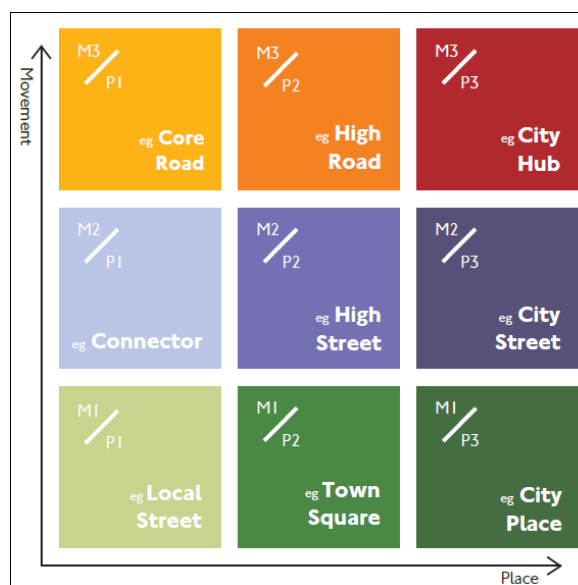
12.2.14 In support of the Mayor's Vision Zero goals and targets in his new transport strategy, London is working on key safety performance indicators to more closely manage its interventions. New attention in recent years has been given to cycling safety alongside its promotion as a healthy activity. Bristol provides a further example of a city adopting Safe System, where systematic speed management is being put in place to improve the safety of walking and cycling.

12.2.15 In general, however, Safe System is not well understood at local level. Prioritisation of road sections requiring treatment by fatal and serious risk is not generally evident in local network management. Where funding allows, local authorities are employing traditional approaches of treatments at cluster sites based on historical injury numbers[105]. However, the Safer Roads Fund, although challenging to its participants, is generally viewed as encouraging highly useful and complementary proactive Safe System implementation for 50 local major roads which present the highest risks of death and serious injury. The maximum potential bid is £200,000 per kilometre of route. Beyond that local authorities make a 10% contribution. Some local authorities generally report that this provides a sizeable incentive in monetary terms to implement effective activity, but a few local authorities reported that they are not incentivised by this because of maintenance costs[106]. Supported by the RAC Foundation's Pathfinder Project and Road Safety Foundation training, iRAP assessments and the development of safer road investment programmes are underway. It is expected that guidance for proactively addressing high-

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[103] http://content.tfl.gov.uk/street-types-matrix.pdf accessed 30.11.17
[104] Quarmby D and Carey P (2016). A Major Road Network for England, Rees Jeffreys Road Fund.
[105] See Appendix B, Safe Roads & Roadsides: Local Government
[106] See Appendix B, Safe Roads & Roadsides: Local Government

risk regional roads will be produced by DfT, the RAC Foundation and the Road Safety Foundation at the end of 2017.

12.2.16   The Road Safety Foundation reports that there are 36 persistently higher risk A roads that are not being addressed by the Safer Roads Fund, with a total length of 472km and associated economic loss of £195 million over 3 years. A further 6,111 kilometres on more than 550 sections of unacceptably high-risk roads identified by the latest risk mapping will need to be addressed by the Safer Roads Fund "in the drive to bring road deaths towards zero".[107]

12.2.17   A range of action has been identified in engagement with the road safety engineering profession and experts to launch Safe System implementation. These include:

- A review of the national road classification; a review of existing road infrastructure design standards to better reflect Safe System principles, philosophies and approach;
- The use of established tools such as iRAP star ratings as an important means of objective assessment of the safety quality of much of the road network;
- Demonstration projects of innovative treatments;
- Promotion of Safe System by key professional organisations;
- A programme of national guidance on Safe System implementation; and
- A programme of training in Safe System and ring-fenced funding.

12.3   Strengths and weakness

12.3.1   A summary of strengths and weaknesses for safe roads and roadsides is outlined in Table 16.

Table 16. Strengths and weaknesses of Safe Roads and Roadsides

Strengths	Weaknesses
• The adoption of Safe System principles has commenced for the SRN, led by Highways England.	• There is no national policy on safe roads and roadsides.
• New designs for expressways are building in proactive elements to prevent death and serious injury.	• Safe System is not yet part of the mainstream of national highway engineering practice.
• Measurable targets for the safety quality of the road network have been set for the SRN.	• There are no national measurable targets for the safety quality of all roads and roadsides.
• Mayoral leadership in several cities for Safe System urban road engineering to better protect vulnerable road users is evident.	• Road classification in Britain is not aligned with Safe System principles.
	• Engineering approaches remain generally reactive rather than proactive.
• The Safer Roads Fund is focusing attention and providing encouragement of proactive	• Speed management on motorways, main road networks and urban roads is

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[107] Road Safety Foundation (2017). Cutting the Cost of Dangerous Roads, November 2017, Basingstoke.

Safe System approaches on the 50 highest risk locally managed A roads.

- Partnership working by the DfT, the RAC Foundation and Road Safety Foundation to develop guidance on local road safety assessment.

inconsistent with a Safe System approach (see also Safe Speeds Section 13.2).

- Safety is not an explicit, key objective in plans for major road network infrastructure investment.

- Local activity of safe roads and roadsides has been substantially under-resourced compared with investment in the strategic road network (see Funding Section 7.2).

- No national guidance is available for implementing Safe System into the mainstream of engineering intervention.

12.4 Recommendations

12.4.1 This section provides the key recommendations for the intervention safe roads and roadsides.

Central government and its agencies

12.4.2 The DfT should:

- Review the national road hierarchy and speed limit classification for alignment with Safe System principles (see also DfT recommendations under legislation and safe speeds).
- Undertake a comprehensive review of urban and rural design standards to establish if these align with Safe System principles.
- Ensure that at least 10% of road infrastructure investment is devoted to road safety intervention in line with the UNRSC recommendation in the Global Road Safety Plan to prevent death and serious injury and to embed the Safe System approach into the mainstream of highway engineering activity (see also DfT recommendation under funding and resource allocation).
- Increase the amount of ring-fenced resource for the recently introduced Safer Roads Fund, initially to address high-volume/medium to high-risk sections and to allow national roll-out in the event of successful evaluation.
- Commission/undertake the development of national guidance on integrating the Safe System approach into the mainstream of highway engineering, including in road assessment, planning and asset management (see also DfT recommendation under research and development).
- Provide ring-fenced resource for roll out of training to local authorities on Safe System engineering.
- Provide ring-fenced resource for demonstration projects of innovative Safe System treatments.

12.4.3 Highways England should:

- Publish an annual star rating performance of the Strategic Road Network.

- Identify road sections for priority treatments on the Major Roads Network using iRAP star rating and risk mapping, in partnership with local authorities (see below).
- Extend the fledgling regional road safety partnerships for the Strategic Road Network to cover the Major Roads Network.
- Carry out a programme of in-service training in implementing the Safe System approach.
- Provide ring-fenced resource for demonstration projects of innovative Safe System treatments.

Local government

12.4.4 Local authorities should:

- Review the local and city road classification for alignment with Safe System principles.
- Adopt the Safe System approach into the mainstream of highway engineering activity.
- Ensure that the prevention of death and serious injury is an explicit objective in asset management activity (including maintenance).
- Target improvements in iRAP star rating on A roads.
- Identify road sections for priority treatments on the Major Roads Network using iRAP star rating and risk mapping.

Professional sector and civil society

12.4.5 Professional sector and civil society should:

- Promote the Safe System approach to road safety engineering practice through advocacy and training.

Business and industry

12.4.6 Business and industry should:

- Review its capacity to assist with the implementation of Safe System intervention (civil and highway engineering industry).
- Promote and provide demonstrably effective intervention in products and services for safe roads and roadsides and foster innovative Safe System treatments e.g. two plus one carriageway treatments.

13. SAFE SPEEDS

13.1 Classification

13.1.1 *Safe Speeds* concerns speed and its management as central to a Safe System approach. It cuts across most Safe System intervention categories. The aim of speed management on the network is not necessarily to universally lower speed limits but to match allowable speeds with road function, the safety quality of road design and layout, the protection afforded by vehicle design and the risk of death and serious injury. If crashes occur, they should not lead to death and serious injury.

13.2 Main Findings

Introduction

13.2.1 Speed is a central design parameter in implementing the Safe System approach. Here, the emphasis is on determining allowable speeds by the protective quality of roads, roadsides and vehicles and ensuring the compliance of drivers and riders. Safe Speeds is recognised by professionals working nationally as a key strategy for national attention.[108]

Role of speed in intervention choice

- Even small changes in mean speed affect fatal and serious crash risk:
  - An accepted principle is that every 1% increase in mean speed produces a 4% increase in fatal crash risk and a 3% increase in serious crash risk. Every 1% decrease in mean speed produces a 4% decrease in fatal crash risk and a 3% decrease in serious crash risk.[109]
  - Small changes in speed also influence the effectiveness or otherwise of road and vehicle interventions to prevent death and serious injury.
- Thresholds for death and serious injury risk in different crash scenarios and road use types are known:
  - In-depth Cooperative Crash Injury Study (CCIS) data from Great Britain for 2000–09 [110]indicates that the risk of pedestrian fatality is estimated to be approximately 1% at an impact speed of 20 mph, 7% at an impact speed of 30 mph, 31% at an impact speed of 40 mph.
  - For pedestrians hit by the fronts of cars, the risk of death rises rapidly (4.5 times from 30 mph to 40 mph). In car-to-car side impacts the fatality risk is 85% at 40 mph.
  - For belted occupants in the best designed cars (Euro NCAP 5*), the thresholds for severe and fatal injury have been identified as 45 mph (travel speed at impact) in head-on car-to-car crashes.[111]
  - In car-to-car side impacts the fatality risk is 85% at 40 mph according to CCIS data.

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[108] PACTS (2017) Speed summit report. http://www.pacts.org.uk/wp-content/uploads/sites/2/report-final-web.pdf accessed 30.11.17.

[109] Nilsson G. (2004). Traffic safety dimensions and the power model to describe the effect of speed on safety. Bulletin 221, Lund Institute of Technology, Lund.

[110] Richards D. C. (2010). Relationship between Speed and Risk of Fatal Injury: Pedestrians and Car Occupants, Transport Research Laboratory, RoadSafetyWebPublicationNo.16, DfT: London

[111] Tingvall C and Howarth N, 1999. Vision Zero – an ethical approach to safety and mobility. Paper presented to 6th ITE Conference Road Safety and Traffic Enforcement Beyond 2000,6-7 September,1999, Melbourne.

Allowable speeds and geometric road design

13.2.2   Representative bodies of road engineers and managers, as well as road safety researchers in Britain, acknowledge that the national road classification in Britain is not generally aligned to Safe System[112]. In Sweden and The Netherlands, early implementation of Safe System involved review of national road classifications to ensure alignment of road function, design and layout and speed limit. Much of the network in Britain posts speed limits and allows speeds which are in excess of the protective elements of roads and roadsides and vehicles against death and serious injury. One highway engineering organisation also noted that the variety of speed limits imposed by local authorities is leading to inconsistency of approach.

13.2.3   The lack of alignment with Safe System is evident particularly on the single carriageway rural network where 60 mph is the national speed limit for road use by low and high-speed vehicles, motorised and non-motorised vehicles, farm and leisure traffic. Here, inappropriate speed by users within the posted speed limit is typically cited as a regular contributory factor in road crashes, rather than inappropriate road design and speed limit which does not encourage appropriate speed.

13.2.4   Updates to DfT speed limit circulars for local authorities (2012)[113] is reported by at least one local authority to have led to some reductions from 60mph to 50 mph.

13.2.5   In urban areas, 20 mph speed limits are being increasingly implemented in city centres, residential areas and other areas with high volumes of pedestrians and cyclists[114]. The DfT has commissioned research, due to report in 2018, to assess the impact of 20mph speed limits which do not contain self-enforcing physical characteristics such as road humps or chicanes. TfL are trialling the effectiveness of such 20 mph limits, without traffic calming measures such as speed humps. According to 20's Plenty, all but two Inner London Boroughs and over half of the UK's 40 largest urban authorities now have a policy of setting 20mph as the default limit for all their streets.[115] The provision of supporting road humps and chicanes are notable examples of successful design in the research literature. Road safety managers and organisations have expressed concern about new government guidance on emissions which invites local authorities to consider removing such speed management devices to improve driving flow without reference to safety impact or the cost of removal[116] [117] [118]. PACTS has noted that while there may be a small number of specific locations where the removal of humps is justified due to poorer design, well designed and well-maintained humps and other devices can smooth traffic flows and keep speeds down, which should improve air quality.[119]

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[112] See Appendix B, Safe Speeds: Local Government; and Academic Institutions

[113] Setting local speed limits (Department for Transport circular 01/2013)

[114] See Appendix B, Safe Speeds: Local Government; and Advisory Groups, Associations and Charities

[115] http://www.roadsafetygb.org.uk/news/6097.html accessed 30.11.17.

[116] https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017

[117] http://www.independent.co.uk/news/uk/home-news/speed-bumps-disappear-uk-roads-air-pollution-government-plan-emissions-councils-remove-a7862811.html

[118] See Appendix B, Safe Speeds: Central Government Departments/Agencies; and Advisory Groups, Associations and Charities

[119] PACTS (2017). Press Release, Thursday 26th July 2017 http://www.pacts.org.uk/2017/07/pacts-reminds-government-not-to-overlook-safety-in-air-quality-moves/ accessed 30.11.17

13.2.6　Local authority speed management is typically based on casualty data rather than Safe System principles and measurement, e.g. using of iRAP rating or measurement of mean speed or excess speed[120].

In-vehicle driver assistance technologies - ISA

13.2.7　Britain has played a key role in the development of intelligent speed assistance (ISA) which can help drivers comply with speed limits. An option for an overridable system by the driver, currently one of the measures for possible mandatory requirement being examined within the EU's General Safety Regulation review, is highly favoured and promoted by UK vehicle safety research experts and safety organisations.[121]　In an overridable system, also known as Voluntary ISA, drivers can choose whether the system restricts their vehicle speed and/or the speed it is restricted to.　This system uses digital maps and speed sign recognition to detect the current speed limit and help prevent the driver from accelerating over it.　Over 90% of journey miles are on main roads in Britain which have known (mapped) speed limits.　Research in Britain indicates a potential 21% reduction in fatal crashes and a 14% reduction in serious crashes from the fitment of overridable ISA.[122]

13.2.8　Several manufacturers already sell cars in Europe with various implementations of ISA including Ford, Mercedes-Benz, Peugeot/Citroen, Renault and Volvo.　Euro NCAP, the consumer safety rating organisation, gives points for vehicles that include ISA.

13.2.9　Buses and HGVs are legally required to fit speed limiters (restricting them to speeds of 62mph and 56mph respectively). At city level, TfL are requiring ISA to be fitted in London buses.

13.2.10　Additional systems such as Automated Emergency Braking to slow vehicle speed, especially systems which can help reduce pedestrian death and serious injury, are also considered priorities by those involved in vehicle safety work.　An official DfT view on whether or not the UK would support mandatory requirement of such technologies was not available since the UK response to the European Commission's review of the General Safety Regulation and the Pedestrian Safety Regulation was under consideration.

Speed enforcement

13.2.11　While there has been a gradual increase in compliance with speed limits between 2011 and 2016, annual monitoring continues to indicate poor levels of compliance with speed limits across road types:[123]　Stakeholders perceive this as a key road safety problem.

- 46% of cars and 47% of light commercial vehicles exceeded the speed limit on motorways in 2016

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[120] See Appendix B, Safe Speeds: Local Government

[121] http://www.pacts.org.uk/wp-content/uploads/sites/2/Safer-Vehicles-2016-Summary-FINAL.pdf

[122] Carsten O (2012). Personal communication of additional results to study Lai F, Carsten O and Tate F. How much benefit does Intelligent Speed Adaptation deliver: An analysis of its potential contribution to safety and environment, Accident Analysis and Prevention 48 (2012) 63– 72.

[123] Department for Transport (2017) Vehicle Speed Compliance Statistics: GB 2016, HMSO, London.

- Single carriageway roads where the national speed limit applies (60 mph for cars) had the highest levels of speed limit compliance, with 8% of cars exceeding the speed limit
- On 30mph roads, 53% of cars, 56% of light commercial vehicles and 43% of articulated heavy goods vehicles exceeded the speed limit; and
- On 20mph roads with free-flow conditions (i.e. excluding roads with traffic calming measures - which may not be typical of most 20 mph roads), 81% of cars exceeded the speed limit.

13.2.12 According to STATS19 data, exceeding the speed limit features amongst the top five contributory factors for collisions involving motorcyclists of all engine sizes, young car drivers (17-24 years old) and the other vehicles involved in collisions with pedestrians.[124]

13.2.13 Speed cameras at fixed sites and mobile cameras have been used with substantial casualty reduction effects. More recently, average speed cameras along sections of road are being used increasingly and have been shown to achieve a large 36% reduction in fatal and serious collisions.[125] Several experts and practitioners noted the case for installing average speed cameras widely on the motorway and trunk road network as well as on sections of single carriageway rural roads.

13.2.14 Road safety managers report that camera partnerships are generally well run and making a good contribution, but there is some concern that they are seen as a cash cow by some political authorities and media. While many safety camera partnerships have withstood changes in funding mechanisms and levels, in others the level of activity is reported to have diminished. Recent information produced through Freedom of Information (FOI) request indicates that some 50% of fixed speed cameras are switched on.[126] No recent, published information is available on users' perception of the risk of detection for speeding offences. There is no monitoring of recent speed camera developments in terms of further roll out or withdrawal, although road managers suspect that the national picture is patch

13.2.15 A review of international best practice with national speed prosecution thresholds (which are considered by the review team and the NPCC traffic police lead [127]as being high compared with those for example in Victoria, Australia) to inform national policy has not been carried out[128].

13.2.16 Many professionals pointed to the need for combined publicity and enforcement to address speeding (see Safe Road Use).

Speed awareness courses

13.2.17 Speed awareness courses are available to drivers and riders in England, Wales and Northern Ireland as a very popular alternative to prosecution for certain speed offences that would otherwise incur three penalty points and a £100 fine. UKROEd, a subsidiary of

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[124] Reported Road Casualties Great Britain 2016

[125] Owen R, Ursachi G and Allsop RE (2016). Effectiveness of Average Speed Cameras in Great Britain, RAC Foundation, 2016, London.

[126] https://www.theguardian.com/uk-news/2017/nov/04/only-half-of-britains-fixed-speed-camera-are-active

[127] https://www.thetimes.co.uk/article/two-cars-a-minute-break-speed-limit-outside-west-mercia-police-chief-anthony-banghams-hq-v97st8bdv

[128] See Appendix B, Research and Development: Emergency Services

the Road Safety Trust charity, administers courses under the National Driver Offender Retraining Scheme (NDORS). Such courses are available for a typical cost of £85 to offenders who have not been convicted of any other speeding offence in the past three years and where driving is in the range of 10% plus 2mph and 10% plus 9mph of the limit. A number of private organisations (such as AA Drivetech, the TTC Group, DriveSafe) and public bodies (such as police forces and local authorities) deliver NDORS courses.

13.2.18   Some professionals see such courses as a useful educational measure which help to create more sympathetic attitudes to speed cameras and other interventions, whereas others are sceptical citing the gap in the evidence for the effectiveness of these programmes in reducing rates of reoffending. A current DfT study, due to report in 2018, is evaluating the effectiveness of these programmes in terms of reoffending. Some police representatives expressed concern that offenders may be eligible for repeat courses if speeding within different speed limits within the 3-year period, although monitoring by the Road Safety Trust reported to the review shows a low frequency of this[129]. In some media commentary, such courses are seen as generating income, used for road safety purposes, for the police who receive a flat fee to cover course provision expenses that may be higher or lower than the actual cost incurred by a specific force. UKROEd is currently reviewing the model for cost recovery.

13.2.19   Better speed management has not been cited to this review as an operational priority of lead agency, Highway Agency, police activity, or local authority activity[130]. Token support has been shown by all key sectors, apart from road safety organisations and urban Mayors, who are lending political leadership to speed management within their jurisdictions.

Insurance industry incentives

13.2.20   Several professionals noted that telematics-based insurance policies for targeted groups would make slowing down of interest to the driver, due to incentives, e.g. reduced premiums and cash back. While there is evidence of limited use of these to date, it was suggested that the practice deserved further encouragement and research[131].

13.3   Strengths and Weaknesses

13.3.1   A summary of strengths and weakness for safe speeds is provided in Table 17.

<div align="center">Table 17. Strengths and weaknesses of Safe Speeds</div>

Strengths	Weaknesses
• Britain has a well-established record of speed management using a variety of means.	• There are no specific actions in the British Road Safety Statement related to speed.
• Successful activity includes mobile, fixed site and average speed camera	• The road and speed limit classification system in Britain is not aligned to Safe System principles.

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[129] Impact Evaluation of the National Speed Awareness Course. May 2018. Ipsos Mori, George Barrett and the Institute for Transport Studies University of Leeds.
[130] See Appendix B, Safe Speeds: Central Government Departments/Agencies; Local Government; Emergency Services; and Academic Institutions
[131] See Appendix B, Safe Speeds: Business and Industry; and Academic Institutions

implementation and speed management in residential areas.

- Research in Britain has contributed to the development of promising in-vehicle technologies such as overridable intelligent speed adaptation.

- Updates to DfT speed limit circulars for local authorities is reported to have led to some reductions from 60mph to 50 mph.

- Speed compliance levels, average speeds and the number of speed offences are monitored and published annually by DfT.

- The potential and need to shift the culture on speed is recognised such that users perceive speeding as seriously as excess alcohol.

- Compliance with speed limits is not high in urban areas or on motorways.

- Speed limits are too high where roads, roadsides and vehicles offer inadequate protection, leading to inappropriate, allowable speeds.

- There is little leadership in government, its agencies and in the responsible sectors for better speed management.

- Local authority speed management is typically based on casualty data rather than Safe System principles and measurement.

- Reference to international best practice with national speed prosecution thresholds is not carried out.

13.4   Recommendations

13.4.1   This section provides the key recommendations for the intervention safe speeds.

Central government and its agencies

13.4.2   The DfT should:

- Acknowledge the central role of speed as a design parameter of the Safe System approach.
- Review national speed limits on roads in Britain as soon as possible.
- Establish better speed management as a national priority by targeting percentage increases in speed limit compliance and reductions in average speeds and work with partners to achieve this.
- Promote the benefits of average speed cameras, fixed site and mobile cameras to key agencies, highway authorities and the community.
- Re-establish national multimedia advertising on the adverse, daily consequences of speeding.
- Assist drivers in complying with speed limits by promoting mandatory Intelligent Speed Assistance (ISA), a voluntary overridable system, in EU Whole Vehicle Type Approval; and fast-track this nationally via government procurement policies and safe travel policies.

13.4.3   Highways England should:

- Acknowledge the central role of speed as a fundamental design parameter of the Safe System approach and establish its better management as a stated priority for its road network, through a wide-ranging review.
- Target percentage increases in compliance with speed limits, work with partners to ensure better compliance and review progress annually.

○ Roll out a programme of average speed cameras, fixed site and mobile cameras on motorways and A roads to improve compliance.

13.4.4 The Ministry of Justice should:

○ Carry out a review of international best practice with national speed prosecution thresholds to inform policy and operational practice.

13.4.5 The Home Office should:

○ Acknowledge that better speed enforcement is fundamental to its mission to keep citizens safe.
○ Work with partners (including DfT and the THINK! campaign, and local authorities as well as the police) to ensure better compliance with speed limits.
○ Promote the benefits of average speed cameras, fixed site and mobile cameras to key agencies, highway authorities and the community.

13.4.6 Her Majesty's Chief Inspector of Constabulary and Police and Crime Commissioners should:

○ Annually review progress in improving compliance with speed limits through police enforcement.

13.4.7 The Police should:

○ Ensure that better compliance with speed limits is amongst policing priorities.
○ Work with partners (including DfT, HE, and local authorities) to combine publicity and police enforcement of speed limits.

Local government

13.4.8 Local authorities should:

○ Acknowledge the central role of speed and its management to a Safe System approach and review priority interventions for local roads.
○ Target percentage increases in compliance with speed limits, work with partners to ensure better compliance and review progress annually.
○ Require Intelligent Speed Assistance (ISA) in the public procurement of transport services.

Professional sector and civil society

13.4.9 Professional sector and civil society should:

○ Acknowledge the central role of speed and its management to a Safe System approach.
○ Promote the need for better speed management in advocacy to government, highway authorities and police at national and local levels and to the community.
○ Include speed management in in-house management systems of organisations to improve road safety.

Business and industry

13.4.10   Business and industry should:

- Acknowledge the central role of speed and its management to a Safe System approach.
- Create incentives for better speed compliance in the insurance sector.
- Include speed management in the road safety management systems of organisations.
- Fit ISA as standard in all new cars, vans, heavy goods vehicles, buses and coaches.
- Introduce in-vehicle speed monitoring for light van and heavy vehicle commercial operations.
- Require ISA fitment in fleet purchasing.
- Promote and provide demonstrably effective intervention in products and services for Safe Speeds (for instance ISA, speed monitoring and other innovative products as and when they emerge).

14. SAFE VEHICLES

14.1 Classification

14.1.1 *Safe Vehicle*s concerns the planning, design, operation and use of vehicles to provide driver and rider assistance and crash protective designs to prevent and mitigate fatal and serious injuries and risks. The aim is to support correct in-vehicle use and to protect drivers and passengers as well as road users outside the vehicle such that if crashes occur, they do not do not lead to death and serious injury.

14.2 Main Findings

Introduction

14.2.1 It is widely acknowledged that improved vehicle safety performance is brought about by the combination of regulation and harmonised standards, consumer information, and public procurement policies to fast-track fitment of proven safety technologies and industry initiatives. Vehicle safety is recognised as being a key Safe System strategy and a demonstrably efficient and effective means of preventing and mitigating death and serious injury.

14.2.2 Vehicle safety interventions address crash avoidance, crash protection and mitigation in the event of a crash, and post-crash response. They involve vehicle measures to:

- Assist drivers and riders to comply with speed limits, seat belt and excess alcohol laws;
- Provide intelligent assistance to driving tasks to mitigate the risk of loss of control, and collision with other road users and the infrastructure;
- Reduce distraction from other in-car devices and services or external factors;
- Provide vital crash protection for a range of crash scenarios and age and gender characteristics for road users both inside and outside of the vehicle; and
- Assist in the notification of crashed to aid post-crash care.

14.2.3 Safe System approaches aim to integrate vehicle safety measures with other system measures, e.g. separated facilities in the road network, in-vehicle lane departure systems linked to road markings, crash-protective medians and roadsides and speed management to ensure tolerable kinetic energy in the event of a serious and fatal crash.

14.2.4 A UK conference on vehicle safety concluded that the single greatest contribution to the prevention of road death and serious injury in Britain has been vehicle safety.[132] While much has been achieved, UK vehicle safety research indicates that there is very large potential for savings in death and serious injuries through further measures.[133] [134] UK

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[132] http://www.pacts.org.uk/wp-content/uploads/sites/2/Safer-Vehicles-2016-Summary-FINAL.pdf accessed 30.11.17

[133] Hynd D, McCarthy M, Carroll JA, Seidl S, Edwards M, Visvikis C, Reed R and A Stevens (2014), *Benefit and Feasibility of a Range of New Technologies and Unregulated Measures in the fields of Vehicle* Occupant Safety and Protection of Vulnerable Road Users: Final Report, TRL, Crowthorne.

[134] Seidl M, Hynd D, McCarthy M, Martin P, Hunt H, Mohan S, Krishnamurthy V and S O'Connell: TRL Ltd. In depth cost-effectiveness analysis of the identified measures and features regarding the way forward for EU

vehicle safety experts believe that mandatory, financial incentive and consumer information routes, including industry own initiatives are inter-related, all needed, with each playing their part.

Global and EU vehicle safety standards

14.2.5   Most areas of vehicle safety requirements are established at international level, recognising the global nature of the car industry and the need for vehicle market variations to be minimised for cost reasons. Minimum vehicle performance standards are largely agreed within the UN ECE WP29 (World Forum for Harmonization of Vehicle Regulations) and currently are mandated by EU Regulations. The EU has exclusive competence within the Single Market for vehicle safety standards (Article 114 of the Treaty). EU Whole Vehicle Type Approval means that vehicles certified in one EU Member State are valid for sale in all other EU Member States. The European Parliament has played a key role through co-decision processes in ensuring that Treaty obligations to deliver a high level of protection in standards was met. The UK is an active contributor at the UN ECE WP29 and chairs its Technical Group for active safety requirements, and the ITS Automated-Driving group.

The UK contribution

14.2.6   At policymaking, professional and research levels, the UK has a made a strong contribution to vehicle safety and, thereby, to the large reductions in killed and seriously injured casualties, both nationally and throughout Europe, where a substantial 55% reduction in car occupant deaths has been achieved over the last 15 years.

14.2.7   During the 1990s, and with a new focus of the importance of safety within harmonisation processes, the UK played a major development role, both in research and policy terms. It contributed to the EU research and development funding and international collaboration in the 1980s and 1990s which led to the development of world-leading vehicle crash testing standards and protocols.   UK research led the development of the first biomechanically based European safety requirements for frontal and side impact crash tests and the first pedestrian safety requirements for cars. It played the major role in the development of the European New Car Assessment Programme (Euro NCAP) in conjunction with the Swedish government, the Fédération Internationale de l'Automobile (FIA) and the European consumer and road user organisations. This coordination facilitated a highly positive response from the European car industry in providing new safety designs and equipment for car occupant protection. Legislative and consumer information initiatives were rooted in British leadership in research, advocacy, policymaking and Parliamentary action.[135]

Current UK vehicle safety policies

14.2.8   The British Road Safety Statement outlines current policy priorities. These largely comprise promoting the development and adoption of connected and autonomous vehicle technologies in a way that maximises safety benefits and encouraging the faster

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vehicle safety. Final Report, European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Brussels.

[135] http://www.pacts.org.uk/wp-content/uploads/sites/2/Safer-Vehicles-2016-Summary-FINAL.pdf accessed on 30.11.17

uptake of safer vehicles via the promotion of clear consumer information and the procurement of safer vehicles. [136]

14.2.9   DfT acknowledges that the autonomous vehicle development priority is absorbing most current capacity in the International Vehicles Standards section. Nevertheless, it is clear that automation, at levels that exceed human capabilities, is not considered imminent by some stakeholders. There is no clear policy that addresses the introduction of lower level Advanced Driver Assistance Systems (ADAS) that in some cases have been shown to be very effective in preventing crashes. Internal consideration of the vehicle safety needs in the context of the EU reviews has received little attention to date. The current focus is 'different' from the strong focus on the prevention and mitigation of death and serious injury of previous years[137].

14.2.10   Safe System proposes a holistic view of casualty reduction such that vehicle measures are considered together with risks and other measures related to the road and road users. A strategy that fully integrates all three dimensions of safety is therefore essential. Interviewees reported there is only occasional coordination of approaches and vehicle safety is predominantly in a silo of its own.

14.2.11   Vehicle safety research experts across UK research institutions expressed concern that the UK's inputs on vehicle safety regulatory standards has lessened, focusing more on removing barriers to trade and market driven approaches including the market for the longer-term introduction of connected and autonomous vehicles (CAV) than regulating for vehicle safety.

14.2.12   In terms of the level of activity evident to date, either on the regulatory or consumer information front, vehicle safety measures for the next 15 to 20 years do not seem to be high on the list of current Departmental priorities which is of concern to safety experts and others[138].

Legislative standards

14.2.13   The GSR and PSR reviews: The EU is currently embarking on a review of key vehicle safety measures within the General Safety Regulation 661/2009 and the Pedestrian Safety Regulation 78/2009 of high importance for future road safety results. EU-funded research by TRL has underpinned the review and has assessed costs and benefits.[134] [135]

14.2.14   The European Commission is considering a priority list of regulation to promote casualty reduction with the following measures, considered by independent vehicle safety experts in this review to have the largest potential for casualty reduction:

    O   Intelligent Speed Assistance (ISA) (voluntary, overridable and mandatory systems);
    O   Pedestrian and cyclist AEB for all vehicles (M1, M2 M3 and N1, N2, N3)[139];

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[136] Department for Transport (2015) Working Together to Build a Safer Road System, British Road Safety Statement (2015), London.

[137] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; and Academic Institutions

[138] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; and Academic Institutions

[139] Category N1: Vehicles designed and constructed for the carriage of goods and having a maximum mass not exceeding 3,5 tonnes.
    Category N2: Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 3,5 tonnes but not exceeding 12 tonnes.

- ○ Drowsiness and attention detection (M1, M2 M3 and N1, N2, N3);
- ○ Distraction and attention detection (M1, M2 M3 and N1, N2, N3);
- ○ Improved car and light van (M1 and N1) crashworthiness for pedestrians (head form to windscreen testing);
- ○ Vehicle front design improvements – direct vision (M3 and N3);
- ○ AEB for cars and light vans (M1 and N1);
- ○ Lane keeping assist (M1 and N1);
- ○ Event data recorders;
- ○ Alcohol interlocks;
- ○ UNECE regulation No 135 – pole side impact; and
- ○ UNECE regulation No 137 – front impact full overlap.

14.2.15   Costs and benefits have been outlined and the Commission is currently carrying out an impact assessment.   Future amendments will be recommended to the European Parliament in early 2018.

14.2.16   UK vehicle safety experts consulted as part of the review believe that progress in these areas represents the most important contribution to road safety in Britain that is available at the current time.   Furthermore, they believe that there is a particular need for further development of pedestrian protection features on vehicles. The current protocols both of Euro NCAP and of the Pedestrian Safety Regulation do not provide adequate protection of pedestrians whose heads strike the vehicle A pillar and/or windscreen[140].   Further benefits provided for pedestrians might also benefit cyclists. Furthermore, they believe that the starting point for the mandating of intelligent speed adaptation is a voluntary overridable system.[141]

14.2.17   One expert commented further that at this time EU legislative crash tests for vehicle occupants are only based on human tolerance thresholds of 50th percentile males., while The DfT reports that the UN ECE has recently agreed new requirements to address the ageing population, children and women.

14.2.18   Technologies identified by TfL as having the greatest benefit to reducing casualties in London, based on trials and other information, were Intelligent Speed Assistance, Pedestrian Autonomous Emergency Braking, Pedestrian secondary safety features and Alcolocks. [141]

Category N3: Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 12 tonnes.

Category M1: Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat.

Category M2: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.

Category M3: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.

[140] See Appendix B, Safe Vehicles: Academic Institutions

[141] http://www.pacts.org.uk/wp-content/uploads/sites/2/Safer-Vehicles-2016-Summary-FINAL.pdf, accessed on 30.11.17.

14.2.19   The DfT has started to engage with the EU GEAR 2030 (High Level Group on the Competitiveness and Sustainable Growth of the Automotive Industry in the European Union).

European New Car Assessment Programme (Euro NCAP)

14.2.20   Euro NCAP was set up in 1997 and has 12 board members comprising 8 government members and 4 representatives of consumer and motoring organisations. Euro NCAP tests around 96% of all new sales in EU countries and has regularly produced roadmaps for its future activity, the latest being to 2025.

14.2.21   Higher levels of safety performance than required by legislation are promoted by the Euro NCAP through vehicle safety information that is presented to consumers. Euro NCAP star ratings are based on more demanding levels of performance in tests that underpin the legal requirements or performance requirements based on new tests that Euro NCAP partners have developed. Safety ratings take account of crash protection, crash avoidance technologies and various new technologies.

14.2.22   Research shows that a Euro NCAP 5* rated car has a 68% lower risk of fatal injury and a 23% lower rate of serious injury than 2 star rated cars.[142] Around 75% of these EU new vehicles are 5* rated. Euro NCAP informed the review that 72% of new cars sold for the nine months to September 2017 in the UK are Euro NCAP 5* rated.

14.2.23   Various vehicle safety experts saw Euro NCAP as the most significant influence on vehicle safety in Europe, but in a context which also involves a minimum level of regulation in areas where the car industry is less willing to act. Euro NCAP results show signs of recent progress on pedestrian protection on new cars, but only as legislative deadlines have grown closer[143].

14.2.24   The DfT has been a Member of the Euro NCAP board since it was established but it does not engage regularly in the technical working groups nor has made a similar financial contribution to other governmental partners in recent years. UK experts expressed concern about the lack of full UK and involvement and evidence provision. While the Board comprises only governmental and non-industry members in the interests of preserving an impartial approach, it was noted that Euro NCAP's testing programme is funded increasingly by industry's desire to have their vehicles Euro NCAP rated.

Public procurement and vehicle safety

14.2.25   New procurement and fleet measures are also foreseen in the British Road Safety Statement. The Government Buying Service is currently reviewing procurement policies and the DfT has included a new requirement for vehicle purchase to include a minimum mandatory Euro NCAP star rating and a minimum mandatory Euro NCAP pedestrian score at thresholds to be defined. A consultation on the star rating to be specified is expected in Summer 2018. The vehicle rental and leasing sector, vehicle safety experts and road safety organisations recommend that a Euro NCAP 5 star rating is specified in this policy

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[142] Kullgren A, Lie, A, Tingvall C (2010). Comparison between Euro NCAP test results and real-world crash data, Traffic Injury prevention, 2-1- Dec 11(6): 587-93)
[143] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; Advisory Groups, Associations and Charities; Business and Industry; and Academic Institutions

which would provide a significant reduction in fatal and crash injury risk amongst car occupants compared with lower star ratings.

14.2.26   Road safety organisations, the vehicle and rental and leasing sector and vehicle safety researchers are keen to see Government leading by example on vehicle safety management by setting out procurement requirements which include 5* Euro NCAP ratings. The rapid turnover of new vehicles into the used vehicle fleet to allow new safety technologies into the market assists road safety.

14.2.27   Countries such as Sweden and cities such as London have used public procurement to fast-track proven and available safety technologies either in advance of legislative lead-times or where legislative standardisation is not available. Sweden targets an increase in the proportion of new passenger cars with the highest Euro NCAP score to be 80% by 2020, noting that this contribution would represent the highest potential safety performance over and above any other indicator. Highways England plans to review and revise its hire car policy to ensure all hire vehicles meet a minimum 5* Euro NCAP rating as part of its new Health and Safety Strategy.

14.2.28   One vehicle rental and leasing industry organisation has set its own target that by 2020, 50% of all cars leased will be of Euro NCAP 5* standard. Around half of the fleet and road haulage organisations surveyed in this review require Euro NCAP 5* for all cars purchased or used by the company. Additionally, most reported that their clients did not set specific safety requirements in procuring services. The specification of Euro NCAP 5* was hardly evident amongst police forces and local authorities who took part in this review.

14.2.29   Public procurement policies have also been used to promote the safety of heavy vehicles. In response to the relatively large numbers of cyclists killed in collision with heavy vehicles, predominantly construction related, TfL has introduced series of requirements for contractors. These include specific vehicle based measures, restrictions on use of the vehicles and a roll-down of requirements to sub-contractors.

Financial incentives for safe vehicles

14.2.30   A few contributors to the review would like to see the Treasury providing incentives to encourage attention to safety in vehicle purchasing. While the big blue-chip companies are asking for Euro NCAP 5 *, incentives are needed for the rest of the market.

Industry initiatives

14.2.31   One example of industry initiative is provided by the motorcycle industry, which has been targeting the increased fitment of automatic headlights-on technology as well as anti-lock braking systems, which are now mandatory on all new motorcycles of 125cc and above.

14.2.32   Another example is provided by the insurance sector, which offer an incentive based initiative targeting young drivers through in-vehicle monitoring. This shows promise but requires transparent evaluation. Further examples include a reduction in premiums for cars equipped with Autonomous Emergency Braking (AEB).

Vehicle safety research and crash injury investigation

14.2.33   The UK's contribution to the evidence base for vehicle safety measures has been noted above. Previous crashworthiness standards have been heavily influenced by UK contributions to research, both alone and in collaboration with other EU Member States. Since 2010, the available funds have been reduced and the DfT research budget for vehicle safety is now 50% of that available in 2007. This represents an important restriction on UK capacity to support independent research on the development of future vehicle safety measures and ensure they are effective under UK conditions. In contrast, the UK is heavily investing in industry-led research into connected and automated vehicles (CAV) with around £200 million committed to establish CAV test beds and support research and development activities.

14.2.34   An exception is the continued DfT support to the Road Accident In-Depth Study (RAIDS), which gathers detailed and valuable information about the causes of serious and fatal collisions and the operation of vehicle safety systems. Nevertheless, as mentioned previously in Section 9.2, reduced funding has resulted in sample sizes that are too small to generate much useful information and these need to be increased[144]. Significant shortfall was also reported in UK evaluation studies of recent technologies and there is generally no information available as to the impact on serious and fatal injuries. These are not well covered by conventional methods based on RAIDS or STATS19 since the relevant vehicles are rare within the vehicle fleet and safety equipment is frequently optional. New methods are required to provide the feedback that future policies will need.

14.2.35   Several vehicle safety experts expressed the view that all road fatalities could be investigated by using 'an independent eye' on every police investigation which, together with coroners' data, would yield much useful data. The road collision investigation branch, the need for which has been promoted by the Transport Safety Commission and the subject of a recent DfT/PACTS workshop, was thought by several to be fine in principle. However, they noted that the previously mentioned route based on existing data and Safe System principles would generate a lot of useful information on the safety performance of vehicles as long as each report was analysed by independent experts[145].

14.2.36   The procurement of vehicle safety research is reported to have become a challenge since the introduction of the HE SPATS frameworks. The framework is structured around the greatest needs, which are predominantly for professional services related to highways construction and operation. Supply chains, led by large consultancies, have been established to provide all of the research and consultancy needs. These may be effective for the majority of research needs, however specialist groups with the skills for vehicle safety research and development perceive that they are not well recognised and often only able to make a marginal input to research programmes. Universities, in particular, are effectively excluded from leading these research programmes despite the available knowledge and skills base in specialist areas of vehicle safety. Finally, officials reported that considerable staff resources are needed to initiate any contract and up to six months may be needed for approval, even for urgent contracts[146].

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[144] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; and Academic Institutions

[145] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; Advisory Groups, Associations and Charities; and Academic Institutions

[146] See Appendix B, Research and Development: Central Government Departments/Agencies

Automation and vehicle safety

14.2.37   The British Road Safety Statement identifies driverless cars as having a huge potential to improve road safety. The promotion of automated vehicles is a key component of the country's Industrial Strategy and also future vehicle safety. Society of Automotive Engineers (SAE) Level 1 systems such as Advanced Emergency Braking or Electronic Stability Control are able to control the vehicle in a manner that humans are unable to and have been shown to produce substantial safety benefits and avoid crashes of all severities. However, there is no experience to date of SAE level 3 systems or above in open traffic.

14.2.38   While the long-term anticipation of perfect vehicles in a perfect traffic environment offers the aspirational possibility of zero fatalities, experts consider that there are several considerable obstacles to be overcome:

1. There are no existing regulatory vehicle safety standards that require a minimum level of performance of the automated systems, although one addressing automatic steering functions is under development. Without these standards, the systems are effectively barred from the market and potential safety benefits will not be realised.

2. There is a considerable concern that Level 3 systems may introduce new risks. These systems exhibit conditional autonomy and are autonomous in some situations, but human controlled in others. The transition between machine and human drivers requires the humans to be effectively monitoring the vehicle and driving situation and to be capable of taking control at short notice. This transfer of control does not occur with conventional vehicles and it introduces a new crash risk that is as yet unsolved.

3. There will be a long transition phase as more increasingly autonomous vehicles are introduced to the vehicle fleet. For many years highly automated and unautomated vehicles will be running together. Without large scale trials of autonomous systems, it is not known how this will affect overall traffic risks, for example a system that limits speed to the speed limit may give benefits once a threshold penetration has been reached. On the other hand, pedestrians and other vulnerable road users may have expectations of vehicle functionality that are not there and may take new risks.

4. The roadmap for automation may not be the same as one that applied the technologies for maximum road casualty reduction. For example, the recently revised European Road Transport Research Advisory Council (ERTRAC) roadmap highlights the future development of highway automation and parking support technologies.[147] While these may be progressive steps towards high automation they are not the technologies that would be selected if the objective were to reduce fatal and seriously injured casualties. One factor is the high proportion of vulnerable road users who are killed, sometimes without involving a car. The rental and insurance sectors would like to see the government setting out the transition process between the different levels of automation so that this can be better and more closely managed. A government White Paper could clearly set out the path.

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[147] http://www.ertrac.org/uploads/documentsearch/id48/ERTRAC_Automated_Driving_2017.pdf

5. Finally, humans are generally very good at driving despite risk-taking behaviours connected with youth, inexperience, speeding, alcohol and common error. In the UK, there are typically 256 million kilometres driven on average for every road traffic fatality and 1 million kilometres for every injury crash involving the general driving population. This level of safety is well beyond that of current vehicle systems, yet it needs to be surpassed if autonomous systems are to reduce casualties to the very low levels the public expects.

14.2.39 Given the constraints listed above, research experts are sceptical about the emphasis placed on the safety value of automation, as found in the British Road Safety Statement, at least within a 15-year timescale. Those consulted as part of the review were concerned that this focus was misplaced and with a missing focus on death and serious injury prevention. Furthermore, there appears to be no plan or roadmap that would enable DfT to steer the development of autonomous systems towards those that could give the greatest casualty reduction, particularly in the absence of research funding to establish the evidence base.

14.2.40 A clear finding from the review based on information received and views expressed in meetings with government officials and vehicle safety experts is that the current emphasis on creating a market for automated vehicles is unhelpfully dominating the policy and research agenda. It has diverted existing capacity for vehicle safety issues needed to address safety in the short to medium term.

14.2.41 In March 2018, the government announced a review of driving laws in preparation for self-driving vehicles[148].

BREXIT and international trade deals

14.2.42 There is concern amongst vehicle safety experts and road safety organisations consulted for this review about the arrangements post-BREXIT[149]. The transition from a transparent, EU type approval scheme for vehicle safety to a global decision-making forum presented by UN ECE is seen by some as high risk. In addition, the possibility of mutual recognition schemes for whole vehicle type approval in international trade deals is causing great concern. Mutual recognition of whole vehicle type approval based on regulation standards with the United States, for example, would mean imports of vehicles without pedestrian protection and inferior front and side impact protection.

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[148] https://www.gov.uk/government/news/government-to-review-driving-laws-in-preparation-for-self-driving-vehicles (accessed March 2018)
[149] See Appendix B, Safe Vehicles: Central Government Departments/Agencies; Business and Industry; and Academic Institutions

14.3 Strengths and Weaknesses

14.3.1 A summary of strengths and weaknesses for safe vehicles is provided in Table 18.

Table 18. Strengths and weaknesses of Safe Vehicles

Strengths	*Weaknesses*
● The UK has a made a strong contribution to international vehicle safety standards, Euro NCAP and the vehicle safety evidence-base.	● The current focus of international vehicle policy work emphasises market driven approaches and futurist intervention for connected and autonomous vehicles.
● The need for vehicle safety requirements in public procurement is adopted in national policy.	● At policy level, vehicle safety measures are not prioritised for their casualty reduction value.
● At city level, London leads in the inclusion of vehicle safety requirements in public procurement policies.	● Targets for improved vehicle safety are not set, as in some other countries.
● There is strong vehicle safety research capacity in Britain which needs to be maintained.	● Creating a market for automated vehicles is unhelpfully dominating the policy and research agenda reducing the capacity for attention to be given to other key issues.
● Insurance sector initiatives providing incentives via in-vehicle monitoring hold promise.	● Once strong, UK-supported vehicle safety research and crash injury investigation is too limited.
	● National guidance is lacking on Safe Vehicles within a Safe System approach.

14.4 Recommendations

14.4.1 This section provides the key recommendations for the intervention safe vehicles.

Central government and its agencies

14.4.2 The DfT should:

○ Promote vehicle safety technologies such as Intelligent Speed Adaptation, Autonomous Emergency Braking for Pedestrians and improvements in key crash tests for front, side and pedestrian protection, in regulation, consumer information and procurement policies.

○ Restore the previous priority given to vehicle safety policy and research in DfT vehicles activity and research procurement.

○ Embrace the opportunities presented by the current reviews of EU vehicle safety legislation to promote mandatory measures which save most lives and prevent serious injuries in road crashes.

○ Engage fully in Euro NCAP technical activities and provide equal financial resource to that provided by other governmental board partners.

○ Set and monitor national targets to improve vehicle safety quality to Euro NCAP 5* in the new car fleet.

○ In coordination with the Government Buying Service, announce measures to include Euro NCAP 5* rating (including 60% pass of pedestrian tests), motorcycle anti-lock braking systems, Intelligent Speed Assistance, Euro NCAP 5, pedestrian

advanced emergency braking systems and seat belt reminders in all seating positions in the public procurement of transport services across government.

- Strengthen national policy leadership on the operational safety of commercial vehicles and review the safety of commercial vehicles operating standards.
- Extend the RAIDS crash investigation programme so it is large enough to inform new policy and monitor new technologies in cars and review if further data requirements are needed in STATS 19.
- Review research procurement procedures and protocols to ensure that urgent research needs can be addressed by the appropriate expertise.
- Publish a road map for the safety management of increasing and mixed automation levels of connected and autonomous vehicles.
- Allay wide concerns about the safety quality of vehicle type approval post BREXIT and in international trade deals.

Local government

14.4.3   Local authorities should:

- Consider safe vehicle requirements such as Intelligent Speed Assistance, Euro NCAP 5*, anti-lock braking in motorcycles, pedestrian automotive emergency braking systems and seat belt reminders in all seating positions in the public procurement of transport services.

Professional sector and civil society

14.4.4   Professional sector and civil society should:

- Advocate more action on demonstrably effective vehicle safety measures and closely monitor international developments.

Business and industry

14.4.5   Business and industry should:

- Allow transparent evaluation of insurance sector in-vehicle initiatives to reduce young driver risk through telematic applications for wider roll-out, ongoing and as an extension to the Driver2020 research.
- Advance national fitment beyond legislative lead times of promising vehicle safety technologies.
  Promote and provide demonstrably effective intervention in products and services for safe vehicles.

15. SAFE ROAD USE

15.1 Classification

15.1.1 *Safe Road Use* concerns the standards and compliance regimes for the licensing and disqualification of driver and riders and the key safety rules, education and compliance regimes designed to prevent and mitigate fatal and serious injury risk. The aim is for road users to have the knowledge, capability, capacity and willingness to use roads and vehicles safely such that if crashes occur, they do not lead to death and serious injury.

15.2 Main Findings

Introduction

15.2.1 In a Safe System approach there is particular emphasis on creating a self-explaining and forgiving road environment, which creates the conditions for safe use by all by better accommodating human error and taking account of human tolerance to injury. There is recognition that human error will not be eliminated through safe use behavioural measures alone.

Human error in perspective

- We can occasionally make mistakes that have serious consequences. Most driving decisions are correct but sometimes decisions can be wrong, involve a mistake, an error of judgement or a missed signal.
- 30% of serious road crashes are caused by deliberate offences and risk-taking behaviour.
- The majority of serious road crashes result from simple errors of perception or judgement by otherwise compliant users.

Andrew Morris, Professor of Human Factors, Loughborough University Design School, Safe System Principles, The Safe System Approach: Managing for Better Road Safety Results Short Course.

15.2.2 At the same time, road users are expected to comply with road traffic law and regulations and share responsibility within Safe System, assisted by a national framework for standards of road use; education about key responsibilities, rights and rules for safe road use to improve knowledge and attitudes; and combined publicity and enforcement frameworks to assist compliance and improve safety behaviours.

Road user standards

15.2.3 The UK shares responsibility for driver licensing regimes with the European Union. Harmonised rules govern free movement and set broad conditions of entry (licensing) and exit (disqualification) of motorised vehicle use to driving allowing flexibility for national enhancements.

15.2.4 The general view amongst the road safety community in Britain is that the national licensing and testing framework, led by the DfT and its agencies (the Driver and Vehicle Standards Agency and Driver and Vehicle Licensing Agency) was in reasonable shape but could be improved. It was also observed that the UK's approach to driving standards is

quite liberal and mindful of minimising burdens on road user mobility, employment opportunities and lack of public transport etc. However, several key issues and concerns have been highlighted in engagement with organisations and safety experts as part of this review, which continue to feature in national debate. These included the need for changes to motorcycle licensing and the introduction of graduated driver licensing (GDL)[150].

Young driver/rider standards

15.2.5   Young adults, aged 16 (for riders and 17 for drivers) to 24 years bear the highest risk of fatal and serious injury, regardless of mode. The greatest risk is identified as within the first two years of driving and riding and within this period the first six months to a year of driving is the period of highest risk.[151] Some progress is reported. The Driver and Vehicle Standards Agency cited recent work by TRL which has shown that young driver crash rates in the first six months of driving fell amongst a cohort of drivers from 1 in 5 to 1 in 10. However, the researchers point out that the reason for the decreases might be related to improvements on vehicle safety or other factors and not necessarily to any improvement in the driving test. [152]

15.2.6   The following changes to the driving test took place on 4th December 2017:

  - the independent driving part will increase from 10 to 20 minutes;
  - most candidates will be asked to follow directions from a sat nav;
  - reversing manoeuvres will change; and
  - a vehicle safety question will have to be answered whilst driving.

15.2.7   While thought of as useful changes, some experts and practitioners from local authorities doubted whether these could be justified on safety grounds without supporting evidence in terms of their potential for death and serious injury prevention[153].

15.2.8   In addition, learner drivers will be allowed to take motorway driving lessons with an approved driving instructor in a car with dual controls from 2018.

15.2.9   As more than one professional consulted as part of the review observed, there has been a huge amount of focus on young driver and rider education and training with often very limited success. The Driver2020 research programme, which is generally considered useful by those professionals who commented upon it[154], is currently evaluating a variety of voluntary behavioural change interventions which include:

  - Parental engagement in managing post-test driving in specific risky situations;
  - Increasing the amount and breadth of pre-test on-road experience;
  - Utilising technology to manage driver behaviour post-test;
  - Training hazard perception skills (post-test); and

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[150] See Appendix B, Safe Road Use: Central Government Departments/Agencies; Advisory Groups, Associations and Charities; Business and Industry; and Academic Institutions

[151] Wells, P., Tong, S., Sexton, B., Grayson, G., Jones, E. (2008, May). Department for Transport, Road Safety Research Report No. 81.

[152] https://www.gov.uk/government/publications/evaluation-of-the-impact-of-the-new-driving-test

[153] See Appendix B, Safe Road Use: Central Government Departments/Agencies; and Local Government

[154] See Appendix B, Safe Road Use: Central Government Departments/Agencies; Business and Industry; and Academic Institutions

- ○ Educational intervention (the only one of these without any previous evidence base).

15.2.10   At the same time, independent road safety experts and the insurance sector consulted as part of the review are largely agreed that the licensing framework itself provides the obvious means of better managing initial exposure to risk through graduated licensing schemes. A research review by the country's leading behavioural scientists concluded that while provision of pre-driver education and training is widespread, evidence of effectiveness is absent. Conversely, evidence of the effectiveness of Graduated Driver Licensing (GDL) from countries where it has been implemented is strong and consistent. [155] This system includes measures such as specific restrictions on night time driving, the carrying of passengers, and lower blood-alcohol limits for newly qualified drivers. This review recommended that a British licensing system be based on a full GDL system. Practical problems such as the lack of alternative public transport in rural areas in overseas schemes are addressed by carefully prescribed exemptions in other jurisdictions implementing GDL. Northern Ireland have announced that they will shortly introduce a Graduated Driver Licensing scheme with specific provisions which, in representing typical conditions for the United Kingdom can serve as a highly useful pilot and deserving of fully evaluation.

15.2.11   An urgent safety management issue raised by policymakers and practitioners, and the subject of recent government consultation, relates to the lack of restriction on provisional motorcycle licences as long as Compulsory Basic Training is repeated every two years. Historically, the duration of licences was restricted in the interest of managing exposure to risk, but 1980s legislation was changed in the 1990s. Provisional motorcycle licence holders (like provisional car licence holders) fall outside of the New Driver Act which provides that full licence holders (motorcycle or car) accruing 6 or more penalty points within 2 years of passing their test lose their licence. Provisional licence holders still face the threat of prosecution but the automatic loss of licence does not apply until 12 points have accrued.   This also means that provisional motorcycle licence holders already at high risk due to youth, inexperience and use of high-risk vehicle will face a lower threat of licence loss than licensed users.

Older drivers

15.2.12   Older drivers have fewer casualties than many younger groups but have relatively high death rates per kilometre driven. Their fragility is an important factor. As people have healthier life styles and better medical treatment, they live longer and should be capable of driving safely for longer. The Road Safety Foundation has produced an evidence-based national strategy for older drivers with the aim of improving the framework, advice, self-help and technology available to support the fast-growing number of older drivers leading longer and healthier lives.[156] Many aspects of the strategy are covered in this review in terms of safe roads and roadsides, safe speeds and safe vehicles which better address common error and physical vulnerability. In relation to driving standards, the review

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[155] Kinnear N, Lloyd L, Helman S, Husband P, Scoons J, Jones S, Stradling S., McKenna F, and Broughton J (2013). *Novice drivers: evidence review and evaluation – pre-driver education and training, graduated driver licensing, and the New Drivers Act*. PPR673, TRL, Crowthorne.

[156] Road Safety Foundation (2012). Supporting Safe Driving Into Old Age - A National Older Driver Strategy, Basingstoke.

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recommended that the automatic requirement for drivers to notify the DVLA at age 70 of any medical condition that may affect safe driving should be raised to 75. In addition, the DVLA should require evidence of an eyesight test at age 75. The DVLA, insurers and others should encourage vision checks every two years, particularly from age 60.

HGV operator standards

15.2.13   The DfT has responsibility for national policy on vehicle roadworthiness, operator licensing and procurement schemes. This includes enforcement functions policy, foreign vehicles, driver hours, loading and maintenance. The DVSA has responsibility for the operation, enforcement and monitoring of vehicle and operator licensing including driving tests, roadside checks of commercial drivers and their vehicles, enforcement of drivers' hours regulations, and supporting the Traffic Commissioners to license and monitor freight vehicle operating companies. Requirements can also be set out at lower levels of government for standards of operation within a jurisdiction.

15.2.14   A variety of issues were raised during the review concerning operator licensing. Some of those consulted pointed to issues concerning operators from overseas in terms of emissions, tachographs and driving times, road weights, vehicle integrity and the ability to impound vehicles. Others celebrated the lead from authorities such as TfL in introducing various safety schemes and requirements. Others pointed to concerns about a devolved policymaking approach in this area from central government on heavy goods vehicle safety leading to different sets of requirements across the country which are difficult for operators to manage and that there would be benefits from a uniform national approach.

Community engagement on Safe System

15.2.15   The Safe System approach is based on the notion that instead of bearing the ultimate responsibility for road safety hazards, road users have rights and should be able to participate in road traffic without risking death and serious injury. Safe System also involves broad community engagement based on challenging public views about what are acceptable levels of safety. Towards Zero is often a more accessible vision for community engagement than Safe System which, in view of the technical complexities, is more usually directed at road safety professional activity.

Engaging the community in Victoria, Australia
Community engagement has been carried out in Victoria, Australia in support of its Towards Zero strategy. Phase 1 of the communication concept was centred on the theme that no one wants their family to become the victim of a road crash. This helped raise awareness of the fact that everyone who dies in a road crash is someone's relative and that there is no person who will not be missed. The second phase focused on what a safe road system can look like and how it can protect people when mistakes occur. See campaigns at:
https://www.tac.vic.gov.au/road-safety/tac-campaigns/tac-latest-campaigns/towards-zero

15.2.16   Towns and cities in the UK are starting to approach Safe System at professional level, but no example was evident of such explicit community engagement at national level on the Safe System goal towards zero deaths and serious injuries.

Key safety behaviour rules and their compliance

15.2.17   National and international organisations highlight (in published reports and via the consultation for this review) a number of key safety rules which are directly related to reducing the number and risk of death and serious injury. These include rules on speeding, impairment by alcohol and drugs, as well as fatigue (for which there is no reliable safety performance indicator, and which is not discussed here but in the section on Safe Work Travel), seat belt and child restraint use, helmet use and the use of distracting devices such as in-car telephones while driving.[157] [158]

15.2.18   Current compliance levels indicate that road users need more assistance to comply with important rules. Key measures include in-vehicle devices (See Safe Vehicles for driver assistance technologies), safety engineering and speed management e.g. self-enforcing 20 mph limits (See Safe Roads and Roadsides, Safe Speeds) and publicity and police enforcement. Research indicates that levels and certainty of enforcement actions are more important than the severity of penalties.[159]

15.2.19   While media campaigns can help gain public understanding and acceptance of engineering and enforcement measures, a recent review by one of the organisation contributing to the review notes that mass media campaign delivery alone shows little associated change in behaviour, and may even have a detrimental effect. On the other hand, a combination of publicity and high visibility enforcement that requires active coordination across sectors can have a very positive effect in preventing death and serious injury.

15.2.20   In this review, just over half of road safety officers who responded to a survey report that publicity and enforcement is fully or mostly coordinated for excess alcohol, seat belt and child restraint use, in-car telephone use by drivers and fatigue management. Just over a third reported that publicity and enforcement for such behaviours were partially coordinated. Road safety officers report that while the THINK! calendar is provided in advance, the lead time is often insufficient, with ministers only clearing messaging around two weeks before. The view was also expressed that while the National Police Chiefs' Council have a month by month calendar which they try and work with, there is generally little traction in terms of messaging and little opportunity for evaluation.

15.2.21   At the same time, there is great concern amongst all parts of the road safety community about current levels of police enforcement which, alongside education, training and publicity effort has been severely reduced[160]. As mentioned previously, the National Police Chiefs' Council reports that traffic officer numbers have reduced further by around 36% from 5,500 to 3,500 since 2010.

15.2.22   While speed enforcement has become mostly automated, other offences require a highly visible police presence to deter potential offending, which many professionals perceive

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[157] Peden M, Scurfield R, Sleet D, Mohan D, Hyder A, Jarawan E and Mathers C eds. (2004). World Report on Road Traffic Injury Prevention, World Health Organization and World Bank, Geneva.

[158] OECD/ITF (2016). Zero Road deaths and serious injuries:Leading the paradigm shift to a Safe System, Paris.

[159] Fosdick T, Campsall D, and Owen R, Road Safety Analysis Ltd (2016) UK Road Safety – Seizing the Opportunities, Safer Road Users, PACTS, London.

[160] See Appendix B, Safe Road Use: Central Government Departments/Agencies; Local Government; Advisory Groups, Associations and Charities; and Emergency Services

to be a thing of the past. It is difficult to ascertain how far this is explained by budget cuts and how far by operational decisions for policing, but it is likely to be a combination of both. Senior levels of the police service have expressed a strong desire for better focus on policing key road safety rules[161].

Speeding

15.2.23   See Safe Speeds section.

Impairment by alcohol, drugs and fatigue

Drinking and driving

15.2.24   Policymakers and practitioners in Britain have worked to achieve significant reductions in drinking and driving deaths over the last few decades, most notably following the introduction of the legal limit, improvements in enforcement tools and when publicity and enforcements have combined. Achieving a perceived high risk of being caught is a major factor in preventing drink-driving. Fear of disqualification from driving is also identified by research as being an important deterrent. [162] No research data in recent years is available to indicate levels of drivers' perception of the risk of detection.

15.2.25   The DfT reports that there has been no significant change in the number of excess alcohol deaths since 2010 whilst the number of serious injuries involving a drink driver increased by 9% in 2015. Excess alcohol deaths account for around 11% of all road deaths.

15.2.26   *General driving population*: The current blood alcohol limit of 80mg of alcohol to 100ml of blood is out of alignment with good practice. The World Health Organisation cites that a limit of 50 mg/100mg is the highest that can be supported by the evidence base for the general driving population.[163] The evidence case has been made often and by many organisations for lowering the blood alcohol limit from 80mg/100ml to 50mg/100ml and opinion surveys have been consistent in supporting a reduction.[164] Response to the North Review indicated that a lowering of the limits is very widely and strongly supported by road safety professionals, accompanied by high visibility roadside policing, while opposed by the alcohol industry.[165] A recent poll showed 77% of people favoured a 50mg/100ml limit. Lowering the limit in England and Wales to 50mg of alcohol per 100ml of blood could potentially avoid 25 deaths and 95 serious injury casualties each year.[166] The stated government view is that enforcing the current law is a better strategy than reducing the blood alcohol limit, although it will wait to see the impact of the introduction of a lower limit of 50mg/100ml in Scotland.

15.2.27   *Young and novice drivers* are at increased risk of having a road traffic crash when under the influence of alcohol compared to older and more experienced drivers. The World Health Organisation notes that the number of crashes involving young people can be

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[161] See Appendix B, Safe Road Use: Emergency Services

[162] Corbett, C. and Simon, F. 1992. Unlawful driving behavior: A criminological perspective'. Contractor Report 301. Crowthorne: TRL.

[163] Peden M, Scurfield R, Sleet D, Mohan D, Hyder A, Jarawan E and Mathers C eds. (2004). World Report on Road Traffic Injury Prevention, World Health Organization and World Bank, Geneva.

[164] Tunbridge R, Harrison K (2017) Fifty years of the breathalyser-where now for drink driving? PACTS, London.

[165] North, Sir Peter (2010). Report of the Review of Drink and Drug Driving Law, DfT, London.

[166]   Allsop R E (2015). Saving Lives by Lowering the Legal Drink-Drive Limit, University College London.

reduced by as much as 24% by laws that establish a lower blood alcohol concentration (20 mg/100ml) for young or novice drivers. Many jurisdictions have zero tolerance for young drivers.

15.2.28 In December 2016 the THINK! campaign aimed to deter men aged 17 to 34 from 'having a second drink'. While this was a research-based strategy, it was widely criticised by safety professionals for undermining the traditional, simple "Don't drink and drive" message and was seen as especially unhelpful by the authorities in Scotland where a lower limit applies.[164]

15.2.29 The British Road Safety Statement makes no proposals on levels of drink-drive enforcement. Home Office Figures indicate that the number of breath tests undertaken by the police has declined substantially in recent years. Around 600,000 breath tests are carried out each year by police forces in England and Wales. This increased to 815,000 in 2009 but fell to 520,000 by 2015 – the lowest total in the past 15 years. In 2016, the number of drivers stopped by the police in the summer drink driving campaign more than halved compared with 2013. The number of breath tests administered in Great Britain annually is far lower than in other European countries such as Sweden which conducts over three times as many tests for a population over five times smaller. France and Spain conduct eighteen and ten times as many breath tests respectively. [164]

15.2.30 Type approval for evidential roadside breath testing equipment to facilitate enforcement which was provided for by legislation in 2005 is long overdue and represents a major regulatory failure by the Home Office. The National Police Chiefs' Council would like to see mobile evidential breath testing instruments (MEBTI) available for the police in the UK.

15.2.31 The role of alcohol interlocks is discussed in Safe Vehicles. Alcohol interlocks require the driver to take a breath test before the vehicle will start and is used in rehabilitation programmes and increasingly overseas in public and commercial transport operations.

Drugs and driving

15.2.32 It is illegal to drive if impaired by drugs. New legislation on drugs and driving came into force in 2015 which makes it illegal to drive with a specified drug in the body above a specified limit, including legal and illegal drugs. The police can carry out a 'field impairment assessment' if they suspect drug use and can use a roadside drug kit to screen for cannabis and cocaine. The DfT has provided specific funding (£1,000,000) for drug drive enforcement by the police and plans to consult on a High-Risk Offenders scheme for drug-drivers.

Fatigue management

15.2.33 Drivers' hours are covered by EU legislation.

15.2.34 See Safe Work Travel.

Seat belt and child restraint use

15.2.35 According to the World Health Organisation, wearing a seat-belt can reduce fatalities among front-seat occupants by up to 50% and among rear-seat car occupants by up to

75%. Car seat use reduces the risk of death for infants (aged <1 year) by 71%; and for toddlers (aged 1–4 years) by 54% in passenger vehicles. Booster seat use reduces the risk of serious injury by 45% for children aged 4–8 years when compared with seat belt use alone.[167]

15.2.36   The next seat belt survey is expected to be published in Summer 2018. The last British seat belt use survey was carried out in 2014.[168] Seat belt wearing rates were found to be lower for passengers than for drivers. In England and Scotland, 97% of all front seat passengers and 91% of all rear seat passengers were observed using seat belts or child restraints compared with 98% for drivers. On the face of it, these wearing levels for car occupants seem high, but there is scope to reach possible 99% levels, as indicated by international research. Sweden, for example, with a 96% baseline in 2010 is targeting 99% use by 2020 with a potential number of 40 lives saved representing around 18% of the total targeted fatality reduction. Furthermore, crash injury research indicates that around 28% of fatally and seriously occupants do not wear seat belts at the time of the crash.[169] The effective role played by in-vehicle seat belt reminders in increasing seat belt use in the front and rear is covered in the Safe Vehicles section.

15.2.37   Data provided by the National Chief Police Chiefs Council indicates that the level of seat belt offences has reduced by 67% since 2010. Such a large reduction is not consistent with seat belt use trends over this period (front seat use was 95% in 2009 increasing to 97% in 2014 and rear seat use was 91% in 2014 compared with 89% in 2009) and reflects a substantial reduction in police enforcement activity.

Helmet use

15.2.38   The World Health Organisation states that the correct wearing of a quality-standard motorcycle helmet can reduce the risk of death by almost 40% and the risk of severe injury by over 70%. Motorcycle helmet use surveys are no longer carried out periodically. Levels of motorcycle and moped helmet use are expected to be high, but this needs to be surveyed. The increasing availability of low speed two-wheeled motorised vehicles for use on the road as well as farm vehicles which can achieve higher speeds than previously merit new and possibly regulatory attention. The SHARP motorcycle helmet consumer information programme run by the DfT is identified as international good practice and deserves national promotion and encouragement in safe travel policies and mechanisms for incentives. According to a recent, comprehensive meta-analysis of studies, helmets for cyclists can reduce serious and fatal head injury by around two thirds. (65% reduction in in death and a 69% reduction on serious head injury.)[170] Two out three permanent head

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[167] WHO (2016). Discussion paper on global road safety performance indicators, (August 2016), Geneva

[168] Department for Transport (2014). Seatbelt and mobile phone use surveys: 2014, London.

[169] Frampton, R.J., Lenard, J. The Potential for Further Development of Passive Safety. Annals of Advances in Automotive Medicine. 2009 Oct; 53: 51 - 60.

[170] Olivier J and P Creighton, 2016: Bicycle helmets ad helmet use: a systematic review and metanalysis: In International Journal of Epidemiology.

injuries could be avoided through their use.[171] In an in-depth Swedish study, 71 % did not use a helmet and of these 43 percent would have survived with it. [172]

15.2.39   While a sensitive issue amongst cyclists, concerned that having to wearing a helmet might discourage people from cycling, cycle helmet use is considered to be international good practice in implementing a Safe System approach in countries such as Sweden and the Australian States. High risks are associated with head injury, particularly to children and in some countries cycle helmet use is a mandatory requirement for use for children. The DfT does not carry out national surveys of use. There is no national consumer information cycle helmet scheme.

In-vehicle telephone use

15.2.40   Use of a mobile phone while driving is estimated to present the risk of crash involvement which is four times higher than for a driver who is not using a phone. This risk appears to be similar for both hand-held and hands-free phones since cognitive distraction that is an issue and not only the physical distraction associated with holding the phone. Research indicates that text messaging appears to have an even more severe impact on driving behaviour and crash risk. Studies show that in-car telephone conversations while driving can impair drivers more than listening to the radio or talking to passengers. Use of a mobile phone while driving is widespread amongst young novice drivers and adds to the problems experienced by this group who already have a higher crash risk.[173]

15.2.41   The last compliance surveys were carried out in 2014 and the results of new surveys are expected to be published in summer 2018. The proportion of car drivers observed using a hand-held mobile phone in England in 2014 (1.5%) was relatively unchanged from the 1.4%observed in 2009, when the previous survey was carried out. Against the background of diminished levels of traffic policing, concerns have been expressed about mobile phone enforcement which, unlike speed enforcement, needs to be undertaken by police officers on the road, rather than through automated means.

15.3   Equestrian Rider Safety

15.3.1   Concern was also expressed during the review about the need to improve the safety of horse riding. In 2016 STATS 19 data, 113 riders were reported to the police as injured on the road, 30 of them seriously. This is an increase of nearly 40% when compared with 2015. The majority of serious injuries are however, off road. In November 2010 the British Horse Society (BHS) introduced a new website through which horse riders and carriage drivers could report incidents and accidents. Since this date 2,510 incidents involving horses on the road have been reported to the BHS through their incident reporting system. 222 horses died at the scene, or as a result of their injuries, and 38 riders have died. Lower speed limits and speeds on rural roads where horse riding is common as well as improved visibility is recommended by the British Horse Society.

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[171] Rizzi, M, Stigson H, Krafft M. 2013). Cyclist injuries leading to permanent medical impairment in Sweden and the effect of bicycle helmets. Int. IRCOBI Conf. on the Biomechanics of Injury, 2013 Gothenburg, Sweden.

[172] Kullgren, A., M. Rizzi, H. Stigson, A. Ydenius and J. Strandroth. 2017. The potential of vehicle and road infrastructure interventions in fatal pedestrian and bicyclist accidents on Swedish rural roads –what can in-depth studies tell us? 25th ESV Conference, 2017 Detroit. Paper number 17-0284

[173] DaCoTA (2012) Car telephone use while driving, Deliverable 4.8b of the EC FP7 project DaCoTA

15.4　Strengths and Weaknesses

15.4.1　A summary of strengths and weaknesses for safe road use is provided in Table 19.

Table 19. Strengths and weaknesses of Safe Road Use

Strengths

- Britain has a generally comprehensive framework for driver licensing and testing.

- Britain has a long tradition in coordinated publicity and enforcement activity and local community engagement on road safety.

- The non-governmental sector is active in promoting improvements in driver standards and police enforcement.

- Safety partnerships at local level - which include coordinating publicity and enforcement activity - are well established, but not universal.

- A large amount of research on Safe Road Use and young driver behaviour is carried out and there is good national capacity.

- Some surveys on safe behaviours are carried out.

- There is annual reporting of traffic offences.

- Local authority work on safe road use is strongly supported by Road Safety GB.

- Local authority guidance has been developed by the RAC Foundation.

- The SHARP programme for consumer information on motorcycle helmets is available for wide use.

Weaknesses

- Driving licensing standards do not fully address the needs of high-risk young drivers and riders.

- Important gaps in the driver licensing framework are evident which could be addressed by GDL.

- A lack of national leadership on the operation of heavy goods vehicle safety requirements is evident.

- Reduced levels of combined publicity and police enforcement are reported.

- Education, publicity and traffic policing levels in police forces and local authorities have been severely reduced following national budget cuts and local decision-making (see also Funding & Resource Allocation Section 7.2).

- Policing of key road safety rules by non-automated means is generally weak and is a key concern of the road safety community.

- Safe System principles are not yet being generally adopted in local education, training and publicity work.

- Safe System principles are not yet being generally adopted in the variety of traffic policing priorities applied in different forces.

- Safe road use needs within a Safe System approach (in addition to that provided by other Safe System elements) through improved road user standards and assisting compliance with key road safety rules requires national guidance.

- Surveys of safe behaviours are too limited.

- Research-based findings are insufficiently well-heeded in national public and private sector policies on Safe road use.

15.5 Recommendations

15.5.1 This section provides the key recommendations for the intervention safe road use.

Central government and its agencies

15.5.2 The DfT should:

- Review how safe road use can be supported within a Safe System approach (in addition to that provided by other Safe System elements) through improved road user standards and assisting compliance with key road safety rules.
- Ensure that driver licensing standards better address the needs of high-risk young drivers and riders and older drivers by:

  - Monitoring graduated driver licensing developments in Northern Ireland to inform decision on implementing in Britain, together with review of the evidence around impact of non-licence based young driver interventions generated by the Driver2020 research and overseas research findings.
  - Revising provisions concerned with penalty points earned by offending learner motorcyclist licences as highlighted in the recent DfT consultation.
  - Reviewing age requirements for the renewal of driver licences and accompanying provisions as recommended by the Older Drivers Task Force.

- Lower the blood alcohol limit to 50mg/100ml for the general driving population which could produce identified reductions of at least 120 deaths and serious injuries in alcohol-related road collisions, and in line with current public opinion survey evidence and internationally identified good practice.
- Review the safety of commercial vehicle operating standards.
- Carry out THINK! campaigns across a wide range of media, coordinated with police enforcement effort, to promote Towards Zero and secure better compliance with key road safety rules.
- Commission research into public perception of the risk of being detected for key road safety offences, e.g. excess alcohol and speed.

15.5.3 The Ministry of Justice should:

- Review speed offence prosecution thresholds against international best practice.

15.5.4 The Home Office should:

- Support police enforcement of safety rules through finance and equipment, especially evidential roadside breath testing equipment, and national guidance.

15.5.5 The police should:

- Upgrade the priority given to high visibility enforcement in policing strategy and increase activity.
- Ensure understanding of Safe System principles for Safe Road Use in determining priorities.
- Review speed offence prosecution thresholds against international best practice.

15.5.6   Public Health England should:

- Play a highly visible role in drawing community attention to the fatal and serious injury risks associated with different types of road use as part of its injury prevention policy.
- Play a highly visible role in supporting evidence-based intervention for safe road use.

Local government

15.5.7   Local authorities should:

- Devise community engagement strategies with the Safe System goal towards the ultimate prevention of deaths and serious injuries.
- Ensure capacity and budget for the publicity work of road safety officers to ensure combined publicity and enforcement of key road safety rules.
- Ensure an evidence-based approach to determining priorities for safe road use.
- Adopt Safe System principles in local education, training and publicity work.

Professional sector and civil society

15.5.8   Professional sector and civil society should:

- Promote demonstrably effective intervention in advocacy to government and industry.
- Assist in the development of guidance on Safe System approach.

Business and industry

15.5.9   Business and industry should:

- Promote and provide demonstrably effective intervention on safe road use in products and services.

16. POST-CRASH CARE

16.1 Classification

16.1.1 *Post-Crash Care* concerns the rescue, treatment and rehabilitation of crash victims. The aim is for efficient emergency notification, fast transport of qualified medical personnel, correct diagnosis at the scene, stabilisation of the patient, prompt transport to point of treatment, quality emergency room and trauma care, and extensive rehabilitation services. The aim is to reduce the severity if injury and its consequences should a crash injury occur.

16.2 Main Findings

Introduction

16.2.1 Both at national and international levels, it is evident that despite its acknowledged importance, post-crash care has had the least attention as a specific intervention in road safety strategy. However, a focus on the prevention of serious and fatal injury requires efforts to reduce the consequences of injury once it has occurred and post-crash care research indicates large scope for doing so.[174]

16.2.2 The appropriate management of road casualties following a crash is a crucial determinant of the chance and quality of survival. Research indicates that about 50% of deaths from road traffic collisions occur within minutes at the scene or in transit and before arrival at hospital. For those patients who are taken to hospital, some deaths occur within the first 4 hours after the crash (15%) but the majority occur after 4 hours (35%).[175] As the World Report on Road Traffic Injury Prevention[176] underlined, there is not so much a "golden hour" in which interventions have to take place as there is rather a chain of opportunities for intervening across a longer timescale.

16.2.3 Effective post-crash care reduces the consequences of injury by efficient emergency notification, fast transport of qualified medical personnel, correct diagnosis at the scene, stabilization of the patient, prompt transport to point of treatment, quality emergency room and trauma care, and rehabilitation services. The quicker a patient has access to the emergency medical system, the greater the chances of surviving and making a full recovery. Research indicates that reducing the time between road crash occurrence and the arrival of emergency medical services from 25 to 15 minutes could reduce deaths by one third.[177]

16.2.4 Research has indicated that the prevention of trauma - unspecific, extensive, and life-threatening injury - should be treated within ten minutes, and more extensive medical care should be provided within one hour, preferably at a specially equipped trauma

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[174]https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/ersosynthesis2016-summary-postimpactcare5_en.pdf

[175] Buylaert W ed. (1999) Reducing injuries from post-impact care. ETSC, Brussels.

[176] Peden M, Scurfield R, Sleet D, Mohan D, Hyder A, Jarawan E and Mathers C eds. (2004). World Report on Road Traffic Injury Prevention, World Health Organization and World Bank, Geneva.

[177] Sánchez-Mangas R, García-Ferrer A, De Juan A, Arroyo A M (2010). The probability of death in road traffic accidents. How important is a quick medical response? Accident Analysis and Prevention 42(2010) 1048).

centre. [178] When not treated with timely and adequate response, trauma may lead to incapacitating injuries or death. Less serious injuries and injuries that lead to immediate death are to a lesser degree dependent on immediate treatment.

16.2.5   There is general acknowledgement by policymakers and safety experts that more is needed in this area for road safety strategy in view of potential to reduce consequences of injuries and long-term rehabilitation costs[179].

16.2.6   One disappointing aspect of this review is the difficulties encountered with engaging with policymakers in Public Health England as well as National Health England. No meetings were held with either organisation.

Emergency medical response

16.2.7   No national information is available to indicate the efficiency of emergency medical response to serious and fatal road collisions.

16.2.8   The Department of Health (DoH) requires that the ambulance service reaches 75% of category A (life-threatening) calls within eight minutes. If onward transport is required a suitable vehicle should arrive on the scene within 19 minutes.[180] Monitoring of response since May 2011 is presented in Figure 5 which indicates the increasing challenge to meet targets. [181]

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[178] Champion, H. R. (2005). New tools to reduce deaths and disabilities by improving emergency care. DoT,   US Paper Number 05-0191.

[179] See Appendix B, Post-Crash Care: Central Government Departments/Agencies; Local Government; Advisory Groups; Associations and Charities; and Emergency Services

[180] Department of Health (2015) July 2015 Handbook to the NHS Constitution has Ambulance response time standards, p. 34 , www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england.

[181] Department of Health (2017). Statistical Note: Sept 2017 Ambulance Quality Indicators (AQI). https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/ambulance-quality-indicators-data-2017-18/ accessed on 30.11.17.
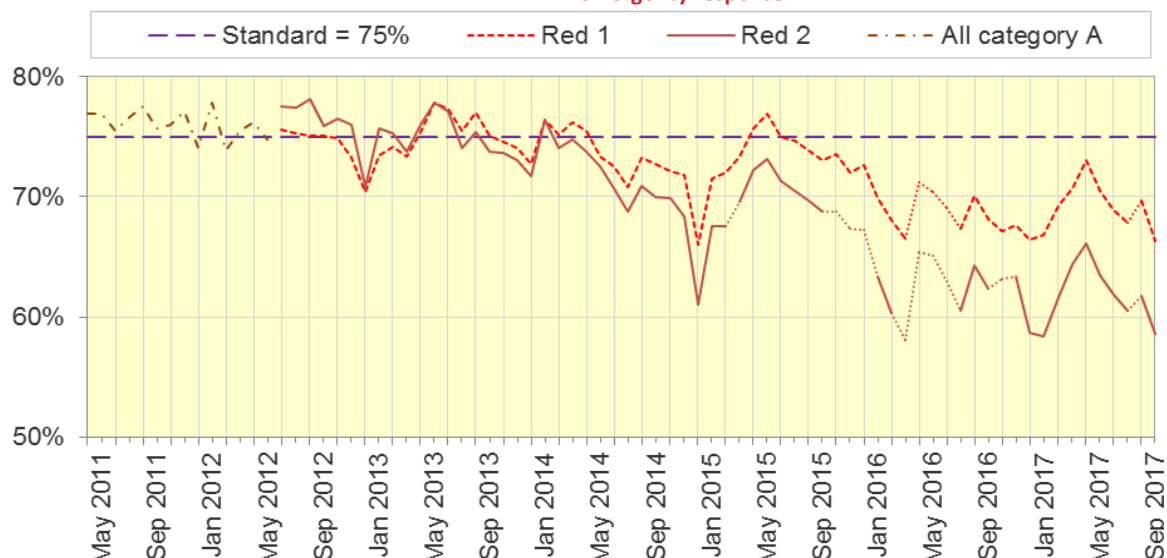
Source: NHS England, 2017

16.2.9   NHS England reports that there has been a steady decline in the number of Category A calls attended within eight minutes over the past few years as shown in Figure 4. In particular, there was a substantial decrease in performance from March 2014 to December 2014, although some of the change around this period was driven by London Ambulance Service (see the below chart 'How has the proportion of category A (red 1 and 2) calls attended within 8 minutes varied by commissioning region?'). Subsequent to this, there was some improvement, but this number fell again from May 2015. The national target of reaching 75% of Category A calls within eight minutes has not been met for 32 consecutive months.[182]

16.2.10   NHS England has been working with the Association of Ambulance Chief Executives and the College of Paramedics to implement the recommendations of the Ambulance Response Programme by October 2017:

   ○   *The ambulance service* uses a variety of means of providing initial emergency medical response. This includes aggressive treatment at the roadside from specially trained paramedics and critical care paramedics; use of different responders, such as air ambulance and, more recently, specially trained trauma doctors who go to the scene of injury to stabilise patients ahead of them being transferred to specialist care providers.

   ○   *Paramedics* have only been recognised in the last 20 years and are specially trained and meet qualification standards. They work independently and do not require a doctor's approval before undertaking certain assessments. In urban areas, it was reported that the use of two-wheeled motor vehicles by paramedics can reduce journey time and improve response rates.

   ○   *Air ambulances* usually have a consultant level doctor, experienced in trauma care, and a specialist paramedic. They have a faster response time and may be able to deliver more aggressive treatment which may increase survivability.

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[182] https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/ accessed on 30,11,17.

- *First-aid training* for the general driving population was noted as being an ineffective measure and is not recommended by the World Health Organisation as an effective intervention.

First responder training

16.2.11 Current good national practice is that police who attend collisions are all trained in first aid and police vehicles carry emergency equipment, e.g. defibrillators.

16.2.12 Some rural ambulance services offer an advanced emergency care course to some operational staff in the fire service due to their own stretched resources, and in the knowledge that the fire service is often first to the scene of a road collision. Courses cover emergency care theory and practical sessions with training on how to recognise the fundamental mechanisms of crashes and what happens to the human body and the ability to identify advanced signs and symptoms, e.g. internal bleeding. Some fire crews are therefore now trained to carry spinal boards, neck collars, pelvic straps and defibrillators to aid immobilisation and emergency medical care[183].

16.2.13 Driving instruction bodies train their members, who are often on the roads all-day, every day, in first responder first-aid so they can offer roadside assistance for a variety of different circumstances.

E-call

16.2.14 A new in-vehicle development is eCall, which aims to alert and advance emergency medical systems support in the event of crash. The system provides an automated message to the emergency services following a road crash which includes the precise crash location of the vehicle. As one road safety organisation highlighted, the potential of eCall to improve post-crash care is identified and deserved to be accelerated into the market.[184][185] The eCall system will be fitted to all new EU-registered cars from April 2018. There is concern by some that this system will divert emergency vehicles to sites where they are not needed or which do not need to be prioritised[186].

Trauma care

16.2.15 Major trauma is the main cause of death for people under the age of 45 and is a major cause of debilitating long-term injuries. Road traffic collisions are the second lead cause of major trauma (after falls) and twice as common in urban areas as in rural areas. [187] [188]

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[183] See Appendix B, Post-Crash Care: Emergency Services

[184] See Appendix B, Post-Crash Care: Business and Industry; and Academic Institutions

[185] http://www.roadsafetyobservatory.com/Evidence/Details/11498

[186] See Appendix B, Safe Vehicles: Emergency Services

[187] Trauma Audit and Research Network (TARN), (2017) November 2017, BRAKE, London

[188] University Hospital Southampton, NHS Trust
http://www.uhs.nhs.uk/OurServices/Emergencymedicine/Majortraumacentre/Majortraumacentre.aspx
accessed on 30.11.17.

Major trauma care and road traffic injury

A recent study shows that one in five (20%) patients admitted to trauma centres were involved in road crashes in 2016. Last year, 11,486 road users – the equivalent of 31 a day – were admitted to trauma centres in England and Wales with life-threatening injuries.

The regions with the highest proportion of road collision trauma patients were the Thames Valley (25%), North West London (23%), the West Midlands (23%), the East Midlands (22%) and East England (22%).

Of the 75,820 road crash victims admitted to trauma centres during the last decade young people (aged 16-25 year) are the most affected age group, accounting for more than one in five (21%) road traffic trauma admissions, including the largest group of vehicle passenger (32%), motorcycle (27%) and driver (21%) admissions. In the past decade, 5,657 children (under the age of 16) were admitted to a trauma centre following a road crash, making up seven per cent of all admissions; almost a third (32%) of these were admitted with serious head injury. Children also comprise the biggest age group for pedestrian casualties, accounting for nearly one in six (17%) trauma admissions.

According to the analysis, motorcyclists comprise the largest proportion of admissions (25%), followed by drivers (23%), pedestrians (21%), cyclists (16%) and vehicle passengers (12%).

Due to the severity of many road traffic collisions, almost a quarter (24%) of trauma patients go straight to intensive care following a crash. In terms of road user type, almost a third (32%) of pedestrians, and almost a quarter (24%) of cyclists, suffer serious head injuries, while over a quarter (28%) of drivers suffer severe chest injuries. Almost two in five (39%) motorcyclists are admitted with serious injury to their arms or legs. Five per cent of all admissions in 2016 later died from the injuries sustained.

Source: Trauma Audit and Research Network (TARN), (2017) November 2017, BRAKE, London

16.2.16   In 2010, the National Audit Office (NAO) issued a report which concluded that care for patients who have suffered major trauma, for example following a road accident or a fall, has not significantly improved in the last 20 years despite numerous reports identifying poor practice and services are not being delivered efficiently or effectively. [189] Survival rates vary significantly from hospital to hospital with a range from five unexpected survivors to eight unexpected deaths per 100 trauma patients reflecting the variable quality of care. The NAO estimated that 450 to 600 lives could be saved each year in England if major trauma care was managed more effectively.

16.2.17   The current system of major regional trauma centres and trauma units in hospitals has developed within the last 10 years. This development was based on international research, originally from the US and then Germany, providing evidence that regional major trauma centres are more effective for life preservation than local hospital care, even if they are situated further away than local hospitals. One study found that

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[189] National Audit Office (2010). Major trauma care in England. ISBN: 9780102963472

regionalisation of care to specialist trauma centres reduced mortality by 25% and length of stay by 4 days. [190]

16.2.18   Several contributors to this review noted that improvements in trauma care have made a real contribution to reducing deaths and that trauma care standards now compare favourably with international good practice. The introduction of regional major trauma centres is reported to have led to better recovery and outcome data than local hospitals. South Wales is the only region in England and Wales without a network[191].

16.2.19   The importance of the post-crash care strategy was underlined by the TARN organisation, below, as was the need to carry out further research to quantify the contribution which could be made to the prevention of death and disabling injury in road collisions.

Role of Trauma Audit and Research Network (TARN)

The Trauma Audit & Research Network (TARN) is a collaboration of hospitals from all over England, Wales, Ireland and other parts of Europe which supports a group of staff on a non-profit making basis; based at the University of Manchester, Hope Hospital, Salford. The Trauma Network has been operating since 1989 and in 1997 became self-funding. The TARN database is the largest trauma database in Europe with more than 200,000 cases including over 22,000 paediatric patients and provides research-based recommendations which have led to major changes in trauma care.

16.2.20   In order to improve understanding of post-crash care as a road safety strategy, two research needs are identified. These include 1) research on the contribution of post-crash care to reduce death and serious injury and 2) to ascertain the cost of long-term care of permanent impairment resulting from road traffic injury.

16.3   Strengths and Weaknesses

16.3.1   A summary of strengths and weaknesses of post-crash care is provided in Table 20.

Table 20. Strengths and weaknesses of Post-Crash Care

Strengths	*Weaknesses*
● Post-crash care is a proven means of reducing the consequences of injury.	● Post-crash care is not embedded in road safety strategies.
● Significant changes in major trauma centre organisation have taken place since 2010.	● The quantitative contribution of post-crash care to preventing death and mitigating the consequences of serious road traffic injury in Britain is not researched.
● Emergency medical system response to major trauma is targeted and monitored.	

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[190] MacKenzie E J, Rivara F P, Jurkovich G J, Avery B, Nathens M D, Frey K P, Brian L H, Egleston M P P, Salkever, D S, and Scharfstein D. (2006) A National Evaluation of the Effect of Trauma-Centre Care on Mortality. The New England Journal of Medicine, Volume 354:366-378, January 26th, 2006

[191] See Appendix B, Post-Crash Care: Local Government; Advisory Groups, Associations and Charities; and Emergency Services

- Continuing improvement in standards of emergency medical care and training is reported.

- First responder training is offered in several sectors.

- Automatic emergency notification in the form of the eCall system will be fitted to new cars in 2018.

- Emergency medical system response to major trauma is not meeting annual targets.

- Ambulance resource is overstretched.

- Hospital accident and emergency service are under pressure and provide inconsistent outcomes regionally.

16.4 Recommendations

16.4.1 This section provides the key recommendations for the intervention post-crash care.

Central government and its agencies

16.4.2 The DfT should:

- Include post-crash care in road safety strategy to improve survivability and reduce permanent impairment resulting from road collisions.
- Review the potential and specific contribution of emergency medical system response, trauma care and long-term rehabilitation of crash victims to reduce death and disability.

16.4.3 The Department of Health and National Health England should:

- Engage fully in national and local efforts to prevent and reduce death and serious injury, which is a leading cause of death for school children and young adults.
- Address regional variations in emergency medical response times.
- Report on the effectiveness of major trauma care in preventing death and serious injury following road crashes.
- Commission research on the cost of long-term care resulting from permanent impairment from road traffic injury.

16.4.4 Public Health England should:

- Recognise that road traffic injury is a major cause of premature death and disablement in their Strategic Plan and include road safety as an area for action.

16.4.5 The Ambulance Service should:

- Review policies for deployment to ensure that response time targets are met.

Local government

16.4.6 Local authorities should:

- Actively include post-crash care as a key road safety strategy in a Safe System approach.
- Work with the local health sector to identify local improvements in post-crash care.

Professional sector and civil society

16.4.7   Professional sector and civil society should:

- Actively include post-crash care as a key road safety strategy in a Safe System approach and work with lead agency to assemble, research relevant information to support it.

Business and industry

16.4.8   Business and industry should:

- Actively include post-crash care as a key work-related road safety strategy in a Safe System approach and work with lead agency to assemble, research relevant information to support it.
- Promote and provide demonstrably effective intervention in products and services for post-crash care.

17. SAFE AND HEALTHY MODES

17.1 Classification

17.1.1 *Safe and Healthy Modes* concerns the promotion of and access to safer modes as well as the road safety needs associated with increasing use of higher risk (due to users' vulnerability), but otherwise healthy, road user modes such as walking and cycling.

17.2 Main findings

Encouraging choice of safe modes

17.2.1 While different travel modes are promoted for different reasons, there is a substantial difference in levels of fatal crash injury risk between different modes of travel.

17.2.2 Rail is the safest land travel mode, followed by bus and coach travel. While there were five passenger fatalities on railways[192] in 2016, there have been no fatal train collisions or derailments in the UK since 2008. The fatality risks per billion passenger miles of travelling by car, although relatively low compared with more vulnerable modes, are 5 times higher than by bus travel. At the other end of the injury risk spectrum, the fatality risks of travelling by motorcycle are 52 times higher than by car, 3.5 times higher than by bicycle and almost 3 times higher than by foot. [193]

17.2.3 If public transport is considered as part of a trip, then safe access to public transport by pedestrians is a key consideration, including issues of accessibility for older pedestrians and users with a disability. Many road safety officers reported that the use of public transport was promoted to some degree within their local authority's road safety policy. Just over one third of those who responded to a survey as part of this review reported that they specified safety requirements in the public procurement of public transport services, within their local authority[194].

17.2.4 The value of the use of protective equipment such as helmets, particularly for children, was noted in an earlier section (15.2). While some activity is reported, cycle helmet use for children is not widely promoted at national level.

Delivering safe active travel

17.2.5 Consistent with the delivery of sustainable transport policies, and the promotion of healthy lifestyles and sustainable communities, there has been substantial new activity in recent years to promote active travel. This represents a significant political response to public demand for greater equity between motorised and non-motorised modes, in a short period of time, including mayoral support in London and elsewhere, the rollout of the Bikeablity programme, new funding, the development of a new national cycling and walking investment strategy and the recently established cycling safety review.

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[192] excluding light rail, tram and underground

[193] Department for Transport (2016) Reported road casualties in Great Britain 2016: Chart 2: Casualty and fatality rates per billion passenger miles by road user type: GB 2016

[194] See Appendix B, Safe and Healthy Modes: Local Government

17.2.6 Given the greater vulnerability of pedestrians and cyclists to the risk of death and serious injury, new attention to the planning and design of safe environments in line with Safe System principles is urgently needed, to avoid the adverse side effects of increases in walking and cycling on casualty risk. The long-term public health benefits of walking and cycling in terms of reducing obesity, a range of diseases where exercise has beneficial effects and reducing pollution are large. However, there are dangers in downplaying actual risks in favour of focus on perceived risk of premature death and serious injury before these benefits can be realised. These aspects raise important ethical issues for policymakers and practitioners. When wider issues of health and environment are considered the balance between motorised road transport (excluding motorcycling) and walking and cycling risk shifts if the road environment is planned with the safety of vulnerable modes as an objective.

17.2.7 An international comparison published in 2016 indicates that UK safety record for pedestrians and cyclists does not compare well with the leading road safety performers. The UK had an average of 6.8 pedestrian deaths per million people in 2013, compared with 5.8 in Denmark, 5.1 in Sweden, 3.7 in Norway and 3.6 in the Netherlands. The UK's higher pedestrian fatality rate is not explained by higher levels of walking in Britain. The proportions of pedestrian deaths who are children and who are elderly are greater in the UK than on average across the EU. The UK has a substantially larger proportion of road deaths who are children than Sweden has. IN EU countries, only Poland and Slovakia have proportionally more elderly pedestrian deaths than the UK. Per unit distance travelled, pedal cyclists in Britain are at approximately twice the level of risk of being killed than is the case in the Netherlands and Denmark where cycling is far more common. Cycling levels in Sweden and Norway are far more similar to those in Britain, yet the cycling fatality rates in both these countries are again much lower than that in Britain.[195][196]

17.2.8 The risks of road death and serious injury to school age children as vulnerable road users far exceeds the level of harm from most other sources of danger in public focus.

National cycling and walking investment strategy

17.2.9 A new strategy was introduced in April 2017 setting out ambitious goals for increases in cycling and walking.[197] Whilst there are specific, measurable targets set for increasing cycling and walking, and an unspecified goal for improving the safety of cyclists, there are no targets for increasing the safety of pedestrians[198].

Cycling and walking investment strategy ambition:[197]

"Objectives to 2020
We will:

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[195] Lawton B and Fordham C (2016). Published Project Report PPR796 for PACTS: Understanding the Strengths and Weaknesses of Britain's Road Safety Performance, Crowthorne, Berks.
[196] See also Appendix B, Safe and Healthy Modes: Advisory Groups, Associations and Charities; and Business and Industry
[197] Department for Transport (2017). Cycling and walking investment strategy. HMSO, London
[198] See Appendix B, Safe and Healthy Modes: Central Government Departments/Agencies

- Increase cycling activity, where cycling activity is measured as the estimated total number of cycle stages made.
- Increase walking activity, where walking activity is measured as the total number of walking stages per person.
- Reduce the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled.
- Increase the percentage of children aged 5 to 10 that usually walk to school.

Objectives and targets to 2025
We aim to:

- Double cycling, where cycling activity is measured as the estimated total number of cycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025, and will work towards developing the evidence base over the next year.
- Increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025, and will work towards developing the evidence base over the next year.
- Increase the percentage of children aged 5 to 10 that usually walk to school from 49% in 2014 to 55% in 2025."

A new expert committee will be responsible for reporting to the Minister for Cycling and Walking on the ongoing delivery of the Investment Strategy and monitoring progress against the objectives in the first phase of the Strategy and beyond. The Investment Strategy also set out funding mechanisms in support of implementation, although without new investment beyond previous announcements (See Section on Funding).

17.2.10 While no mention is made of the Safe System approach in the DfT's Cycling and Walking investment strategy, one of three objectives to 2040, *Better Safety - A safe and reliable way to travel for short journeys,* aspires to ensuring:

- Streets where cyclists and walkers feel they belong, and are safe;
- Better connected communities;
- Safer traffic speeds, with lower speed limits where appropriate to the local area; and
- Cycle training opportunities for all children.

17.2.11 The Strategy also states that through their Local Plans and planning decisions, local planning authorities should ensure developments where practical:

- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians; and
- Site key facilities such as primary schools and local shops within walking distance of most properties, particularly within large-scale developments.

17.2.12 In September 2017, the DfT announced an urgent review into cycle safety, following a series of high profile incidents involving cyclists. The review will look at whether a new offence equivalent to causing death by careless or dangerous driving should be introduced for cyclists (informed by an independent legal expert's report, which was subsequently

published in March 2018[199]), as well as wider issues of improvements for cycling road safety issues. It will involve a range of road safety and cycling organisations, as well as the general public and will consider different ways in which safety can be further improved between cyclists, pedestrians and motorists.[200] Responding to stakeholder recommendations that the review should be widened to consider pedestrian safety, in March 2018, the DfT published a Call for Evidence on Cycling and Walking Safety. This supports the ambition in the Cycling and Walking Investment Strategy to make cycling and walking the natural choice for shorter journeys, or as part of a longer journey.[201] This document highlights that the DfT will be considering infrastructure and traffic signs, the laws and rules of the road, training, educating road users, vehicles and equipment and as well as attitudes and public perceptions in the work to identify ways to improve cyclist and pedestrian safety.

17.2.13   Local road safety professionals and safety research experts noted that the large investments in cycling infrastructure being implemented in towns and cities are highly useful as is the integration of cycling safety into public health[202]. However, they point to the existence of gaps between sustainable travel and casualty reduction in terms of national ambition and implementation. Furthermore, while pedestrians are at greater risk of death and serious injury than cyclists, walking is currently seen as the 'poor cousin' in policy announcements. At the same time, many road safety managers reported that an active travel policy to encourage walking and cycling had been established or they were in the process of doing so. It was also reported that new measures were being introduced simultaneously to address the safety of walking and cycling.

17.2.14   Cycling organisations and safety experts who contributed to the review pointed to the need for review of design standards for cycling, noting that existing guidance on separated facilities was over ten years old. There is wide support for lower speed limits and improved compliance in urban areas used by cyclists and pedestrians. However, several authorities are working to a policy of continuing to implement lower speed limits using traffic calming measures, such as chicanes and road humps. Many professionals are awaiting the results of DfT's research on the use of 20mph limits without self-enforcing provisions.   Another risk for cyclists and pedestrians, evident in police data, is the high non-compliance of motor vehicle drivers with 30mph speed limits in urban areas with 54% of car drivers, 52% of light van drivers and 44% of heavy good vehicle rivers exceeding the limit[203].

17.2.15   Vehicle safety experts point to the value of the autonomous emergency braking directed at improving the safety of pedestrians and to voluntary overridable intelligent speed assistance (ISA) in improving pedestrian and cycling safety. See Safe Vehicles section. In London, a focus on vehicle aspects of HGV and bus safety derives from HGV involvement

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[199] Cycle Safety Review – Independent Legal Report. https://www.gov.uk/government/publications/cycle-safety-review

[200] Department for Transport and Jesse Norman, Press Notice, 21st September 2017. https://www.gov.uk/government/news/government-launches-urgent-review-into-cycle-safety

[201] Call for Evidence Cycling and Walking Investment Strategy: Safety Review https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/686419/cwis-safety-review-call-for-evidence.pdf

[202] See Appendix B, Safe and Healthy Modes: Local Government; Advisory Groups; Associations and Charities; Business and Industry

[203] Data provided by National Police Chiefs' Council

in 25% of pedestrian fatalities and 38% of cyclist fatalities, despite contributing only 4% of the miles driven in London. Buses are four times more likely to be involved in a fatal or serious collision with a pedestrian than would be expected for their share of traffic.[204]

17.2.16   London requires ISA to be fitted to all public transport buses and requires key safety requirements in allowing access of heavy goods vehicles.

17.3   Strengths and Weaknesses

17.3.1   A summary of the strengths and weakness for safe and healthy modes is provided in Table 21.

Table 21. Strengths and weaknesses of Safe and Healthy Modes

Strengths	*Weaknesses*
• A national cycling and walking investment strategy has been produced. • New national policy on cycling and walking safety is being developed and coordinated with Ministerial leadership (in September 2017 the Minister announced a review into cycle safety). • Local plans for walking and cycling are being encouraged and promoted. • Ring-fenced investment in cycling including the provision of facilities has been made in recent years. • London and other cities are targeting improvements in the safety of cycling and walking. • London's street matrix model noted in Section 12.2 provides a useful framework for integrating the safety needs of pedestrians and cyclists. • Research is being carried out on 20mph limits.	• Britain's safety record for pedestrians and cyclists does not compare well to the leading road safety performers internationally. • While specific quantitative targets have been set to increase walking and cycling, they have not been set for reducing the numbers of deaths and serious injuries for pedestrians and cyclists. • While a quantitative objective has been set to reduce the rate of death and serious injury for cyclists, the level of ambition is not specified and there is no similar provision for pedestrians. • The risks of road death and serious injury to school age children far exceeds the level of harm from most other sources of danger in public focus. • Compliance with urban speed limits is poor. • Urban design standards require updating. • Cycle helmet use for children is not widely promoted at national level. • Government general advice to remove road humps as an anti-pollution measure is unhelpful. (See Safe Speeds Section 13.2.4).

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[204] Matson L (2016). London's road safety priorities – the role of safer vehicles. Presentation to PACTS Safer Vehicles Conference http://www.pacts.org.uk/wp-content/uploads/sites/2/PACTS-Conference-Lilli-Matson-June-2016-FINALv1.pm accessed on 30.11.17.

17.4 Recommendations

17.4.1 This section provides the key recommendations for the intervention safe and healthy modes.

Central government and its agencies

17.4.2 The DfT should:

○ Encourage modal shift in support of environmental, safety and health objectives by promoting the use of the safest modes, e.g. rail, bus and coach travel and the healthiest modes of walking and cycling.

○ Support walking and cycling with safety improvements to address risks of serious and fatal injury risks associated with cycling and walking which are lower than for motorcycling but appreciably higher than those travelling by car or public transport.

○ Ensure scope of the current cycle safety strategy review to includes all Safe System intervention strategies.

○ Substantially upgrade the priority given to the safety of pedestrians which compares poorly internationally.

○ Establish measurable safety performance indicators which relate to the prevention of death and serious injury to pedestrians and cyclists.

○ Carry out a national review of urban design standards with pedestrian and cyclists in mind and align with Safe System principles.

○ Support demonstration projects applying innovative Safe System treatments.

○ Consider extending the Safety Helmet Assessment and Rating Programme (SHARP) scheme to include bicycle helmets.

Local government

17.4.3 Local authorities should:

○ Review the urban street classification and align with Safe System principles.

○ Ensure that there is safe access to public transport taking into account the needs of elderly and disabled people.

○ Improve compliance with urban speed limits, which is poor (see recommendations under safe speeds).

○ Ensure capacity for effective community pedestrian safety initiatives.

Professional sector and civil society

17.4.4 The professional sector and civil society should:

○ Provide guidance on speed hump design for local authorities.

Business and industry

17.4.5 Business and industry should:

○ Promote and provide demonstrably effective intervention in products and services for Safe and Healthy Modes.

18. SAFE WORK TRAVEL

18.1 Classification

18.1.1 *Safe Work Travel* concerns planned, systematic safety management of activity at the site of work, for work journeys on the road, and for commuter journeys to and from work, to reduce the risk of death and serious injury in road collisions. This involves publicly or privately owned or leased motor vehicles as well as travel by bicycle or on foot. About 30% of deaths and serious injuries occur in the course of work, not including travel to and from work.

18.2 Main Findings

Introduction

18.2.1 Road deaths at work, according to the national definition[205], are the leading cause of all deaths in the workplace, contributing at least 30% and 22% of serious injuries.[206] The size of the problem is under-estimated due to uncertainty as to the accuracy of journey purpose data in the national road crash injury data system, the lack of any requirement for employers to record work-related road traffic injury in the national occupational health and safety database, and lack of monitoring and evaluation of work-related road safety intervention at company and national levels. There are indications that other road users are nearly five times more likely to be killed than the driver. Work-related driving represents at least twice the injury burden of general work-related activity.[207]

18.2.2 However, as reported for many countries active in road safety, organisational management to improve road safety is less than evident in the mainstream of current occupational health and safety programmes in Britain. [208] The scope for achieving better results through a better focus on results and improved safety quality of activity is large. Work-related road safety is identified as an area deserving increased national focus by central and local government, national experts, road safety organisations and by the business sector.

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[205] According to the Health and Safety Executive (HSE, 2014) the management of occupational road risk applies to 'any employer with employees who drive, or ride a motorcycle or bicycle at work, as well as self-employed people. It also applies to those using their own vehicle for a work-related journey.' The scope used in international standards works also includes commuting to and from work.

[206] Helman S, Christie N, Ward H, Grayson G, Delmonte E and R Hutchins (2014), Strategic review of the management of occupational road risk, Prepared for RoSPA, Birmingham.

[207] Christie N, Ward H and S Helman (2017.) The changing nature of driving for work and questions for safety policy and practice. A paper for PACTS and the Transport Safety Commission's Work-related Road Safety Forum, May 2017.

[208] International Standards Organisation (2016) Small M and J Breen. Start-up Guide to ISO 39001: Road Traffic Safety Management Systems, ISO, Geneva.

Current activities by organisations

18.2.3   While of variable quality [209], a large amount of work-related road safety activity is carried out by a wide variety of organisations.

18.2.4   The Royal Society for the Prevention of Accidents has had long-term involvement in creating awareness about what employers can do through and establishing networking such as the Occupational Road Safety Alliance.

18.2.5   Driving for Better Business campaigns to raise awareness of the importance of work-related road safety in the business community and public sector by using advocates drawn from these communities to promote the business benefits of managing it effectively. The Transport Safety Commission has established a work-related Road Safety Forum comprising the DfT, HSE and a range of organisations and experts concerned with work-related road safety with the aim of brining key partners together, achieving better understanding of the problem and identifying useful next steps.

18.2.6   BSI has engaged very actively in the international development of BS: ISO 39001 (2012) which set out a new Road Traffic Safety Management System standard with requirements and guidance for use. The standard "provides a tool to help organisations reduce, and ultimately eliminate, the incidence and risk of death and serious injury related to road traffic crashes".

18.2.7   The ISO standard aligns with international good practice on road safety management systems and is based on the Safe System approach, including the requirement that top management adopts the long-term Safe System goal. It encourages the setting of road safety performance framework. A Start Up guide has been prepared to help organisations adopt the standard into 'family' of management system standards.[210] Japan is the global leader in the number of organisations certified to ISO 39001 currently totalling 162. Strong promotion of this standard by BSI, government and the non-governmental sector is not evident yet in the United Kingdom with under 10 companies currently certified.

18.2.8   A range of activities have been recommended, and meetings hosted by advisory groups have brought together key actors to explore how a more effective response to work related road death and serious injury can be delivered.

18.2.9   TfL has also set out requirements as well as encouraged vehicle safety-related improvements by operators of freight transport who want access to London's roads. The voluntary Fleet Operator Recognition Scheme (FORS) has been used in the haulage industry since 2011 to promote safety, efficiency and environmental best practice, awarding companies Bronze, Silver or Gold accreditations depending on the standard achieved. TfL is also working closely with the motorcycle delivery and courier industry to explore the expansion of the existing scheme to include those companies which use motorcycles in London. This is largely focused on providing training intervention in the

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[209] Christie N, Ward H and S Helman (2017.) The changing nature of driving for work and questions for safety policy and practice. A paper for PACTS and the Transport Safety Commission's Work-related Road Safety Forum, May 2017

[210] International Standards Organisation (2017). Start Up Guide to ISO 39001, Geneva.

current scope, but has the potential to encourage demonstrably effective measures such as the fitment of anti-lock braking systems for two-wheeled motor vehicles.

18.2.10   Highways England has a Health and Safety Plan[211], but it has not adopted BS ISO 39001 which it sees as too onerous. Its aim for the future is "no one should be harmed when travelling or working on the Strategic Road Network". The target for the Traffic Officer Service accident frequency rate is for a reduction of 52% by 2018 and a further 16% by 2020 based on 2014/15. Highways England is engaged with the Driving for Better Business Programme Campaign. However, there is some concern as to whether Highways England is taking into account Safe System principles when trialling increases in the speed limit from 50mph to 60mph at various sections of motorways. The aim is to see if the speed limit can be increased in roadworks without putting people at risk. A Safe System approach would require assessing the protective qualities of the road and roadside before setting or changing a speed limit.

18.2.11   Local authorities are also engaging actively in work-related road safety though several road safety managers who contributed to the review reported that this work has been hampered by the loss of the Road Safety Grant. About half of local authorities contributing to the review have adopted Safe Travel policies, but these are still rare at public sector level in central government.

Research review: current activity

18.2.12   Recent research reflects on the safety quality of current approaches and delivery and make a series of recommendations. [212] Apart from a lack of adequate reporting of work-related road injuries and a detailed understanding of the risks involved, researchers conclude that there is a weak regulatory framework around work related driving. For example, there is no investigator for work-related road collisions nor requirement to report within an occupational health and safety framework. In some cases (for example van drivers not requiring an operator licence), there is no need to demonstrate competence. While corporate manslaughter legislation is in place, it is barely used for cases involving work-related road collisions and injuries. Few interventions are evaluated. The research review concludes that there is the need for:

- More leadership and follow through on work-related road safety on the part of the HSE and the DfT and the top management of organisations;
- A better national regulatory framework to address safety elements of current work practices;
- HSE to require new reporting requirements to RIDDOR [213] when someone has been injured on the roads whilst using the road for work or when someone driving or riding for work injures a member of the public;
- Checks on data quality in STATS19;
- Better understanding of the risks involved through more research;
- Promotion of known risks;
- Evaluation of work-related road safety intervention; and

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[211]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/624552/Health_and_Safety_five_year_plan_May_17.pdf accessed on 30.11.17

[212] Christie N, Ward H and Helman S (2017.) The changing nature of driving for work and questions for safety policy and practice. A paper for PACTS and the Transport Safety Commission's Work-related Road Safety Forum, May 2017.

[213] RIDDOR (Reportable Injuries, Diseases and Dangerous Occurrences Regulations) database.

○ Adoption of BSI ISO 39001 standard for organisations on road traffic safety management systems. [207]

National policy

18.2.13 The national policy framework for work-related road safety is led by the DfT in cooperation with the HSE. Additional, specific legislation to the wide range of road traffic regulation includes the Corporate Manslaughter and Corporate Homicide Act 2007, in which senior management can be prosecuted for any gross negligence towards the safety of its employees. The EU Directive 89/391/EEC also sets out employers' duty of care.

18.2.14 At the end of 2015, with the aim of encouraging better occupational road safety, fleet management and procurement was set out as an objective in the British Road Safety Statement. The DfT will evaluate existing safer driving for work schemes to understand what works, specifically looking at the role of:

○ Telematics products;
○ Company reporting on collision rates;
○ Effective employee intoxication policies;
○ Procurement of safer vehicles;
○ Good practice relating to vehicle design and driver training; and
○ Driving techniques and behaviours which are not only safer but also more fuel efficient.

18.2.15 One key action for introduction in the short term is identified in the Statement. The DfT notes that procuring vehicles with modern safety features not only benefits the safety of the people who drive them for work. It also accelerates the rate at which these safer vehicles enter the second-hand car market. Actions for the short term involve increasing consumer awareness of the Euro NCAP star rating system for vehicle safety and exploring additional options for incentivising the consumer uptake of safer vehicles. In addition, the aim is to improve the safety of the national vehicle fleet, including by updating the Government Buying Standards which is seen by vehicle safety experts and the leasing sector as being particularly useful. The DfT has identified the vehicle leasing sector as a key collaborator 'as it accounts for one tenth of cars and up to one quarter of Heavy Goods Vehicles (HGVs) on our roads'. A representative of the sector believes that the current biggest opportunity (being missed) is safety management of the government's grey fleet.

18.3 Strengths and Weaknesses

18.3.1 A summary of strengths and weaknesses for safe work travel is provided in Table 22.

Table 22. Strengths and weaknesses of Safe Work Travel

Strengths	*Weaknesses*
● New national policy for work-related road safety is foreseen in the British Road Safety Statement. ● Highways England has a Health and Safety Plan. ● Transport for London is actively encouraging safe work travel.	● While the lead cause of death at work, work-related road safety has not been a priority in occupational health and safety policy and management in Britain. ● National and local governmental leadership and agency coordination has been missing.

- The UK has been actively involved in developing a recent ISO standard on road traffic safety management systems for organisations.
- A Work-Related Road Safety Forum has been set up by the Transport Safety Commission.
- Some but not all local authorities have adopted safe travel policies.
- Business sector networks exist to increase awareness of the importance of work-related road safety.

- Much activity lacks an evidence base.
- Lack of activity to ensure drivers and riders are aware of risks.
- Data reporting mechanisms are insufficient, as is available, national research on work - related road safety.
- BSI: ISO 39001 is not widely promoted, nor is much in use by organisations in Britain.

18.4 Recommendations

18.4.1 This section provides the key recommendations for the intervention safe work travel.

Central government and its agencies

18.4.2 The DfT should:

- Work with the HSE to provide governmental leadership and better coordination with the national road safety strategy for effective work-related road safety activity in Britain.
- Conduct a research programme to extend the evidence base for effective national work-related road safety.
- Review the reporting of 'journey purpose' in STATS19 data in the STATS19 review (see also Monitoring and Evaluation Section 9.2.4).
- Encourage the adoption of BSI: ISO 39001 Road Traffic Safety Management System Standard through public procurement policies and other incentives, following a review of how greater take up can be encouraged.
- Support local authority work-related road safety activity.
- Establish a Safe Travel Policy for government services taking Safe System principles into account.

18.4.3 The Health and Safety Executive should:

- Upgrade priority given to work-related road safety which is the leading cause of death at work and ensure that it is in the mainstream of occupational health and safety policy.
- Require reporting of work-related road collisions to RIDDOR when someone has been injured on the roads whilst using the road for work, or when someone driving or riding for work injures a member of the public (see also monitoring and evaluation).
- Carry out an awareness-raising programme amongst occupational drivers and riders to highlight the risk of death and serious injury to other road users.
- Address the work-related road safety needs posed by the so-called 'gig' economy.

Local government

18.4.4   Local authorities should:

- Engage with local employers on work-related road safety.
- Encourage the adoption of BSI: ISO 39001 Road Traffic Safety Management System Standards through public procurement policies and other incentives.
- Establish a Safe Travel Policy for local government services taking Safe System principles into account.

Professional sector and civil society

18.4.5   The professional sector and civil society should:

- Promote BSI: ISO 39001 for take up by organisations.
- Contribute to the developing evidence base for work-related road safety.

Business and industry

18.4.6   Business and industry should:

- Promote BSI: ISO 39001 to employers.
- Create a road safety management system for the organisation.
- Promote better recording of employee injury in work related driving.
- Ensure that intervention is monitored for effectiveness.
- Adopt BSI: ISO 39001 in their organisations in line with international good practice.
- Promote and provide demonstrably effective intervention in products and services for Safe and Work Travel.

19. RESULTS

19.1 Classification

19.1.1 The final element of the road safety management system concerns the specification of the desired results and their expression as targets in terms of final outcomes, intermediate outcomes, and outputs.[214]

19.1.2 Targets define the desired safety performance endorsed by governments at all levels, stakeholders and the community. The level of safety is ultimately determined by the quality of the delivered interventions, which in turn are determined by the quality of the country's institutional management functions. Good practice countries set quantitative outcome and intermediate outcome targets to achieve their desired results focus. They can also set related quantitative output targets in line with the targeted outcomes." [215]

19.1.3 In the absence of national road safety targets, a summary of current road safety outcomes for final outcomes, intermediate outcomes and institutional outputs are presented in tables in the next section. Detailed information is available in Road Casualties Great Britain 2017 and other governmental statistical reports.

Final outcomes

19.1.4 Final outcomes represent the social cost and value of prevention, fatalities and serious injuries in road crashes presented in numbers and also in terms of rates per inhabitants, vehicle and volume of travel. Final outcomes in a Safe System approach are expressed as the long-term Safe System goal for the future safety of the road traffic system to eliminate death and serious injury supported by interim quantitative targets to reduce the numbers of deaths and serious injuries

Intermediate outcomes

19.1.5 Intermediate outcomes are linked to improvements in final outcomes and provide a closer means of assessing the underlying level of safety, rather than relying on relatively rare instances of crashes or injuries. Typical intermediate outcomes or safety performance indicators include average vehicle speeds, levels of excess speed, the proportion of excess alcohol in fatal and serious injury crashes, seat belt wearing rates, helmet-wearing rates, the safety rating of the road network, the safety rating of the vehicle fleet and emergency medical response.

Institutional outputs

19.1.6 Outputs represent physical deliverables that seek improvements in intermediate and final outcomes which can also be measured, targeted and monitored. Typical measures include kilometres or miles of engineering safety improvements, the number of police

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[214] Bliss T (2004). *Implementing the Recommendations of the World Report on Road Traffic Injury Prevention*, Transport Note No. TN-1, World Bank, Washington DC.

[215] Global Road Safety Facility (2009) Bliss T and Breen J. *Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects.* World Bank, Washington DC.

enforcement operations required to reduce average traffic speeds and other intermediate outcomes and the number of vehicle safety inspections, or alternatively they can correspond to milestones showing a specific task has been completed.

19.2   Key outcome and output indicators

Main final outcome results: GB 2016 or 2015

- Total road deaths – 1792
- Total serious injuries – 24,101
- MAIS 3+ serious injuries 4,692*
- Road deaths per million population – 28
- Serious injuries per million population-378
- Between 2006 and 2016 deaths fell by 44% and serious injuries by 16%**
- Total cost of fatal and serious road traffic accidents-£8,639 million
- 45% of deaths and 37% of serious injuries were amongst car occupants
- 18% of those killed and 23% of those seriously injured were motorcyclists.
- 25% of those killed and 21% of seriously injured were pedestrians
- 6% of deaths and 14% of serious injuries were amongst cyclists
- 22% of vehicle occupant deaths were in single vehicle crashes
- 51% of deaths occurred on non-built-up roads and 5% on motorways.
- 44% of deaths were on built-up roads
- Excess speed reported as a contributory factor in 22% of fatal and 14% of serious injuries
- 22% of motor vehicle occupants who were killed were not wearing a seat belt*

2015

** Changes in severity reporting systems for a large number of police forces in 2016 mean that serious injury figures are not comparable with earlier years. 2006-2015 change in number of serious injuries was 22%

Main intermediate road safety outcomes GB – different years

- 98.2% of drivers, 96.7% of front seat passengers and 90.6% of rear seat passengers were observed using seat belts in 2014 survey in England and Scotland.
- 46% of cars, 47% of light commercial vehicles and 1% of articulated HGVs exceeded the speed limit on motorways in 2016.
- 8% of cars and 24% of HGVs exceeded the speed limit on 60mph single carriageways in 2016.
- 53% of cars, 56% of LGVs and 43% of HGVs exceeded the speed limit on 30mph roads in 2016.
- 14% of deaths in 2015 involved a driver over the legal blood alcohol limit.
- 1.5% of car drivers were observed in 2014 using a hand-held mobile phone.
- 72% of new cars sold to September 2017 are Euro NCAP 5* rated.
- An early iRAP star rating using a 1*-4* star rating of the strategic road network in 2010 indicated that: *

  - 50% of all motorways are rated 4* and 50% are 3*.
  - 20% of dual c/way A roads are rated 4* and 78% are 3*.
  - 62% of single c/way A roads are rated 2*, most of the rest are 3*.

○ Emergency response target of 75% of category A calls being reached in 8 minutes is an increasing challenge with rates in 2016-2017 generally between 60 and 70%.

latest figures using revised iRAP rating 1*-5* are not yet published.

Selected institutional road safety enforcement outputs

○ There were 590,260 convictions for motoring offences in England and Wales in 2016 of which 46% were driving offences.

○ Causing death or serious injury accounted for 0.3% of driving offences, drink-driving 14%, speeding 62%, dangerous driving 1%, and mobile phone use 4%.

○ Vehicle insurance, registration and excise licence offences accounted for a third of all motoring offences.

○ There were 520,000 roadside screening breath tests in England and Wales in 2015 of which 12% were positive or refused.

○ In 2015 in England and Wales 1,016,827 fixed penalty notices were issued, 78% for speeding.

○ There were 59,021 reported seat belt offences in 2015 representing 67% reduction on the 2010 level.

○ DVSA carried out 58,909 mechanical checks on vehicles in 2015/16 resulting in 34.6% prohibitions, and 42,643 drivers' hours checks resulting in 6.2% prohibitions.

SECTION 5: CONCLUSIONS

20. CONCLUSIONS

20.1.1   Britain is one of the global leaders in road safety and has achieved its results over decades by means of a systematic, planned, research-based response to road safety problems. Notwithstanding the good progress achieved, and as in most other countries active in road safety, there is widespread concern about current road safety results amongst the road safety community in Britain. This review has found strong support for more ambitious activity to address the large scope for preventing avoidable death and serious injury in road crashes. .

20.1.2   In 2016, 1792 people lost their lives on British roads, the highest total since 2011. The trend in road fatalities has been broadly flat since 2010. There was a 5% drop in UK fatalities compared to 17% for the EU average in the period between 2010 and 2015. A further 24,101 crash victims were seriously injured. Road traffic injury represents a leading national cause of major trauma and for some age groups, a leading, if not lead cause of death when compared to all other causes. Research-based forecasts indicate that unless more effective action is taken, 350,000 people will be killed or seriously injured in Britain between 2010 and 2030[216]. Apart from this human cost, the societal value of prevention of the 3.5 casualties of all severities is estimated to be around £160 billion. The large scope for preventing avoidable human tragedy is evident and is not being sufficiently addressed.

20.1.3   The context for road safety is constantly changing and is set to change in ever more fundamental ways by 2030. The roll-out of known, effective safety measures is essential to address the increasing risks from trends in choice of active travel modes and the need to address the safe mobility of an ageing population. The introduction of new technologies such as driverless cars will need careful planning and anticipation of possible risks such that the potential road safety benefits are realised.

20.1.4   The government has embarked upon an ambitious long-term course in adopting the Safe System approach in line with international best practice. Most professionals view Safe System as a sound approach which involves the extension and deepening of current practice. The Highways England strategic framework; the strategic work in some cities, and the recent launch of Safer Roads Fund are widely cited as highly promising. At the same time, Safe System is not yet fully launched or promoted, nor is there sufficient understanding across the sectors of what this means for their road safety work in Britain. This review makes a variety of recommendations, summarised in the preceding sections, to address this.

20.1.5   In any country or jurisdiction, the context for road safety activity is highly complex (given its multi-sectoral and multi-disciplinary nature), and careful leadership is a critical success factor. Bold leadership and further steps by the national lead agency for road safety, the DfT, are sought.

20.1.6   In Britain, the complexity of this road safety context has increased in recent years, both due to new developments in localism and greatly reduced budgets, as well as some falling away from successful past practice. This is evident in many sectors and is the cause of widespread concern by practitioners and professionals, including policymakers. There is national consensus amongst those with everyday responsibilities for road safety that the

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[216] Mitchell C G B and R E Allsop (2014). Projections of road casualties in Great Britain to 2030, PACTS, London

priority given to road safety has been slipping for some years into unknown territory and that the momentum and rate of progress in casualty reduction seen in previous decades has been lost. Continued fragmentation and dilution of established effective practice is a threat to future road safety performance.

20.1.7 The principal conclusion of this review is that the absence of a national road safety performance framework is impeding progress. It is clear that this has been a major factor in the marked reduction in priority and observable recession in results-focused road safety activity in virtually every sector, and in both national and local government.

20.1.8 Over a two-decade period up to 2010 a carefully derived strategic national safety policy framework and quantified casualty reduction targets provided focus for national and local activity and substantial reductions in deaths and serious injuries in road crashes were achieved.

20.1.9 It is widely reported that the absence of national quantitative targets to reduce death and serious injury since 2010 has contributed to a different focus from, or reduced focus on, death and serious injury prevention and reduction in important policy areas. While localism is cited nationally as being the primary reason for the withdrawal of targets, road safety professionals (across many sectors, including local government) are not convinced, observing that locally relevant targets are set in many other areas, e.g. housing, other areas of public health, motor vehicle emissions and walking and cycling.

20.1.10 Professionals have reported problems with retaining a road safety priority, or in some cases even the function itself, in local authority policymaking and investments. Problems are evident in the low priority now given to enforcing key road safety rules. Above all, a lack of a rationale for joint working was reported within departments, across central government, with and within local authorities and across the wider road safety profession. The lessening involvement of key agencies with core responsibilities at national and local level is challenging meaningful shared road safety responsibilities in key sectors. Current activity, in general, remains highly fragmented and lacks focus.

20.1.11 The relationship between setting quantified road safety targets and achievement of the reduction of death and serious injuries in road collisions is well established in research findings. International organisations working with road safety see target-setting as a global success story. Successful application of a Safe System approach requires a Safe System performance framework. This comprises the setting of an explicit long-term goal towards the ultimate prevention of death and serious injury, and interim measurable targets to reduce deaths and serious injuries. These must be underpinned by a range of supporting, targeted, measurable outcomes and outputs which are directly linked to the prevention of death and serious injury. As noted in global guidance on road safety management provided by the World Bank, national goals and quantified objectives are the essential foundation stone in support of achieving better results. In their absence, the focus and rationale for all other institutional delivery functions (i.e. coordination, funding and resource allocation, legislation, promotion, monitoring and evaluation, research and development and knowledge transfer) lack cohesion.

20.1.12 A further conclusion reached in this review, is the lack of appropriate investment in results-focused, evidenced-based road safety activity which has influenced the amount and quality of road safety work. In many areas, including policing and health and local authority work, this has been severely reduced. Alongside the setting of goals and

quantitative targets, more financial resource is required to improve joint working, innovation and efficiency in delivery. It is clear that the current level of spending is not commensurate with the current value of prevention and that there are many opportunities for large returns on investment presented by a wide variety of systematic, demonstrably effective interventions. The long-term Safe System approach involves working towards the prevention of serious and fatal crash injury risk for as long as it takes to achieve it acceptably and affordably. Safe System treatments in The Netherlands, Sweden, Norway and elsewhere have so far shown good ratios of benefits to cost and have proved to be publicly acceptable. Large, potential returns in investment for the British road network have been identified.

20.1.13   Britain has taken a bold next step in addressing the need for results focused road safety management by adopting Safe System in the British Road Safety Statement. In order to make a success of this and to prevent the substantial avoidable tragedies experienced daily on UK roads this report concludes that critical success factors will be:

- Strong ministerial leadership;
- A planned, systematic, accountable approach to road safety management with clear roles and responsibilities;
- The adoption of a national long-term goal towards the ultimate prevention of death and serious injury; and
- The adoption of national interim quantitative targets to 2030 to reduce death and serious injury, supported by a set of related safety performance objectives to foster closer management, more efficient delivery and use of public resource to achieve better results.

Report Appendices

LIST OF APPENDICES

Appendix A: The Path to Safe System & Identified Best Practice

1. THE PATH TO SAFE SYSTEM AND THE EVOLUTION OF RESULTS FOCUS[1]

1.1.1 Progressive shifts in road safety management thinking and practices in high-income countries have been evident. Since the 1950s there have been four significant phases of development, which have become progressively more ambitious in terms of the results desired.

1.1.2 **Phase 1** – Focus on driver interventions. In the 1950s and 60s safety management was generally characterised by dispersed, uncoordinated, and insufficiently resourced institutional units performing isolated single functions (Trinca et al., 1988). Road safety policies placed considerable emphasis on the driver by establishing legislative rules and penalties and expecting subsequent changes in behaviour, supported by information and publicity. It was argued that since human error contributed mostly to crash causation it could be addressed most effectively by educating and training the road user to behave better. Placing the onus of blame on the road traffic victim acted as a major impediment to the appropriate authorities fully embracing their responsibilities for a safer road traffic system (Rumar, 1999).

1.1.3 **Phase 2** – Focus on system-wide interventions. In the 1970s and 1980s, these earlier approaches gave way to strategies which recognised the need for a systems approach to intervention. Dr William Haddon, an American epidemiologist, developed a systematic framework for road safety based on the disease model which encompassed infrastructure, vehicles and users in the pre-crash, in-crash and post-crash stages (Haddon, 1968). Central to this framework was the emphasis on effectively managing the exchange of kinetic energy in a crash which leads to injury to ensure that the thresholds of human tolerances to injury were not exceeded. The focus of policy broadened from an emphasis on the driver in the pre-crash phase to also include in-crash protection (both for roadsides and vehicles) and post-crash care. This broadened it to a system-wide approach to intervention and the complex interaction of factors which influence injury outcomes. It underpinned a major shift in road safety practice which took several decades to evolve. However, the focus remained at the level of systematic intervention and did not directly address the institutional management functions producing these interventions or the results that were desired from them.

1.1.4 **Phase 3** – Focus on system-wide interventions, targeted results and institutional leadership. By the early 1990s good practice countries were using action focused plans with numerical outcome targets to be achieved with broad packages of system-wide measures based on monitoring and evaluation. Ongoing monitoring established that growing motorisation need not inevitably lead to increases in death rates but could be reversed by continuous and planned investment in improving the quality of the traffic system. The United Kingdom, for example, halved its death rate (per 100 000 head of population) between 1972 and 1999 despite a doubling in motorised vehicles. Key institutional management functions were also becoming more effective. Institutional leadership roles were identified, inter-governmental coordination processes were

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[1] OECD (2008), Towards Zero: Ambitious Road Safety Targets and the Safe System Approach

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created and funding and resource allocation mechanisms and processes were becoming better aligned with the results required. Developments in Australasian jurisdictions (e.g. Victoria and New Zealand) further enhanced institutional management functions concerning results focus, multi-sectoral coordination, delivery partnerships, and funding mechanisms (WHO, 2004; Bliss, 2004; Wegman et al., 2006; Trinca et al., 1988). Accountability arrangements were enhanced by the use of target hierarchies linking institutional outputs with intermediate and final outcomes to coordinate and integrate multi-sectoral activities. This phase laid the foundation for much of today's activity and reflects the state of development found in many higher performing countries.

1.1.5 **Phase 4** – Focus on system-wide interventions, long-term elimination of deaths and serious injuries and shared responsibility. By the late 1990s, two of the best performing countries had determined that improving upon the ambitious targets that had already been set would require rethinking of interventions and institutional arrangements. The Dutch Sustainable Safety (Wegman et al., 1997 and 2008) and Swedish Vision Zero (Tingvall, 1995; Committee of inquiry into road traffic responsibility, 2000) strategies re-defined the level of ambition and set a goal to make the road system intrinsically safe. The implications of this level of ambition are currently being worked through in the countries concerned and elsewhere. These strategies recognise that speed management is central and have re-focused attention on road and vehicle design and related protective features. The 'blame the victim' culture is superseded by 'blaming the traffic system' which throws the spotlight on operator accountability. These examples of Safe System approaches have influenced strategies in Norway, Finland, Denmark, Switzerland, Australia and the UK.

1.1.6 Today the growing view is that road safety is a system-wide and shared multi-sectoral responsibility which is becoming increasingly ambitious in terms of its results focus. Sustaining the level of ambition now evident in high-income countries requires a road safety management system based on effective institutional management functions that can deliver evidence-based interventions to achieve desired results. Achievement of the ultimate goal of eliminating death and serious injury will require continued application of good practice developed in the third phase of targeted programmes coupled with innovative solutions which are yet to be determined based on well-established safety principles.

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2.   SAFE SYSTEM IMPLEMENTATION[2]

2.1.1   In identified, effective practice in implementing the Safe System approach:

- More ambitious, accountable safety performance is targeted for the long-term and interim.
- Interim targets are not seen as acceptable performance levels but on a path towards zero.
- 'Measuring to manage' takes place with a sharper focus on operational targets using a range of validated evaluation tools, e.g. iRAP and Euro NCAP.
- Research and statistical analysis underpins the safety performance framework.
- Leadership by example is evident as well as creating a market for safety.
- Highly-focused, coordinated partnerships assist delivery.
- Affordable, evidence-based activity includes demonstrably effective new technologies.
- Innovation is evident, where standards are clearly deficient, based on well-established safety principles.
- Business cases are enhanced by aligning with other sectors for co-benefits of activity.
- A variety of guidance are available to assist knowledge transfer and embed Safe System.
- Funded demonstration projects help in getting started.

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[2] Loughborough University Design School and Jeanne Breen Consulting (2017) Short Course: The Safe System Approach: Managing for better road safety results, Overview of Safe System.

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Appendix B: Stakeholder Engagement

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1. INTRODUCTION

1.1 Overview

1.1.1 The overall approach to the Road Safety Management Capacity Review (RSMCR) required engagement with a wide range of stakeholders across the road safety partnership to understand the strengths and weaknesses of current road safety management capacity and how to overcome any weaknesses.

1.1.2 Key stakeholders, as well as those involved in the delivery or management of road safety on the ground, were engaged with using a wide range of approaches.

1.1.3 This Appendix, compiled by SYSTRA, provides:

- A summary of the stakeholder engagement process and those consulted with; and
- The views and perceptions expressed during the engagement process.

1.1.4 It should be noted that the views and opinions reported are those of stakeholders and survey respondents, and are not necessarily factually correct. All views are reported, and an indication as to whether specific views are widespread, is provided where possible.

1.2 Key Stakeholder Engagement

1.2.1 Methods of engagement for key stakeholders included face to face meetings with individuals and small groups, telephone interviews, and a larger workshop with plenary sessions and break out groups.

1.2.2 In total, 56 of the stakeholder organisations who were invited to take part in the review accepted, and were engaged with using these methods. The organisations who were engaged with, in addition to how they have been grouped for reporting purposes, are outlined below.

Central Government Departments/Agencies

- Department for Transport (DfT; including separate meetings with Road User Licensing, Insurance and Safety, International Vehicle Standards, Freight Licensing, Active Accessible Travel, Road User Standards and a number of other divisions)
- Driver and Vehicle Standards Agency (DVSA)
- Home Office (HO)
- Highways England (HE)
- Health and Safety Executive (HSE)
- Office of Rail and Road (ORR)
- Scottish Government
- Welsh Assembly Government
- Northern Ireland Assembly

Local Government representatives

- Association of Directors of Environment, Economy, Planning and Transport (ADEPT)
- Cambridgeshire County Council
- Derbyshire County Council
- Kent County Council
- Transport for London (TfL)

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- The Local Government Technical Advisers Group (TAG)

Advisory group, associations and charities

- 20s plenty
- British Cycling
- British Motorcyclists Federation
- British Vehicle Rental and Leasing Association (BVRLA)
- Child Accident Prevention Trust (CAPT)
- Cycling UK
- European New Car Assessment Programme (Euro NCAP)
- European Transport Safety Council (ETSC)
- I AM RoadSmart
- The Institute of Traffic Accident Investigators (ITAI)
- Motorcycle Industry Association (MCIA)
- Parliamentary Advisory Council for Transport Safety (PACTS)
- RAC Motoring Services
- Road Safety Analysis
- Road Safety Foundation
- Road Safety GB
- Road Safety Trust
- RoadPeace
- Roadsafe
- Royal Society for the Prevention of Accidents (RoSPA)
- Transport Focus

Business and industry representatives

- Association of British Insurers (ABI)
- Association of Car Fleet Operators (ACFO)
- British Standards Institution (BSI)
- Chartered Institution of Highways and Transportation (CIHT)
- Driving Instructor Association (DIA)
- Freight Transport Association (FTA)
- Institute of Car Fleet Management (ICFM)
- Society of Motor Manufacturers and Traders (SMMT)
- The Road Haulage Association (RHA)

Emergency service representatives

- Association Ambulance Chief Executives (AACE)
- Cumbria Fire and Rescue
- Dorset Police Force
- Merseyside Police Force
- National Fire Chiefs Council (NFCC)
- National Police Chiefs Council (NPCC)
- Trauma Audit and Research Network (TARN)

Academic institutions and consultancies

- Cranfield University
- Institute for Transport Studies, University of Leeds (ITS Leeds)

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- Loughborough University
- Nottingham University
- RAC Foundation
- Transport Research Laboratory (TRL)
- University College London (UCL)

1.3 On-line Survey Respondents

1.3.1 To increase the range of organisations engaged with as part of the RSMCR, online surveys were distributed to five different types of organisation involved in the delivery of road safety or with road safety responsibilities. Links to relevant on-line questionnaires were sent out by relevant umbrella bodies. Questionnaires for each organisation type were carefully tailored to address the specific remit of the organisation type in the road safety agenda.

1.3.2 The type of respondent, the organisation through which the survey was distributed, the number of people distributed to, and the number of responses received, are provided in Table 1.

Table 1. Survey Respondents, Organisation of Distribution

RESPONDENT TYPE	ORGANISATION RESPONSIBLE FOR DISTRIBUTION AND NUMBER DISTRIBUTED TO	NUMBER OF RESPONSES RECEIVED
Road Safety Officers (RSOs)	Road Safety GB (Circulated to 732 RSOs)	33
Local Authority Representatives	ADEPT (Circulated to 227 Local Authority Representatives and 13 Local Enterprise Partnership representatives on the ADEPT database)	24
Road Haulage Company Managers	Road Haulage Association (Circulated to 7000 road haulage companies on the Road Haulage Association database)	4
Fleet Managers	Association of Car Fleet Operators (Circulated to 383 fleet managers on the Association of Car Fleet Operators database)	17
Police Force Representative	National Police Chiefs' Council (Circulated to 43 police forces)	12
Ambulance Trust Representatives	Association of Ambulance Chief Executives (Circulated to 10 ambulance trusts)	1

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1.3.3   Due to the small sample size in each of the surveys outlined in Table 1, findings are provided as number of respondents rather than percentages throughout the report.

1.3.4   There was only one response to the survey distributed to ambulance trusts. This response has been amalgamated into the key stakeholder views to protect anonymity.

1.4   Appendix Structure

1.4.1   This Appendix is structured as follows:

- Chapters 2-8 provide views and perceptions relating to Institutional Management Functions; and
- Chapter 9-15 provide views and perceptions relating to Interventions.

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2. INSTITUTIONAL MANAGEMENT FUNCTION: RESULTS FOCUS

2.1 Central Government Departments/Agencies

Stakeholder Interview Findings

Roles and leadership

2.1.1 The DfT is perceived by central government departments and agencies as the lead agency for road safety. The Road Safety Standards and Services Directorate within the DfT takes the lead on road safety policy and co-ordination of road safety strategy. Many other Directorates within the DfT and other government departments and agencies have specific lead responsibilities for the carrying out of road safety intervention, e.g. Highways England for the strategic road network. It was acknowledged that achieving an effective structure between departments, divisions and agencies is hard, but that differing roles within these are fairly well defined, and overall work reasonably well together.

Results and Prioritisation

2.1.2 It was noted that UK KSI figures are still strong compared to many other countries, and that the reduction in KSIs is levelling off globally. But, at the same time, there was concern that KSIs are now beginning to creep up and that the UK road safety performance record is slipping behind that of Norway, Sweden and Switzerland.

2.1.3 Some central government and agency stakeholders share the view that whilst 'user experience' on the roads is currently a key issue, road safety is not given adequate priority, and this is exemplified by the fact that there is currently no manifesto commitment on improving road safety. The previous manifesto commitment on improving road safety was considered very helpful for road safety engagement and implementation, and securing funding in the Autumn Statement.

2.1.4 There is a general perception that there is currently a lack of shared goals and objectives between divisions and agencies, and a reduction in results focus and systematic prioritisation of measures to reduce the overall level of KSIs at lead agency level compared to previous years. Instead it is considered that there is more focus on all outcomes from road collisions, and that priorities are more transient.

2.1.5 Areas perceived by some to be the current focus include young drivers, older drivers, rural roads, automated vehicles and emissions. Areas perceived to currently be less prioritised than they used to be are vehicle safety (with discussions around which EU GSR/PSR measures would be acceptable or appropriate for the UK only beginning to take place now), motorcycle safety, pedestrian safety and child safety, and many felt that these areas should still be higher priority that they are at.

2.1.6 Some agencies consider that the apparent lack of prioritisation of road safety at the lead agency level has gone hand in hand with a lessening priority of road safety at a local authority level, including activity in policing and emergency services.

2.1.7 Many stakeholders considered that it is necessary for the DfT to have a more strategic focus on activities which will have the biggest impact.

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Target setting

2.1.8   There is widespread awareness that whilst target setting is widespread in many public policy areas (including a reduction in the rate of cycling KSIs in the Cycling and Walking Investment Strategy; and 11 road safety KPIs in the Highways England 2015-2020 Road Investments Strategy including targets for reduction of KSIs on the strategic road network), there are no longer road safety targets for KSIs set by the DfT.

2.1.9   Many stakeholders suggested that the lack of targets leads to a lack of road safety priority, funding, proactive activity and targets in other agencies such as policing, the fire service, DVSA, local authorities and health. Other consequences noted were:

  ⭕   A reduction in focus on road safety outcomes by Ministers;
  ⭕   It encourages activity over too wide an area, rather than concentrating on a welfare based analysis of where action most needed; and
  ⭕   Lack of road safety in the Home Office policing strategy.

2.1.10   However, in defence of the lack of targets it was noted that:

  ⭕   The British Road Safety Statement is considered in central government as the main driver of delivery, and has intermediate commitments that success can be measured by, with examples including: legislation to allow learners on motorways in dual control cars, with an ADI, the increase in mobile phone penalty points, and the Safer Roads Fund;
  ⭕   Government is publicly held to account for road safety results through stakeholder, media and political pressure; and
  ⭕   Work needs to take place to see where the biggest difference can be made without targets.

2.1.11   In addition to lack of target setting by the lead agency there is also a perception that road safety is inward looking with little attention paid to international goals and targets such as the Global Sustainable Development Goal targets and EU targets.

Safe System

2.1.12   Those more informed about the British Road Safety Statement are familiar with the Safe System approach and consider that embracing it in work streams is encouraged at a higher level. However, it is widely acknowledged that in these early days of implementation, there are gaps in understanding, and awareness and change in approach at all levels is slow, both in central government and at local authority level.

2.1.13   Some bodies were cited as better at adopting Safe System, including Highways England. Local authorities were cited as adopting the Safe System approach less well. It was considered that the bigger budgets and bigger network of Highways England made adoption of this approach easier. It was also suggested that the Safe System approach could be better promoted to local authorities by both DfT and Highways England, with more indication of the most effective activities to support it.

2.1.14   Concern was expressed by one stakeholder that adopting Safe System means the focus is on KSIs rather than reducing injuries of all severities, and equally that whilst Towards Zero is considered positively, Vision Zero seems defeatist.

2.1.15   The Safer Roads Fund was mentioned by two stakeholders as being important in developing and embedding Safe System capacity and understanding. It has highlighted

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the gap between expectations and what is being delivered by local authorities in practice. Whilst it is early days in terms of capacity building, there is considered to be a change in perception and approach in activity in some local authorities. Stakeholders hope that successful approaches can be rolled out.

2.2   Local Government

Stakeholder Interview Findings

Responsibilities

2.2.1   The distribution of road safety responsibilities is described as varied and complex at a local level.

2.2.2   Many at a local level perceive DfT as not taking an adequate leadership role in road safety and would like to see them take a stronger national leadership role, setting a long-term goal, national KSI targets, providing consistency of approach, issuing green papers and rolling out best practice. The lack of targets was perceived to affect all aspects institutional delivery.

Target setting

2.2.3   The increase in localism, and the absence of national targets and the safety performance monitoring associated with targets, is considered to have had a big impact on the priority given to road safety at a local level, and with this, a decrease in funding. This is seen as becoming increasingly important as road safety outcomes worsen, especially amongst young drivers, and increasingly related to drink and drug related driving offences.

2.2.4   Stakeholders argued that targets put pressure on politicians, at a local level, to get involved in decision making processes and engage in the bidding process to receive road-safety funding. Without targets local authorities no longer secure funding.

> *"Government shot themselves in the foot big time when they removed the targets… when the government axed the targets, the local authorities, straight away, said 'well don't bother us with that, there's no money there'… there was a view at a local level that you don't need to waste time, you have limited resources anyway so don't worry about reporting accident information."*
>
> (Local authority representative)

2.2.5   Some local authorities, TfL and city authorities have set their own KSI reduction targets but it is considered that the majority have not. Even where local targets exist, stakeholders feel that this does not negate the negative impact of lack of national target setting. Examples targets for KSI reductions include overall KSIs, and separate targets for children, motorcycle casualties, occupational road risk, cyclists, pedestrians, drink-driving, drunk-driving and young drivers. TfL also have bus specific targets and a Vision Zero for KSI by 2041 and are now looking for new metrics for a performance framework for activities supporting these targets (intermediate outcomes).

Safe System

2.2.6   In general stakeholders feel that a holistic Safe System approach is not generally understood or evident in local authority road safety activity. However, there is some

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evidence of local authorities pursing the Safe System approach, including through Safer Road Fund iRAP activity. In addition, there is considered to be a shift in funding from education, training and publicity, to engineering projects.

2.2.7   A perceived barrier to Safe System implementation is the lack of change in regulations, legislation and guidance to enable road engineers to adopt the new approach, in particular the Construction and Design Management Regulations which do not enable engineers to remove risk.

> *"If they [government] had actually looked at the legislation and regulations that road networks are designed under, and reviewed those, this [Safe Systems] would be a huge success."*
>
> (Local authority representative)

Road Safety Officer Survey Findings

2.2.8   Thirty-three RSOs responded to questions on results focus in the online survey.

Responsibility for road safety

2.2.9   Thirty-one RSOs indicated where the responsibility for road safety sits within their local authority. In summary, it sits in the following departments:

- 22   in the Highways Department;
- 5   in Transport Planning;
- 1   in Public Health; and
- 3   in other or multiple local authority departments, with the 'other' including:

    - Infrastructure and Facilities Teams;
    - Traffic, Safety and Network Management Teams;
    - Fire and Rescue Service;
    - Road Safety and Sustainable Travel; and
    - Data Analysis Team.

2.2.10   There was a high level of agreement with the statement '*there is a clear focal point with responsibility for road safety*':

- 14   totally agreed;
- 14   most agreed;
- 5   partially agreed; and
- 0   disagreed.

2.2.11   Often, RSOs suggested that the responsibility for road safety was divided between multiple local authority departments, and that responsibility could be decided by the local authority itself or by higher-level agencies. There was some concern that responsibilities were clear internally but were not clear to the general public.

2.2.12   Levels of reported agreement with the statement '*the authority is formally held to account for their road safety performance*', were:

- 7   totally agreed;
- 6   mostly agreed;

- 11   partially agreed;
- 6   disagreed; and
- 3   did not know.

2.2.13   Accountability practices cited included annual performance reports provided for internal management, the combined authority, and the public. There was some concern by those who were not aware of accountability practices that attention was not given to local authority performance.

Road Safety Priority/Strategy

2.2.14   RSOs reported many priorities for road safety intervention in their local authorities. These were:

- Casualty reduction, with specific focus on vulnerable road users, namely young and older drivers, motorcyclists, pedal cyclists, pedestrians and those driving for work;
- Engineering projects, particularly, the completion of road safety audits and highway improvements, with a focus on rural roads, speed reduction (e.g. 20mph zones), cycle infrastructure and accident hotspots;
- Tackling inappropriate behaviour, such as speeding, drink and drug driving, careless and dangerous driving, seatbelt non-compliance and mobile phone use through targeted behavioural change programmes, enforcement and re-training and working with the police and local community to conduct these;
- Increasing knowledge, analysis and intelligence; and
- Providing safer travel education, particularly to young children, learner and young drivers, with a focus on safe, sustainable methods (e.g. Bikeability).

2.2.15   Methods for identifying priorities for road safety intervention included:

- Community concern;
- The priorities of third party delivery groups;
- Road safety research undertaken in other parts of the UK;
- Statistical analysis undertaken by the local authority, including cost benefit analysis and forecast and audit of casualties (including assessing where collisions occur, the number of collisions occurring within the area, who was involved, the speed they were travelling and where the route originates). One form of data cited was STATS19. Detailed statistical analysis of this kind was said to be dependent on staff resource;
- Local strategy, which is usually based on statistical analysis. For instance, Local Transport Plans, Mayors Transport Strategy and Partnership Strategies; and
- National initiatives, for instance, working in line with the NPCC calendar, or Central Government priorities, such as Vision Zero and casualty reduction outside of schools. However, there was some concern that national initiatives can sometimes reduce resource for local priorities, which can make it difficult to reach any local targets set.

2.2.16   Levels of reported agreement with the statement *'road safety is a key policy area'*, were:

- 29   totally agreed;
- 6   mostly agreed;
- 15   partially agreed; and
- 3   disagreed.

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2.2.17   Some of those who disagreed indicated that road safety was only addressed due to statutory duties and partnership strategy. Reasons cited for partial agreement were reduced staff resource, skill and experience, and greater prioritisation being given to education and social work.

2.2.18   Levels of reported agreement with the statement *'there is a strategy for addressing KSIs'* were:

- 11   totally;
- 12   mostly agreed;
- 9   partially agreed; and
- 1   disagreed.

2.2.19   Reasons cited for partial agreement or disagreement were lack of clarity on how to reduce KSIs, with particular reference to Education, Training and Publicity (ETP), and current development of strategies, for instance, to reflect the Safe System approach or align road safety with public health.

2.2.20   Differing levels of agreement with the statement *'there are safety performance indicators which are causally related to KSIs'*, were reported by RSOs:

- 10   totally agreed;
- 7   mostly agreed;
- 12   partially agreed;
- 3   disagreed; and
- 1   did not know.

2.2.21   Of those who did have safety performance indicators, causally related to KSIs, they were believed to correspond to transport network management and higher strategies, such as the Mayor's Transport Strategy. There was some concern that indicators were not considered beyond immediate team members and that submission of these to government was a stretch on resource, especially when raw data was already available.

2.2.22   Differing levels of agreement with the statement *'safety performance indicators, which are causally related to KSIs, are monitored'*, were also reported by RSOs:

- 11   totally agreed;
- 8   mostly agreed;
- 9   partially agreed;
- 3   disagreed; and
- 2   did not know.

2.2.23   Of those whose local authority did monitor safety performance indicators, causally related to KSIs, there was some concern that indicators were not considered beyond immediate team members and that national targets should be reintroduced.

2.2.24   Asked about the statement *there are long-term goals and targets for preventing KSIs within this authority'*:

- 9   totally agreed;
- 17   mostly agreed;
- 3   partially agreed; and
- 4   disagreed.

SYSTRA

2.2.25   Of those who were aware of long-term goals and targets, most targets were set regionally and required an update for upcoming years. Some RSOs suggested that a lack of long-term goals and targets was decided in order to reflect the absence of national targets. Other RSOs cited concern for the lack of national targets, suggesting that this practice did not reflect international best practice or the Safe System approach and did not provide a common goal for road safety stakeholders, or offer a level of accountability.

2.2.26   Asked about the statement *'there are interim goals and targets for preventing KSIs within this authority':*

- 10   totally agreed;
- 8   mostly agreed;
- 10   partially agreed;
- 4   disagreed; and
- 1   did not know.

2.2.27   RSOs whose local authorities do not have interim goals or targets suggested that a lack of targets was decided in order to reflect the absence of national targets. Again, RSOs cited concern about the lack of national targets, suggesting that this practice did not reflect international best practice or the Safe System approach and did not provide a common goal for road safety stakeholders, or offer a level of accountability.

British Road Safety Statement

2.2.28   Differing levels of agreement were found with the statement, *'road safety activity is tailored in response to the British Road Safety Statement (BRSS)'* in that:

- 2   totally agreed;
- 5   mostly agreed;
- 16   partially agreed;
- 9   disagreed; and
- 1   did not know.

2.2.29   Of those who did tailor their road safety activity in response to the BRSS, it was suggested that this was a result of following of higher strategies, such as the Mayor's Transport Strategy. Reasons cited by those who did not tailor their road safety activity in response to the BRSS related to lack of awareness and lack of applicability of the BRSS at a local level, or to pre-existing suitability of road safety activity.

Safe System Approach

2.2.30   Asked about the statement, *'the Safe System goal and strategy is being adopted by our authority'*:

- 2   totally agreed;
- 7   mostly agreed;
- 13   partially agreed;
- 7   disagreed; and
- 4   did not know.

2.2.31   Reasons cited by those who believed their local authority did not totally adopt the Safe System approach, include:

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- ○ Difficulty trying to encourage change, especially with a lack of resource;
- ○ Difficulty with emphasis on capital resource requirements, especially when road safety capital is nil budgeted;
- ○ Adoption of certain aspects, such as Vision Zero, but not all aspects; and
- ○ Pre-existing suitability of road safety goal and strategy, already representing the same core pillars as Safe System.

2.2.32 Similarly, differing levels of agreement with the statement, *'there are processes in place locally to ensure awareness and understanding of the Safe System approach':*

- ○ 1 totally agreed;
- ○ 6 mostly agreed;
- ○ 9 partially agreed;
- ○ 13 disagreed; and
- ○ 4 did not know.

2.2.33 Even in local authorities where it was believed that awareness and understanding of the Safe System approach is present, there was some concern from RSOs that awareness and understanding will still not lead to its adoption. It was considered that the approach needs greater adaptation to be applicable to areas where there is larger use of sustainable than unsustainable transport methods, such as cities. Concerns raised include:

- ○ Low level of awareness of the Safe System approach, especially in devolved authorities and in organisations other than independent agencies and Highways England;
- ○ The radical changes required by local authorities to implement the Safe System approach;
- ○ Scarce DfT communication in general; and
- ○ The ability to deliver all Safe System elements, especially with the disconnect between the current rate of human design and transport and highway advancement.

2.2.34 Asked about the statement: *'there are processes in place nationally to ensure awareness and understanding of the Safe System approach'*:

- ○ 0 totally agreed;
- ○ 9 mostly agreed;
- ○ 11 partially agreed;
- ○ 7 disagreed; and
- ○ 5 did not know.

2.2.35 Concerns raised were the same issues as for the previous statement.

2.2.36 Asked to explain any barriers faced in implementing the Safe System approach in their local authority, 21 RSOs provided a response. In particular a large cultural change was thought to be necessary, with acknowledgement of:

- ○ Lack of resource, especially staff with expertise and knowledge on the Safe System approach and policies, design standards and strategies based on Safe System principles;
- ○ Lack of acknowledgement of the Safe System approach and its value;
- ○ Lack of funding needed for Safe System project investments;
- ○ Physical constraints to road layout;

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- Limited control over rider/driver standards;
- The extensive timescale needed to embed a Safe System approach; and
- A lack of coordination and communication between road safety partners on their priorities.

2.2.37 RSOs suggested that barriers to embedding/further embedding Safe System within local authorities could be overcome through the following processes:

- Increasing funding to allow for Safe System project investment;
- Enhancing the priority given to Safe System, with central government taking the lead and sending directives to local authority Chief Executives;
- Improving coordination, possibly through central government lead, to establish common goals and reduce silo working;
- Introducing clear national targets, with supporting guidance and scrutiny;
- Developing a EuroRAP-style assessment for local roads, to identify investment potential and outcomes, in terms of casualty reduction;
- Supplying more information on Safe System and how it can be applied in practical terms;
- Providing staff training; and
- Reviewing the value of Safe System approaches against current road safety processes.

National Targets

2.2.38 Asked to comment on the statement *'a national long-term goal for prevention of KSI would benefit road safety activity and priority in my authority'*:

- 19 strongly agreed
- 9 agreed;
- 2 disagreed;
- 0 strongly disagreed; and
- 3 did not know.

2.2.39 Of those who reported agreement with the statement, there was a common belief that a national long-term goal for KSI prevention would benefit local authorities through:

- Creating a collective priority focus and aim to work towards, with the hope that this would increase resource locally;
- Allowing for clearer prioritisation of tasks, which would allocate resource more efficiently; and
- Placing UK practice in line with international best practice.

2.2.40 There was some concern from RSOs that national long-term goals for KSI prevention would only be effective if the following were also considered:

- Creation of clear accountability;
- Increased resource and funding to achieve targets, therefore not decreasing moral; and
- The effectiveness of monitoring, with a focus on increasing the accuracy of STATS19 data.

SYSTRA

2.2.41   As with the long-term target, RSOs commonly reported agreement with the statement, *'interim national numerical targets for reducing KSI would benefit road safety activity and prioritisation in my authority'* in that:

- 16   strongly agreed;
- 9   agreed;
- 5   disagreed;
- 1   strongly disagreed; and
- 2   did not know.

2.2.42   The benefits and concerns relating to interim targets mirror those reported under long-term targets, other than the following additional concerns and comments about interim targets:

- Tailoring of targets to local issues is key, in order to make them realistic;
- Inclusion of vulnerable road users and KSI contributing factors within targets is required;
- Difficulty may come with analysis; and
- Problems may occur with the implementation of the new CRASH recording system.

Barriers to achieving road safety results

2.2.43   The majority of RSOs (28) described some kind of barriers which they faced in implementing road safety activity in their local authorities. These were included:

- Lack of time, resource, funding and expertise, both within local authorities and within external partners (e.g. lack of resource in the police reducing support of local authority enforcement interventions). There was some concern that this would make long-term projects and the integration of Safe System difficult;
- Outsourcing reducing specialist professional expertise;
- Pressure and lack of understanding from senior management and elected members;
- Public perceptions and behaviours, with some RSOs citing difficulty with the 'war on the motorist' perception;
- Unrealistic expectations of road safety interventions;
- Reducing the dominance of motor traffic;
- Slow acceptance of environmental changes and changes in road user behaviours;
- A lack of appreciation for all road user groups;
- Difficulties evidencing the impact of education, training and publicity;
- Lack of coordination of road safety activity creating duplications in initiatives; and
- Lack of priority for road safety activity both within central government (where other areas, such as social care, are prioritised), within schools (where road safety is not on the national curriculum) and within local authorities and partner organisations (where road safety engineering is often prioritised over education, training and publicity).

2.2.44   RSOs suggested that barriers to implementing road safety activity could be overcome through the following processes:

- Increasing time, resource and funding from DfT and/or Highways England to local authorities to improve the standards of road safety engineering and education,

training and publicity, with the suggestion that increased funding could come from increased congestion charging;

- Improving the priority given to road safety and encouraging support from senior management and politicians;
- Reviewing driver and rider standards, training and ability;
- Introducing clear national targets, interim and long-term, with supporting guidance and scrutiny to allow for appropriate funding allocation;
- Advancing coordination in local delivery plans, government departments (e.g. DfT, Department for Health and the Home Office) and road safety partners (e.g. local authorities, the police service and the fire and rescue service) to ensure that road safety is appropriately prioritised and delivered by all locally, regionally and nationally; and
- Increasing awareness of local authority services, aims, outcomes and value.

Local Authority Survey Findings

2.2.45   Twenty four local authority representatives responded to questions on results focus in the online survey.

Responsibility for road safety

2.2.46   Local authority representatives indicated that the responsibility for road safety sits in the following departments:

- 15   in Highways Department;
- 3   in Transport Planning;
- 2   in Public Health; and
- 4   reported in other or multiple local authority departments, or an external body, including:

    - Communities, Economy and Transport Department;
    - Commissioning into Operational delivery;
    - Education, Training and Awareness teams within the Fire and Rescue Service; and
    - Divided between Highways, Transport Planning, the Fire Service and/or Public Health.

2.2.47   There was a high level of agreement with the statement *'there is a clear focal point with responsibility for road safety at elected representative level'*:

- 11   totally agreed;
- 8   mostly agreed;
- 4   partially agreed; and
- 1   disagreed.

2.2.48   Often, local authority representatives suggested that the responsibility for road safety was given to a cabinet member for road safety, the environment, transport, public health, communities or highways. Those that disagreed suggested that there was not a clear focal point of responsibility at elected representative level, or within their local authority, and delegation of road safety responsibility between Highways and Public Health was cited as a cause for this concern.

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2.2.49   There was a high level of agreement with the statement '*there is a clear focal point with responsibility for road safety at officer level*':

- 17   totally agreed;
- 6   mostly agreed;
- 1   partially agreed; and
- 0   disagreed.

2.2.50   Often, local authority representatives suggested that there were clear leading officers for road safety education, engineering and enforcement projects. These officers were either within the local authority, as part of a dedicated road safety team or across multiple authority departments such as Public Health and Highways, or within a higher-level agency, such as a Road Safety Partnership. One representative suggested that a transition to the latter was currently being undertaken. There was some concern that delegation of road safety responsibility between Highways and Public Health created an unclear focal point with responsibility for road safety at officer level.

2.2.51   Levels of reported agreement with the statement *'the authority is formally held to account for their road safety performance'*, were:

- 8   totally agreed
- 5   mostly agreed;
- 7   partially agreed;
- 3   disagreed; and
- 1   did not know.

2.2.52   Of those who were aware of accountability practices, most involved a political process of reporting to either the cabinet or directorate within the local authority or the road safety partnership, and regular reviews by corporate services scrutiny.

Road Safety Priority/Strategy

2.2.53   Local authority representatives reported a number of priorities for road safety intervention in their local authorities. These were:

- Casualty reduction, with specific focus on vulnerable road users, namely children, young and older drivers, motorcyclists, pedal cyclists, pedestrians and those driving for work, with one local authority adopting Vision Zero;
- Engineering projects, particularly with a focus on speed reduction (e.g. 20mph zones) and accident hotspots;
- Tackling inappropriate behaviour, such as speeding, drink and drug driving, carless and dangerous driving and loss of control through education and re-training (ETP);
- Addressing road safety in deprived areas; and
- Delivering the Safe System approach.

2.2.54   Local authority representatives also reported a number of different methods for identifying priorities for road safety intervention in their local authorities. These were:

- Community concern raised through complaints and local consultations;
- Statistical analysis, cost benefit analysis, forecast and audit of casualties and routes, assessing where collisions occur, the number of collisions occurring within the area and who was involved. Forms of data cited were CRASH and STATS19;

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- Local strategy, which is usually based on statistical analysis. For instance, Mayors Transport Strategy and Partnership Strategies;
- Political agenda;
- Benchmarking against other local authorities;
- Alignment with Public Health;
- Evidence on effectiveness and perceptions of the effectiveness of road safety education, training and publicity, with some local authorities prioritising the intervention based on the number of people reached and trained and the lasting behavioural change; and
- National campaigns.

2.2.55   There was some concern regarding the amount of time and resource needed for such prioritisation approaches.

2.2.56   One local authority representative suggested that their prioritisation approach was reactive, rather than proactive.

2.2.57   Levels of reported agreement with the statement *'road safety is a key policy area'*, were:

- 13   totally agreed;
- 8   mostly agreed;
- 2   partially agreed; and
- 1   disagreed.

2.2.58   Of those who did consider road safety a key policy area, road safety was addressed within Public Health, Sustainable Transport and Community Safety policies and Local Transport Plans. One local authority was currently developing new policies and local transport strategies to address road safety. There was some concern about the effects of reduced staff resource, skill and experience to identify road safety as a key policy area.

2.2.59   Levels of reported agreement with the statement *'there is a strategy for addressing KSIs'* were:

- 12   totally agreed;
- 9   mostly agreed;
- 3   partially agreed; and
- 0   disagreed.

2.2.60   Strategies often formed part of a local or road safety partnership delivery plan and included analysis and assessment of sites and routes for the identification of collision location, and behavioural change interventions.

2.2.61   A small number of local authority representatives reported that their local authority was currently reviewing their road safety strategy.

2.2.62   Differing levels of agreement with the statement *'there are safety performance indicators which are causally related to KSIs'*, were reported by local authority representatives:

- 13   totally agreed;
- 2   mostly agreed;
- 5   partially agreed; and
- 4   disagreed.

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2.2.63   Of those who did have safety performance indicators, causally related to KSIs, they were believed to correspond to local transport plans, funding available, education, engineering and enforcement and road safety partnership priorities. There was some concern that indicators were difficult to decide, especially when attempting to align them with road safety partnership priorities, which may be set across local authority borders.

2.2.64   Differing levels of agreement with the statement *'safety performance indicators, which are causally related to KSIs, are monitored'*, were also reported by local authority representatives:

- 13   totally agreed;
- 4   mostly agreed;
- 3   partially agreed; and
- 4   disagreed.

2.2.65   Asked about the statement *'there are long-term goals and targets for preventing KSIs within this authority'*:

- 11   totally agreed;
- 5   mostly agreed;
- 7   partially agreed; and
- 1   disagreed.

2.2.66   Of those who were aware of long-term goals and targets, most targets were set until 2020 or currently under development. One local authority respondent stated that there targets for 2020 were aligned with Vision Zero.

2.2.67   Asked about the statement *'there are interim goals and targets for preventing KSIs within this authority':*

- 10   totally agreed;
- 5   mostly agreed;
- 7   partially agreed; and
- 2   disagreed.

2.2.68   Local authority representatives suggested that interim targets were set annually within their local authority, with an aim to reach the long-term targets set out in strategies and delivery plans.

British Road Safety Statement

2.2.69   Differing levels of agreement were found with the statement, *'road safety activity is tailored in response to the British Road Safety Statement (BRSS)'*:

- 1   totally agreed;
- 5   mostly agreed;
- 10   partially agreed;
- 4   disagreed; and
- 4   did not know.

2.2.70   Of those who did tailor their road safety activity in response to the BRSS, it was suggested that this was due to compliance with government advice and Safe System principles. Few local authority representatives suggested that road safety activity had not been tailored

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to the BRSS because road safety strategy was currently under review, lack of applicability of the BRSS at a local level and lack of resource.

Safe System Approach

2.2.71 Asked about the statement, *'the Safe System goal and strategy is being adopted by our authority'*:

- 2 totally agreed;
- 4 mostly agreed;
- 8 partially agreed;
- 8 disagreed; and
- 2 did not know.

2.2.72 Many reasons were cited by those who believed their local authority did not totally adopt the Safe System approach, including:

- Difficulty implementing the approach on established rural roads in comparison to new and truck roads;
- Lack of resource to prioritise adoption of the approach;
- Lack of awareness of Safe System principles;
- Adopting the approach in principle but not in action; and
- Pre-existing suitability of road safety goal and strategy, already representing the same core pillars as Safe System.

2.2.73 Similarly, differing levels of agreement with the statement, *'there are processes in place locally to ensure awareness and understanding of the Safe System approach':*

- 2 totally agreed
- 4 mostly agreed;
- 6 partially agreed;
- 11 disagreed; and
- 1 did not know.

2.2.74 Even in local authorities where it was believed that awareness and understanding of the Safe System approach is present, there was some concern from local authority representatives that awareness and understanding could still be improved, with many representatives also suggesting that their local authority was currently reviewing their road safety strategy to encompass Safe System and improve awareness.

2.2.75 Asked about the statement: *'there are processes in place nationally to ensure awareness and understanding of the Safe System approach'*:

- 0 totally agreed;
- 6 mostly agreed;
- 11 partially agreed;
- 5 disagreed; and
- 2 did not know.

2.2.76 There was some concern for:

- The differing levels of awareness of the Safe System approach in road safety engineering and education;

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- The lack of understanding and guidance around Safe System principles; and
- The variety in application of Safe System principles, nationally and locally, and the ability to deliver Safe System principles in rural authorities, with long lengths of historic tree-lined roads.

2.2.77   Just over two thirds (16) of local authority representatives described barriers which they face in implementing the Safe System approach, with the remaining third reporting that they do not. Barriers raised included:

- Lack of resource, especially staff with expertise, understanding and knowledge on the Safe System approach;
- Lack of support for the Safe System approach and its value across the local authority and from senior staff;
- Lack of funding needed for Safe System project investments;
- Physical constraints to road layout, especially with rural roads;
- Conflicts with local political priorities, such as the political acceptance of rural speed limits; and
- A lack of clarity on local authority relevance.

2.2.78   Local authority representatives suggested that barriers to embedding/further embedding Safe System within local authorities could be overcome through the following processes:

- Increasing funding, with suggestions of ring-fenced road safety grants for road maintenance and roads policing;
- Increasing resource, with suggestions of a dedicated road safety interventions team, more traffic officers and improved staff training on Safe System approaches;
- Enhancing the priority given to Safe System, with central government taking the lead and providing examples of best practice and clear national guidance on Safe System application at a local level. One local authority respondent suggested that this could be provided within the engineering design manual for roads and bridges;
- A formal adoption of technology, providing greater freedom in its use, with an example being enforcement technology;
- Proving greater freedom to local authorities in their use of surplus income;
- A national TV ad campaign; and
- Changes to driver licensing.

National Targets

2.2.79   Asked to comment on the statement *'a national long-term goal for prevention of KSI would benefit road safety activity and priority in my authority'*:

- 11   strongly agreed;
- 11   agreed; and
- 2   disagreed.

2.2.80   Of those who reported agreement with the statement, there was a common belief that a national long-term goal for KSI prevention would benefit local authorities through:

- Creating a collective priority focus and aim to work toward, with the hope that this would increase long-term resource locally;
- Allowing for clearer prioritisation of road safety in local decision making due to the creation of statutory obligations;

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- O Creating greater awareness of local authority activities and allowing for benchmarking between local authorities;
- O Providing national commitment and support from central government for road safety activities;
- O Ensuring consistency in local authority approach;
- O Producing accountability; and
- O Placing UK practice in line with international best practice.

2.2.81 There was some concern from local authority representatives that national long-term goals for KSI prevention would only be effective if the following were also considered:

- O Creation of interim targets;
- O Realistic achievability of targets;
- O Local authorities overall strategic goals;
- O Sanctions to local authorities for non-compliance and an awareness that reduced resource may lead to compliance with statutory obligations only;
- O Increased funding to achieve targets; and
- O The coordination between children's services, public health and road safety in the delivery of road safety interventions.

2.2.82 As with the long-term target, local authority representatives commonly reported agreement with the statement *'interim national numerical targets for reducing KSI would benefit road safety activity and prioritisation in my authority'*:

- O 8 strongly agreed;
- O 11 agreed;
- O 4 disagreed; and
- O 1 did not know.

2.2.83 Of those who reported agreement with the statement, there was a common belief that national interim targets for KSI reduction would benefit local authorities through:

- O Creating a collective priority focus and aim to work toward, with the hope that this would increase funding locally;
- O Allowing for clearer prioritisation of road safety in local decision making due to the creation of statutory obligations;
- O Creating greater awareness of local authority activities and allowing for benchmarking between local authorities; and
- O Providing national commitment and support from central government for road safety activities.

2.2.84 There was some concern from local authority representatives that national interim targets for KSI reduction would only be effective if the following were also considered:

- O Increased resource and funding to achieve targets, possibly ring-fenced;
- O Tailoring of targets to local strategy, traffic numbers, volumes and the road network (rural or urban) in order to make them realistic;
- O Sanctions to local authorities for non-compliance and an awareness that reduced resource may lead to compliance with statutory obligations only;
- O Short-term fluctuations in KSI statistics and investment in road safety interventions will influence ability to meet interim targets; and
- O The size of the local authority, with small local authorities, with low KSI baseline finding it harder to reduce KSI frequency.

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2.2.85   Just over two thirds of local authority representatives reported barriers which they face in implementing road safety activity. These included:

- Lack of time, resource, funding and expertise, both within local authorities and within external partners, for instance, lack of resource in the police reducing support of roads policing. There was some concern that lack of time, resource, funding and expertise makes long-term projects, staff retention and attraction of experienced and skilled staff difficult;
- Lack of political support, viewing road safety as a priority;
- Public perceptions;
- Lack of interest from other organisations;
- Too much funding emphasis on expensive major schemes, with few long-term benefits;
- Difficulties evidencing the impact of education, engineering and enforcement;
- Difficulty making decisions in road safety partnerships, as organisations do not always want to take responsibility for an action or decision;
- Lack of guidance on the Safe System approach; and
- Lack of support and clear direction for national initiatives from central government, with corresponding lack of training and funding.

2.2.86   Local authority representatives suggested that barriers to implementing road safety activity could be overcome through the following processes:

- Increasing resource and funding for the development and implementation of road safety initiatives, with the suggestion that funding could be non-competitive and ring-fenced, as was the case with Road Safety Grants;
- Improving the awareness and priority given to road safety, with better dissemination of guidance from central government;
- Reviewing driver licensing, introducing graduated driver licensing, re-tests and the removal of the self-certification on fitness to drive;
- Improving understanding and use of data and evidence;
- Increasing support from road safety stakeholders and emergency medical services;
- A review of local authority strategy and delivery;
- Working in line with the Safe System approach;
- Changing public perceptions of road safety, shifting the tacit acceptance of road traffic accidents;
- Having a focus on smaller, more local schemes; and
- Introducing clear targets to allow for appropriate funding allocation.

2.3   Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Target Setting

2.3.1   Many representatives of advisory groups, associations and charities noted that it is difficult to achieve substantial improvements without targets set by government and the associated attention to measurement of performance against targets and evidence base.

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2.3.2   Representatives suggested that by not setting targets the DfT is not taking on its responsibility with regards to road safety. It was suggested that at a wider government level policymaking ideology holds belief in less regulation and the perception of safety regulation as 'red tape' reflected in road safety policymaking.

> *"You could say that without a target government has abrogated its responsibility for leadership. What I think the target enabled everybody to do was pull together in the same direction."*
>
> (Advisory group, association and charity representative)

2.3.3   Reasons given by representatives as to why government should set targets include:

- The loss of national targets has influenced local funding because, without targets to meet, there is no national benchmark in which to form a rationale within local government as to why road safety funding should have more priority than other societal concerns. This lack of national steer therefore allows decision-makers an excuse not to invest;
- Lack of targets means those delivering road safety lose focus – they concentrate on high profile cheap and easy activities that are visible, rather than activities which have the most significant effect on casualties;
- There is a perception by some that KSI targets are needed in order to benchmark England/UK against the rest of the world;
- It is currently unclear why KSIs have risen after consistent years of decline, and some voiced the opinion that the lack of targets may be responsible; and
- A top-down approach of setting targets at a lead agency level concentrates the mind on achieving results and has had positive impacts in other areas, such as fire deaths.

2.3.4   Some stakeholders expressed the view that the delivery bodies responsible for achieving road safety targets should be the ones to decide which activities they need to deliver to achieve the required results.

2.3.5   The contrast in approach between the DfT and HE was discussed by some representatives. Whilst HE set targets and are perceived to promote road safety, DfT were perceived to not do either.

2.3.6   Whilst stakeholders considered that overall responsibility for setting road safety targets should fall within DfT and sit with the Minister for Road Safety, they noted that the MoJ and HO also have a role in the setting of targets.

2.3.7   In addition to a desire for national targets and long term goals to reduce death and serious injury, and for some stakeholders, to prevent death and serious injury, representatives also highlighted some specific other targets which they would like to see, including:

- Country-wide targets for the uptake of Euro NCAP 5-star vehicles;
- A national metric for the safety performance of the network; and
- A target for safety performance of the major road network.

2.3.8   There is also a desire to see safety performance indicators e.g. compliance with 30mph limits and the numbers of people cycling; indicators that roads are safer.

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2.3.9　General priorities for target setting and performance indicators highlighted by representatives include:

- ⭘　Vulnerable road user safety, particularly with note of the ageing population and cyclists, acknowledging the target for increasing cycling uptake;
- ⭘　Distraction issues;
- ⭘　HGV cab design and vision areas; and
- ⭘　Cross modal lessons on fatigue.

Safe System

2.3.10　Whilst many advisory group/charity/association representatives are aware of Safe System, and for some it underpins all activity, it was acknowledged that those outside the road safety profession are not so aware.

2.3.11　Within some areas of the country, notably London, and across different organisations, the term 'Vision Zero' is more prominent than Safe System. For some it does not mean the same thing as Safe System, but is considered to mean zero danger. Other terminology used and preferred by some organisations includes the 'road danger reduction' principle.

2.3.12　Perceived barriers to the successful delivery of Safe System include:

- ⭘　**Financial** – if there were no financial barriers it would be "possible to re-design every road so it was the safest possible design that man knew about" and allocate more resources, such as traffic police;
- ⭘　**Social** – legislation banning certain road user behaviour would assist the Safe System goals, however it would not be socially acceptable, for instance banning the use of motorcycles and banning the use of hands-free devices; and
- ⭘　**Understanding** – there is a lack of common understanding of what Safe System is and what it stands for, including by those responsible for the delivery of road safety; **Awareness** – there are technological advancements which are fundamental applications of Safe System, such as, Electronic Stability Control (ESC) and Autonomous Emergency Breaking (AEB), which are not widely implemented as part of Safe System, due to lack of awareness.

2.3.13　Representatives of advisory groups/charities/associations acknowledged that local authorities face a number of difficulties when looking to adopt Safe System. Challenges that they perceived local authorities to face in implementing Safe System include:

- ⭘　Not fully understanding what Safe System is;
- ⭘　Not having control over all things affecting road safety, within Safe System; and
- ⭘　Funding priorities that are based on the whim of the council and derived opinion, rather than science-based evidence and interventions.

Lead Agency and Safe System

2.3.14　Whilst there was acknowledgement by some representatives that there is a commitment at government level to a Safe System approach, particularly by DfT and Highways England, a number of barriers at lead agency level were identified:

- ⭘　Some perceive DfT as not giving sufficient leadership in guiding and advising local government, including failing to provide them with the tools to implement Safe System. For instance, the design guidance for building a cycle lane has not been updated for 10 years (despite progress in Dutch-style cycle lanes in London);

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- Regulations in The Highway Code are limited in terms of transport mode and have not kept up with the desire for more sustainable transport methods so there are no guidelines on developing road infrastructure which meets the needs of all road users without reducing traffic capacity for motor vehicles;
- Safe System is not perceived to be promoted at a national level because it is a big step away from the past in terms of road design, police response to collisions and court responses; and
- Whilst a commitment to Safe System has been made in the BRSS, no KPIs were identified. KPIs raised of interest include: KSIs of young drivers, KPIs on levels of compliance, and KPIs on how effectiveness of interventions are monitored.

2.3.15 Some representatives suggested that it is more achievable for Highways England to implement Safe System than local authorities, because they have more control over the system. Ways in which Highways England are perceived as adopting Safe System include:

- Basing road safety delivery plans on the Safe System approach, although stakeholders felt this was in early stages;
- The ability to remove a lot of the vulnerable road users from the system e.g. by not allowing animal transport, some motorcycles, learner drivers, bikes or pedestrians on certain road types; and
- Control over speed, velocity and the direction of vehicles. Dual carriageway highways are a solution to reducing head-on collisions, white lines and barriers in the centre of the road also reduce head on collisions, which is another aspect of Safe System that Highways England can implement easier than local authorities because *"they have the legal position, authority and money"*.

2.3.16 It was noted by some representatives of advisory groups/charities/associations that government does not have the sole capacity or responsibility to deliver Safe System because successful implementation is a shared responsibility across all areas of industry and all organisations involved (both public and private sector). Despite this, it was still considered the responsibility of government to lead and encourage Safe System and facilitate implementation.

2.4 Business and Industry

Stakeholder Interview Findings

Target Setting

2.4.1 Representatives from business and industry membership organisations do not set targets for their members. There is an expectation that members set their own internal targets, or look to achieve government-led targets, and that assistance in meeting these targets is offered through professional support. Some organisations set targets for the take up of EuroNCAP 5* cars in rental policies.

> *"We are just a training organisation, accommodating best practice, it's not about goals or targets, we are trying to change hearts and minds around best practice."*
>
> (Business and industry representative)

2.4.2 Barriers identified by business and industry representatives to setting targets for their members to meet include:

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- Whilst membership organisations can help to ensure that members are aware of what 'good' looks like, it does not mean they are able to deliver 'good' because other priorities may get in the way; and
- Sometimes the most effective intervention is not always completed or considered, by members, for a number of reasons, e.g. local authority members may struggle with conflicting political priorities.

Lead Agency: Target Setting

2.4.3   Business and industry representatives raised some concerns regarding government led targets. These include:

- KSI targets could detract from wider road safety impacts, and this may prevent wider action; and
- Metrics used to measure targets are not necessarily a true reflection of what they are measuring, which can make achievement of targets misleading.

Safe System

2.4.4   There were mixed levels of awareness of Safe System, with some having no awareness at all.

> *"If that [Safe System] is something that is being broadcast from safety media it is not getting to us."*
>
> (Business and industry representative)

2.4.5   Of those representatives not aware, once explained to them, many felt that they followed the principles of the Safe System approach and were supportive of any approach that improves road safety and leads to a reduction in KSIs.

2.4.6   Two stakeholders showed an awareness of 'Vision Zero'.

2.4.7   Some business and industry representatives suggested that awareness of Safe System in local authorities is low, with authorities having more significant political pressures on budget and resources.

Lead Agency: Safe System

2.4.8   Some business and industry representatives felt that Safe System is promoted, to an extent, within Highways England, however this is limited to some areas of Highways England and does not appear to be discussed by project managers and designers. Additionally, they commented that whilst leadership and commitment is being shown by Highways England, the majority of KSIs do not occur on roads they are responsible for.

2.4.9   Additionally, some business and industry representatives felt that the safety of Highways England networks and local networks is inconsistent, in terms of Safe System, and this should not be the case, given that users travel across the different networks, without the knowledge that they are transferring from one to the other.

2.4.10   At government level, some representatives argued that the role of road safety in public health must be recognised as KSIs have a significant impact on health and social care provision. One representative noted that 'road safety', within a public health remit,

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should acknowledged all the different uses of the road, for example, monitoring, in urban areas, the number of people who slip, trip and fall on inadequate pavements. There was a perception that whilst local authorities have a public health remit, it will require a fundamental shift in approach for road safety to be considered within this remit.

"Government should recognise that the highways network has a key role in public health, full stop…I'm not sure that it is seen as that…when we look at the words we use, 'road safety' continues to promote a way of thinking about the issue, actually we should talk about 'public health on local highway networks'."

(Business and industry representative)

Fleet Company Survey Findings

2.4.11   Seventeen fleet managers responded to questions on results focus in the online survey. (Note: these findings are also relevant to the Institutional Management Function 'Safe Work Travel'). Of 17 fleet managers:

Responsibility for road safety

○   15 agreed/strongly agreed that their organisation has a clear focal point with responsibility for road safety, 2 disagreed.

Road Safety Priority/Strategy

○   14 agreed /strongly agreed that the top management of their organisation takes an active interest in road safety, 3 disagreed/strongly disagreed; and

○   13 agreed/strongly agreed that road safety is a key policy area for their organisation, 4 disagreed.

British Road Safety Statement

○   11 agreed/strongly agreed that their organisation tailors road safety activity in response to the British Road Safety Statement, 3 disagreed and 3 did not know.

Safe System Approach

○   10 agreed/strongly agreed that their organisation is adopting the Safe System goal and strategy, whilst 3 disagreed and 3 did not know.

National Targets

○   15 agreed/strongly agreed that a long-term national goal for the prevention of people killed and seriously injured on the roads would benefit road safety activity and priority in their organisation, 1 did not agree and 1 did not know; and

○   12 agreed/strongly agreed that interim targets would benefit road safety activity and prioritisation in their organisations, 3 did not agree and 1 did not know.

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Road Haulage Company Survey Findings

2.4.12   Four road haulage managers responded to questions on results focus in the online survey. (These findings are also relevant to the Institutional Management Function 'Safe Work Travel'). Of the four road haulage managers:

Responsibility for road safety

◎   All 4 respondents agreed that their organisations had a clear focal point with responsibility for road safety.

Road Safety Priority/Strategy

◎   All 4 agreed/strongly agreed that top management takes an active interest in road safety; and
◎   3 agreed that road safety is a key policy area in their organisation, with 1 did not.

British Road Safety Statement

◎   2 disagreed/strongly disagreed that road safety activity in their organisation was tailored in response to the British Road Safety Statement, whilst 2 did not know.

Safe System Approach

◎   2 agreed that the Safe System goal and strategy was being adopted by their organisation; 1 did not agree and 1 did not know.

National Targets

◎   3 agreed/strongly agreed that a national long-term goal for the prevention of KSI's would benefit road safety activity and priority in their organisation, 1 did not know; and
◎   1 agreed that interim national targets for reducing KSI's would benefit road safety activity and priority in their organisation, 2 disagreed and 1 did not know.

2.5   Emergency Services

Stakeholder Interview Findings

Priorities

2.5.1   Whilst the key road safety priority of the ambulance and fire service is post-crash care, and for the police it is enforcement, education of safe road use and safe speeds is also high on the agenda of all three services. Many services work in partnership with each other, local authorities and charitable organisations to devise and deliver education and training to change driver and pedestrian behaviour, and in some areas this is specifically part of an action plan to tackle local KSI reduction targets. Sometimes education and training is prioritised to tackle specific road user groups (e.g. young drivers, elderly drivers, pedestrians, two wheeled road users) or specific issues (e.g. rural roads).

2.5.2   Emergency services also work with local authorities to:

◎   Advise on new engineering proposals relating to safe roads and roadsides; and
◎   To refine data packages and business processes to improve efficiency of reporting RTAs to county councils.

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Target setting

2.5.3   Emergency services are used to operating with response time targets. In the ambulance service these are related to clinical needs rather than type of incident (e.g. road accidents), and they are set by Department of Health.

2.5.4   Some fire services set targets relating to the number of schools in which they will deliver road safety education. Other fire services work towards KSI targets for road traffic accidents, set by the County Council.

2.5.5   Police and Road Safety Strategic Partnerships currently set their own KSI targets in some areas, and this is set alongside the roles of different partners within the groups and action plans. The police consider there is a need for a clearer, more results-focused approach to road safety with a safety performance framework. At present, it is considered that each police force has different priorities.

2.5.6   Emergency services personnel consulted indicated that the setting of national targets for KSIs would benefit outcomes.

Safe system

2.5.7   There was little awareness of the British Road Safety Statement (2015) or of the Safe System approach, or its promotion, within the ambulance, fire and police services consulted, at both national and local levels. However once explained, emergency services commented that Safe System was integral to their operation, even if it is not recognised under this name. An example is interactions of the fire service with county council colleagues that look at engineering solutions for accident hotspots. However, all emergency services also consider education, for instance, road safety awareness training and driving offender retraining, as integral to the overall approach of achieving safe roads.

2.5.8   Barriers to the implementation of the Safe System approach include lack of time and resource; and lack of influence over safe road use and safe vehicles, despite work with partners on these interventions. In order to overcome these barriers and help further embed the Safe System approach, the following solutions were suggested:

   ⭕   An investment in dedicated resources to allow time for the promotion of the approach; and
   ⭕   A national directive outlining the implementation of road risk initiatives.

Police Force Survey Findings

2.5.9   Twelve police force representatives (from different police forces) responded to questions on results focus in the online survey.

Responsibility for road safety

2.5.10   Police force representatives identified the responsibility for road safety as being within the following units/roles, within their police force:

   ⭕   Uniformed Policing Units, such as Roads Policing and Specialist Operations Units;
   ⭕   Superintendent;
   ⭕   Assistant Chief Commissioner;
   ⭕   Police and Crime Commissioner (PCC) and strategic lead;

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- Inspectors, specialising in roads; and
- Casualty Reduction Officers.

2.5.11 One police force representative suggested that responsibility for road safety was also given to organisations external to the police, such as Highways Authorities.

2.5.12 Asked whether *'there is a clear focal point with responsibility for road safety at officer level'* in their police force:

- 5 totally agreed;
- 5 mostly agreed; and
- 2 partially agreed.

2.5.13 Of those who totally agreed, a few police force representatives suggested that responsibility for road safety was given to a dedicated road policing team, including road safety and education officers. those who mostly agreed, showed some concern that those responsible for road safety also had other competing responsibilities. Additionally, one representative suggested that focal points for road safety were less clear in collaborative police forces, where there are multiple PCC offices and partnerships involved.

Road Safety Priority/Strategy

2.5.14 Police force representatives reported many different priorities for road safety intervention within their force. These were:

- KSI reduction and investigation;
- Enforcement (pursue, prevent, prepare, protect) of the Fatal 5: Speed, anti-social behaviour and inappropriate and inconsiderate driving, drink and drug driving, seat belt use and misuse of mobile phones, using police and community resource; and
- Safeguarding vulnerable people, for instance, through road safety education for younger and older drivers.

2.5.15 Police force representatives reported many different methods for identifying priorities for road safety intervention in their forces. These were:

- Police and Crime Commissioner (PCC) and force strategy;
- Analysis of collision data, with some police forces specifying KSI statistics, to identify threat, harm and risk to road users, with the suggestion from one force that this was to be improved;
- Partnership strategy, with one representative showing concern for the lack of strategic working across road safety partners to determine local priorities;
- Resource;
- Partnership education, enforcement, engineering and encouragement (EEEE) activity;
- National Police Chiefs Council (NPCC), European Traffic Police Network (TIPSOL) and National Roads Policing Intelligence Forum (NRPIF) Calendars; and
- Public concern.

2.5.16 Asked about whether *'road safety is a key enforcement area'* in their force:

- 4 totally agreed;
- 2 mostly agreed;
- 5 partially agreed; and

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- **O** 1 disagreed.

2.5.17 Of those who did not totally or mostly consider road safety a key enforcement area, road safety was enforced by roads policing units and specialist constables. There was some concern that reductions in roads policing resource, and competing priorities, had made enforcement of roads safety challenging.

2.5.18 Levels of reported agreement with the statement that *'there is a clear strategic plan to reduce road deaths through enforcement'* were:

- **O** 4 totally agreed;
- **O** 1 mostly agreed;
- **O** 6 partially agreed; and
- **O** 1 disagreed.

2.5.19 Plans were seen to be based on PCC strategy, the THINK campaign, TIPSOL and NRPIF calendars, and crime reduction plans.

2.5.20 Asked whether *'road traffic enforcement is seen as a means of tackling criminal activity'* in their force:

- **O** 3 totally agreed;
- **O** 3 mostly agree; and
- **O** 6 partially agreed.

2.5.21 One representative who partially agreed suggested that such activity was sporadic, and another suggested that resource restrictions within Highways and Transport units have led to a prioritisation in KSI reduction over the tackling of general criminal activity on the roads.

2.5.22 In response to the statement *'enforcement of Road Traffic Offences inform tactical patrol plans for Roads Policing Officers'*:

- **O** 4 totally agreed;
- **O** 2 mostly agreed;
- **O** 5 partially agreed; and
- **O** 1 disagreed.

2.5.23 As to whether '*enforcement of Road Traffic Offences inform tactical patrol plans for Local Policing Officers*' in their force:

- **O** 3 partially agreed;
- **O** 7 disagreed; and
- **O** 2 did not know.

2.5.24 It was noted that enforcement of Road Traffic Offences mainly informed the tactical patrol plans for special constabulary and was not a local policing priority.

2.5.25 Asked whether *'there is a strategy for addressing KSIs'* in their force:

- **O** 6 totally agreed;
- **O** 3 partially agreed;
- **O** 2 disagreed; and
- **O** 1 did not know.

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2.5.26   Police strategies often supported strategies of local county councils, road safety partnerships and PCC. One representative reported that their police force was currently reviewing their road safety strategy.

2.5.27   Asked whether *'there are safety performance indicators which have a direct relationship to KSI prevention/reduction'*:

- ○   1   totally agreed;
- ○   5   partially agreed;
- ○   3   disagreed; and
- ○   3   did not know.

2.5.28   One representative suggested that such safety performance indicators, within the police, corresponded to county council safety performance indicators. Additionally, 3 respondents reported that safety performance indicators, causally related to KSIs, are not present in their police force, with 1 suggesting that performance indicators were replaced by a qualitative framework. There was some concern that indicators were monitored but needed to be better managed.

2.5.29   Asked whether *'safety performance indicators causally related to KSIs are monitored'*:

- ○   2   totally agreed;
- ○   4   partially agreed;
- ○   3   disagreed; and
- ○   3   did not know.

2.5.30   There was some concern that indicators were monitored but needed to be better managed.

2.5.31   Asked whether '*there is a long-term goal for preventing KSIs within this police force'*:

- ○   6   totally agreed;
- ○   1   mostly agreed;
- ○   3   partially agreed;
- ○   1   disagreed; and
- ○   1   did not know.

2.5.32   One representative explained that long term goals and targets were underpinned by PCC strategy and another suggested that their strategy was currently being re-written to accommodate long-term objectives.

2.5.33   Similarly, police force representatives commonly reported that, '*there are interim goals and targets for preventing KSIs within this police force'*:

- ○   4   totally agreed;
- ○   2   mostly agreed;
- ○   3   partially agreed;
- ○   2   disagreed; and
- ○   1   did not know.

2.5.34   There was some disagreement on the value of targets, with one representative suggesting that their force did not have a targets culture and another suggesting that their strategy was currently being re-written to accommodate interim objectives. There was some

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concern for the possible level of commitment to interim targets, especially with current resource levels.

2.5.35   Asked whether: *'the police force is formally held to account for their road safety performance'*:

- ○   4   totally agreed;
- ○   3   mostly agreed;
- ○   1   partially agreed;
- ○   3   disagreed; and
- ○   1   did not know.

2.5.36   Reported accountability practices included scrutiny by the PCC and governance board.

2.5.37   Differing levels of agreement with the statement '*Road safety is a priority shared across the police force'* were reported:

- ○   2   totally agreed;
- ○   0   mostly agreed;
- ○   5   partially agreed;
- ○   4   disagreed; and
- ○   1   did not know.

2.5.38   Of those who did suggest that road safety was a shared priority, it was mainly seen to be shared in a road policing capacity and undertaken by Road Policing Officers, PCSOs and Special Constables.

2.5.39   Asked whether *'road safety is solely owned by roads policing officers'*:

- ○   1   totally agreed;
- ○   7   mostly agreed;
- ○   1   partially agreed; and
- ○   3   disagreed.

2.5.40   Road safety was also seen to be owned by partner agencies, PCSOs and Special Constables. One representative suggested that limited capacity within road policing units meant that road safety was only dealt with through the management of fatal and serious road collisions.

British Road Safety Statement

2.5.41   Eight of the twelve police force representatives reported that they were not at all aware of the British Road Safety Statement (2015) (BRSS) prior to the survey, with the remainder only moderately or somewhat aware. Of those who were aware, one suggested that their forces road safety activity was mostly tailored to the BRSS and two suggested that it was partially tailored to it, and one said it was not at all tailored to the BRSS.

Safe System Approach

2.5.42   Seven of the twelve police force representatives reported that they were not at all aware of the Safe System approach. Of those who were aware, only one described themselves as extremely aware, the others said they were slightly or moderately aware.

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2.5.43   Asked (of the 5 who were aware of Safe System), whether, *'the Safe System goal and strategy is being adopted by our police force'*, responses were:

- 1   totally agreed;
- 1   mostly agreed;
- 2   partially agreed; and
- 1   did not know.

2.5.44   Similarly, asked (of the 5 who were aware of Safe System), whether *'there are processes in place locally to ensure awareness and understanding of the Safe System approach':*

- 1   mostly agreed;
- 3   partially agreed; and
- 1   disagreed.

2.5.45   Asked (of the 5 who were aware of Safe System), whether *'there are processes in place nationally to ensure awareness and understanding of the Safe System approach'* respondents answered:

- 2   mostly agreed;
- 2   partially agreed; and
- 1   did not know.

2.5.46   Police force representatives who were aware of the Safe System approach reported the following barriers for its implementation:

- Lack of understanding and direction from senior management;
- Lack of awareness in general;
- Competing priorities;
- Insufficient focus, within the approach, on police accountability in road safety;
- Lack of ring-fenced funding to support implementation and delivery;
- Difficulties with strategic coordination, especially for collaborated police services, who have multiple road safety teams, partnerships and PCC's; and
- Lack of national imperative.

2.5.47   Police force representatives, who were aware of the Safe System approach reported the following would help embed/further embed Safe System, within their police force:

- Improved understanding of the polices' role in Safe System delivery, with guidance provided to multi-agencies. This could be in video or PowerPoint format;
- Home Office endorsement;
- Her Majesty's Inspectorate of Constabulary scrutiny of the approach;
- Increased PCC awareness;
- Ring-fenced investment into Roads Policing;
- Full integration and collaboration by collaborated police services and partnerships, with alignment in Safe System priority across all forces; and
- Development of national analytical capability.

National Targets

2.5.48   All 12 respondents agreed with the statement *'a national long-term goal for prevention of KSI would benefit road safety activity and priority in my police force',* 8 of whom strongly agreed.

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2.5.49   Asked whether they agreed with the statement, *'interim national numerical targets for reducing KSI would benefit road safety activity and prioritisation in my police force'*:

- 4   strongly agreed;
- 5   agreed;
- 2   disagreed; and
- 1   strongly disagreed.

2.5.50   Of those who reported agreement with the statement, 1 representative suggested that interim national targets for reducing KSI would encourage proactive working. There was some concern from representatives that national interim targets for KSI reduction would be ineffective because:

- They would be impossible to achieve in the current resource environment;
- Causes of KSI are different in different locations; and
- They would introduce conflicts in with other policing priorities.

Barriers to achieving road safety results

2.5.51   Police representatives reported a number of barriers in implementing road safety activity in their forces. These were:

- Competing policing demand and priority, meaning roads policing staff are frequently deployed in other areas and other areas are often prioritised over roads policing, for instance, cyber-crime, terrorism, adult and child abuse, vulnerability and fraud;
- Lack of time, resource and funding due to competing priorities;
- Conflict between PCC and public expectations;
- Lack of investment by partners;
- Lack of support from senior management; and
- Lack of national lead or direction.

2.5.52   Police force representatives suggested that barriers to implementing road safety activity could be overcome through the following processes:

- Increasing resource and funding, possibly ring-fenced, for road policing and road safety partnerships. One representative suggesting that more freedom should be provided over the retention of traffic offence penalty charges and diversionary courses, in order to directly fund roads policing and partnership activity;
- Increasing the priority given to roads policing, with recognition of the importance of safe roads and casualty reduction;
- Acknowledgement of common goals and statutory responsibilities with road safety partners in other organisations;
- The creation of a voluntary enforcement authority, like PCSOs; and
- Clear requirements set out for police responsibility in road safety, with the introduction of key performance indicators, audits and inspection. One representative suggested that compliance could be monitored by the Home Office through Her Majesty's Inspectorate of Constabulary scrutiny.

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2.6　Academic Institutions

Stakeholder Interview Findings

Priorities and targets

2.6.1　There was concern amongst representatives that whilst the British Road Safety Statement is 'not terrible' it is not what many expected as it is not a new strategy and is therefore limited in scope regarding intervention.　In particular there is no follow-through with specified, targeted action.

2.6.2　There was some concern amongst academic representatives that alongside the change in approach away from goal and target-setting and delivery frameworks and towards localism, the UK has not engaged, despite 'signing up' to global SDGs and EU fatality targets and long-term goals, and UK KSIs are on the rise.　It was recognised by some, however, that in addition to lack of targets and reduced funding, the plateauing or rise of KSIs may in part be as a result of changes in demographics and GDP, and reduced resources leading to reduced delivery capacity at national and local levels.　There is also concern that there is lack of DfT capacity in road safety in addition to a lack of ministerial support and leadership.

2.6.3　There is an overarching view amongst academics that goal and target setting and KPIs are integral to successful outcomes for road safety, at a national and local level, and that the DfT should follow organisations such as Highways England, TfL, devolved administrations and some (albeit few) local authorities in setting KSI reduction targets.　Most believe that a long-term aspiration goal for the ultimate prevention of death and serious injury is needed, though a few reject the Vision Zero concept as they consider that it is unobtainable.　Some consider that the term Towards Zero is more acceptable than Vision Zero.

2.6.4　Some felt that results would be better achieved under a number circumstances, including:

- If targets are supported by comprehensive safety performance framework with a timeframe and indicators to provide a focus and unifying element in road safety practice, and evidence-based activity to manage compliance with speed, seat belt use, helmet use, reduce distraction, 5* Euro NCAP, 4 and 5 * Euro iRAP;
- With more synthesis of current information to assist in prioritisation, i.e. pointing to where next gains can be made;
- With merging of districts to get better economies of scale for road safety delivery;
- With a U-turn to the current lack of focus on speed management;
- With more focus on accident prevention by addressing inherent risks in the system;
- If priorities were set by considering behaviours that need to be better addressed, for example speeding, mobile phone use, and distracted driving;
- If targets were set in line with the Safe System approach, but keeping them simple;
- If targets were set at a national level, but also broken down by region to allow problem/risk areas to be highlighted; and
- If specific targets existed for driving to work – which they identified as a problem area in road safety.

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Safe System

2.6.5   Many academics considered Safe System to be an aspirational long-term goal for UK road safety policy but one that is not currently adopted. They feel that there is little evidence of both understanding of or implementation of Safe System particularly at a local level.

2.6.6   Whilst there is some support for the overarching aims of Safe System, and the need to look at the bigger picture rather than things in isolation, there is also concern that:

-    There is a lack of understanding of Safe System because it is a complicated set of systems that make up the whole strategy;
-    Different interpretations of Safe System are being applied;
-    Some professionals do not understand the evidence base for Safe System;
-    There is a lack of capacity in local authorities to access and address the Safe System approach; and
-    It is too complicated to adopt because it is too big with too many people involved: government bodies, regulators, individuals, transport planners, NGOs, parents, vehicle manufacturers, etc.

2.6.7   Some considered that Safe System is broad and includes compliance with safety legislation and user standards, and that the behavioural side relating to direct approaches with users is the least well-evidenced element of road safety. They suggested a simpler approach; rather than tackle Safe System as a whole, with all stakeholders, work should be undertaken with those who have a specific impact on that particular system e.g. work with police, individuals and vehicle manufacturers to tackle mobile phone use (i.e. ensure phones are switched off as soon as a car moves). This neglects some specific but very important influences, e.g. we need to better educate parents about the dangers of lone driving after passing your driving test, and we need to better educate fleet managers of SMEs.

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3. INSTITUTIONAL MANAGEMENT FUNCTION: COORDINATION

3.1 Central Government Departments/Agencies

Stakeholder Interview Findings

Coordination within DfT, and between DfT and Agencies

3.1.1 The Road User Licensing, Insurance and Safety division (RULIS) provide the internal coordination around the British Road Safety Statement (BRSS), meeting every two months. Coordination between most, but not all, DfT divisions and RULIS is considered to be good by DfT representatives. However, coordination between different sections within RULIS sections is considered less good, with more engagement considered required, and there is a desire for this to improve.

3.1.2 The primary function of the Road Safety Delivery Group (RSDG) is to deliver on the BRSS, reflecting different legislative competences, but its remit is wider than this in terms of information and knowledge sharing within DfT and its agencies. There was some concern raised that whilst the RSDG is a good tool for knowledge sharing, it does not perform as a delivery partnership in terms of decision making.

3.1.3 More recent coordination and project collaborations on road safety issues have occurred between DfT and the Driver Vehicle Standards Agency (DVSA), who are represented on the Road Safety Delivery Group. The DVSA also participates in the Motorists Forum for updates on industry occurrences. There is considered to be good coordination between DVSA and RULIS and between DVSA and Highways England (HE).

3.1.4 The relationship between DfT and Highways England (HE) is considered good, with HE represented on the Road Safety Delivery Group. However, there was some desire expressed for more HE involvement on specific road safety issues, for instance, trailer safety issues and speed management.

Interdepartmental Coordination

3.1.5 There are no formal channels or forums through which different government departments engage with each other on road safety. Rather, engagement is reported to occur on a topic by topic basis, when considered necessary, and to address specific issues set out in the BRSS. However, such interdepartmental engagement is not consistent, and an example cited of where it did not take place was removal of road humps in an air quality policy statement, added without DfT consultation.

3.1.6 The Home Office (HO) was referenced multiple times as being a key department which the DfT should engage with about road safety issues, but this process was cited as being difficult, with the Home Office proving difficult to engage with, except on a few policy areas such as mobile phone use and on the national crash injury reporting system. Contact between DfT and HO is on a case-by-case basis, and the HO has contact with DfT PLO on policing matters or policy officials on policy matters. The HO are not members of the RSDG. Coordination between the DfT and the police comes mainly via the National Police Chief's Council; there were mixed views on police cooperation within the DfT.

3.1.7 Various members of the DfT expressed a desire for road safety to be on the interdepartmental agenda and cited interdepartmental coordination as a key area for

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improvement. In addition to the Home Office, there is also a desire for closer coordination between the DfT and the Ministry of Justice (MoJ), Department of Health (DoH) and Department for Education (DfE) relating to road safety.

Coordination between DfT/Agencies and Local Authorities

3.1.8 The Road Safety Delivery Board is a forum of the partners who deliver road safety on the ground (the police, local authorities, Highways England, the fire and rescue service, DVSA and devolved administrations), hosted by the DfT. The objective of the Board is to identify and share best practice, and identify and tackle obstacles to delivery. It acts as the key method of engagement with Local Authorities (LAs), and there are mixed views of how successful it is, with some desire expressed for more partnerships to be formed at local levels.

3.1.9 Some DfT and agency stakeholders expressed the view that the lack of a national safety performance framework makes coordination with Local Authorities (LAs) more challenging.

3.1.10 However, the Safer Roads Fund is considered an important factor in improving engagement with LAs, in addition to putting a focus on internal DfT engagement.

Other Coordination

3.1.11 DfT representatives consider that HE coordinates with each of its seven regions through Regional Road Safety Coordinators, and they assist regions in meeting targets and developing action plans.

3.2 Local Government

Stakeholder Interview Findings

Road Safety Partnerships

3.2.1 Many County Councils manage Road Safety Partnerships, coordinating different bodies that may include: police force; fire and rescue; hospitals; trauma centres; HE; Public Health England (PHE); victim associations; and park authorities. Local Government stakeholders noted that police forces are increasingly managing safety camera partnerships.

3.2.2 Despite these partnerships, there is a desire from some councils for more coordination between councils and the emergency services, who note that road safety is not always considered a priority for the emergency services, or the funding is not available for road safety enforcement.

3.2.3 Whilst partnerships exist at a local authority level, there appears to be little or no coordination between the different local authorities.

Regional Coordination

3.2.4 Local Authorities consulted view the Highways England Regional Coordinators positively and indicated that they offer them constructive support. However, they acknowledged some problems between the local and strategic road network.

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Road Safety Officer Survey Findings

3.2.5   Thirty one RSOs responded to questions on coordination in the online survey.

3.2.6   RSOs indicated that responsibility for road safety activity in their local authorities is either given to an individual road safety team or is dispersed between different departments. In the latter case, road safety is dispersed between a combination of road safety teams, highways, public health, engineers and school crossing patrol teams. Dispersed road safety activity is often coordinated through regular interdepartmental meetings and communication.   The success of this coordination depends upon the quality of interdepartmental relationships, with many local authorities suggesting that these relationships are good. Additionally, within some local authorities, RSOs explained that road safety activity is governed by a coordinating body, such as a road safety partnership or casualty reduction forum. These coordination practices allow for the sharing of programmes, resources (such as road safety audits, reports), ideas and priorities. Priorities are often based on internal reporting, areas of deprivation, collision data and local concern.

3.2.7   Asked about linkages with central government agencies and regional partnerships on road safety, some RSOs cited linkages with DfT and Highways England.   However, they recognised that these linkages are limited, with many declaring very little or no direct contact with central government agencies. Regional linkages are more common, with many RSOs citing links with:

- Regional road safety and casualty reduction councils and partnerships, such as safety camera partnerships and regional collision reduction forums;
- Regional Transport Executives;
- Other RSOs and county councils; and
- Emergency services, most notably the fire and rescue and the police services.

3.2.8   Linkages with road safety agencies, associations and charities were also cited, including:

- Road Safety GB;
- Road Safety Scotland;
- RoSPA;
- Child Accident Prevention Trust;
- TISPOL;
- BRAKE; and
- IAM Road Smart.

3.2.9   All RSOs agreed somewhat with the statement '*road safety activity is well coordinated and communicated within the local authority*'. Specifically:

- 6   totally agreed;
- 18   mostly agreed; and
- 7   partially agreed.

3.2.10   Reasons cited for poorer coordination were difficult partnership working with emergency services, staff changes and the independent nature of some local authority audits.

3.2.11   Asked about the statement *'the authority works with other organisations locally to achieve road safety results'*:

- 10   totally agreed;

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- ○ 15 mostly agreed; and
- ○ 6 partially agreed.

3.2.12 RSOs generally reported that their local authorities work with national networks/ organisations to achieve road safety results. Specifically:

- ○ 4 totally agreed;
- ○ 14 mostly agreed;
- ○ 11 partially agreed; and
- ○ 2 disagreed.

3.2.13 The most commonly cited linkage with national networks and organisations was with Road Safety GB. Additionally, one local authority noted difficulties with working with national networks and organisations, specifically the delivery of good and timely data from the police.

3.2.14 Asked about the statement *'road safety in the authority is being aligned with other governmental policies and Sustainable Development Goals to achieve co-benefits and build business cases'*:

- ○ 4 totally agreed;
- ○ 9 mostly agreed;
- ○ 12 partially agreed;
- ○ 4 disagreed; and
- ○ 2 did not know.

3.2.15 The most commonly reported alignments were with public health and active and sustainable travel, with one RSO citing the importance of air quality. Reasons for partial alignment were resource effort required to make links and develop common themes and lack of consideration for road safety by other local authority departments.

3.2.16 Formal road safety partnerships were only present in around half (58%) of local authorities who took part in the RSO survey. Reasons for not having a formal road safety partnership were:

- ○ Having a more general community safety partnership instead;
- ○ Being a small local authority; and
- ○ Lack of funding.

3.2.17 Many RSOs suggested that joint working could be strengthened, on a national and local basis, through the introduction of coordination bodies. Suggested bodies were:

- ○ Regional; managed by Highways England or DfT, with communication linkages between local authority road safety, education and engineering, the police service, the fire and rescue service, the NHS, industry and communication with the Association of Directors of Environment, Economy, Planning and Transport (ADEPT);
- ○ Road Safety Beacon Councils; and
- ○ Already formed road safety partnerships, with some RSOs suggesting each local authority should form one, with linkages to active travel and road engineers seen as important.

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3.2.18   Additionally, RSOs suggested that joint working could be strengthened through the following processes, some of which would be possible through the establishment of a coordinating body:

- The setting of joint targets;
- The sharing of policies and strategy, with clear guidance on roles and responsibilities;
- The strategic allocation of funding to road safety activities;
- The dissemination of road safety best practice and guidance to partner organisations from a coordination body;
- The encouragement of coordination between local authorities and emergency services;
- Transparent communication;
- Promotion of evidence-based research; and
- Better communication between DfT and local authorities.

3.2.19   A number of RSOs also cited the importance of professional training, suggesting it should be recognised as essential when employing and appropriately funded.

3.2.20   Other organisations that RSOs reported working with include:

- Local Highway Authorities;
- Schools and academic Institutions;
- Her Majesty's Naval Service;
- Car manufacturers;
- Transport consultancies;
- Industry associations, including insurance companies; and
- Driving and cycle instructors.

Local Authority Survey Findings

3.2.21   Twenty four local authority representatives responded to questions on coordination in the online survey. Respondents reported working with the following organisations:

- Central government departments, such as the Department for Transport (DfT), DVSA and Highways England;
- Neighbouring County Councils;
- Regionalised transport agencies, such as Transport for London (TfL) and Transport for Greater Manchester (TfGM);
- Local Highway Authorities;
- National Road Safety Organisations, such as Road Safety GB, RoSPA, IAM and BRAKE;
- Regional Road Safety Partnerships;
- Community groups, including community speed watch groups and voluntary emergency services;
- Schools and academic Institutions;
- The police service;
- The fire and rescue service;
- The National Health Service (NHS) including trauma centres and Ambulance Services;
- Royal Air Force;
- Transport consultancies;
- Industry associations and companies;

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- ○ Driving and cycle Instructors;
- ○ Local businesses; and
- ○ Bike scheme providers.

3.2.22 The local authority survey responses indicated that the responsibility for road safety activity in local authorities is either given to an individual road safety team or is dispersed between different departments. In the latter case, road safety is dispersed between a combination of road safety teams, highways, traffic and transport, public health, sustainable travel, engineers, education and contract and programmes management teams. Dispersed road safety activity is often coordinated through regular interdepartmental meetings and communication. It was reported by local authority representatives that the success of this coordination depends upon the quality of interdepartmental relationships, with many local authorities having appropriate management and departmental structures to support these.

3.2.23 Additionally, within some local authorities, respondents explained that road safety activity is governed by a coordinating body, such as a road safety partnership. These coordination practices allow for the sharing of strategies and policies, with external road safety partners such as the police service, fire and rescue service, ambulance service, neighbouring authorities, schools and academic institutions, trading standards and safety camera operators.

3.2.24 Asked about linkages with central government agencies and regional partnerships on road safety, some local authority representatives cited linkages with DfT. However, it was broadly recognised that these linkages are limited, with many declaring linkages in terms of funding, such as the Safer Roads Fund. Regional linkages are more common, with many local authority representatives citing links with:

- ○ Regional road safety and casualty reduction councils and partnerships, such as safety camera partnerships and regional collision reduction forums, usually including a regional HE representative;
- ○ Regional engineering groups and partnerships;
- ○ Regional Road Safety GB forums, with links to DfT;
- ○ The Association of Directors of Environment, Economy, Planning and Transport (ADEPT);
- ○ Regional Transport Executives, such as TfL; and
- ○ Other/neighbouring county councils.

3.2.25 Local authority representatives were generally positive in response to the statement that *'road safety activity is well coordinated and communicated within the local authority'*:

- ○ 6 totally agreed;
- ○ 14 mostly agreed; and
- ○ 4 partially agreed.

3.2.26 Many local authorities suggested that coordination was continually being developed, with one respondent suggesting that a road safety interventions package was being developed in order to clearly outline colleagues responsibilities and projects. Barriers to coordination cited were:

- ○ Lack of staff resource;
- ○ Poor communication with partners;
- ○ Diverging approaches to road safety between partners; and

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- Silo working, with partners attempting activities alone and not reporting back on this.

3.2.27 Levels of reported agreement with the statement *'the authority works with other organisations locally to achieve road safety results'* were:

- 9 totally agreed;
- 10 mostly agreed; and
- 5 partially agreed.

3.2.28 Many local authority representatives indicated the importance of local partnerships between local authorities, district councils, the police service, the fire and rescue service, Public Health, local communities and businesses, industry associations and companies and schools.

3.2.29 Asked about the statement *'the authority works with national networks/organisations to achieve road safety results'*:

- 3 totally agreed;
- 11 mostly agreed;
- 8 partially agreed; and
- 2 disagreed.

3.2.30 Cited linkages national include links to Road Safety GB, RoSPA, ADEPT, Road Safety Foundation, PACTS, HE, DfT, and Military and road user associations such as motorcycle safety groups. Two local authority representatives reported that their local authority had no national network/organisation links.

3.2.31 Local authority representatives reported differing levels of agreement with the statement *'road safety in the authority is being aligned with other governmental policies and Sustainable Development Goals to achieve co-benefits and build business'*:

- 1 totally agreed;
- 11 mostly agreed;
- 8 partially agreed;
- 3 disagreed; and
- 1 did not know.

3.2.32 The most commonly reported alignments were with public health, active and sustainable travel and occupational health and safety. Many respondents suggested that such alignments were currently being established.

3.2.33 The local authority representatives indicated that formal road safety partnerships were present in three quarters of local authorities. One respondent suggested that an informal partnership existed in their local authority and another had some concern for the effectiveness of road safety partnerships, citing a lack of training and ambition as causes of this concern.

3.2.34 Local authority representatives suggested that joint working could be strengthened, on a national and local basis, through the following processes:

- The sharing of best practice through networking events and guest representatives at road safety partnership meetings;
- The allocation of funding to incentivise regional working;

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- The clarification of local roles and priorities, with the provision of clear advice and guidance;
- A focus on what is being achieved and why;
- Leadership and facilitation by an external body, such as DfT, HE, RSS, an independent leader or a road safety partnership. However, there was some concern that road safety partnerships are not always effective;
- The implementation of national targets; and
- Better data sharing locally, for instance, the sharing of TARN data.

3.2.35 A number of respondents noted that local and regional joint working seems to be effective, however, there was some disparity in views on national joint working, with some reporting that national joint working is less clear than local and regional joint working.

3.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Coordination between Advisory Groups, Associations and Charities

3.3.1 There appears to be a lot of interaction, including informal partnerships, between different organisations that have a road safety remit. However, there were concerns that the informal nature of partnerships may mean that they have a limited life-span as they rely on individual relationships.

3.3.2 Coordination is considered particularly key by organisations with similar remits when approaching government, to ensure that a consistent message is presented.

Coordination with Government

3.3.3 Organisations that are represented on the Road Safety Delivery Group (RSDG) felt that its main focus was knowledge sharing, and suggested that it would be desirable to have more of a focus on road safety delivery.

Coordination with the Private Sector

3.3.4 There were a number of linkages between advisory groups, associations and charities and the private sector, with some organisations coordinating partnerships between public and private sector for road safety delivery. For instance, one organisation cited linkages with public health and business.

Views on Lead Agency Coordination

3.3.5 There is a perceived lack of road safety coordination at national, regional and local level. At national level, there is perceived to be a lack of coordination between the DfT, MoJ and HO, in addition to a lack of coordination between the enforcement bodies: DVLA, DVSA, the police, HSE, local authorities and partnerships, in addition to health and post-crash care, and work-related road safety. Advisory groups, associations and charities consulted are unclear as to whether the agencies have the same road safety objectives, and they perceived that they do not appear to coordinate activities to meet a common goal.

3.3.6 An example cited of the lack of coordination at government level is the Road Safety Minister announcing a consultation on dangerous cycling, when the MoJ has just finished a wider consultation on driving offences, leading to frustration for all. It is also not clear

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why DfT is leading on this when MoJ led on the wider consultation on driving offences and penalties relating to causing death or serious injury.

3.3.7   At regional level, stakeholders noted that large partnerships are made up of different parties who have different objectives and responsibilities, with no one specific taking responsibility and no clear objectives/priorities, therefore progress is not made. They feel that the lack of set targets does not help as it makes it harder to set common objectives.

3.3.8   They also noted that the separate police forces are not adequately co-ordinated and that whilst having separate police forces will not change, there needs to be better stronger national lead with regards to enforcement.

3.3.9   At local authority level, localism is considered a demonstration of government abdicating its leadership role. This results in local authorities working in silos, with each having to design their own standards to adhere to, this results in examples such as a lack of national standards for cycle infrastructure.

3.3.10   Stakeholders suggested that to improve coordination of road safety activities to produce a Safe System, government should coordinate more with private sector organisations to understand what does and does not work, such as engaging with fleet companies on drivers behind purchasing decisions.

3.3.11   Examples of positive coordination led by government cited include:

- The THINK! campaign and TISPOL (European Traffic Police Network); and
- Justice for Vulnerable Road User Working Group, which brought together police, MoJ, HO, CPS, DfT and road user charities (which has not met for many years).

3.4   Business and Industry

Stakeholder Interview Findings

Business and Industry Communication with Members

3.4.1   Membership organisations use a variety of channels to communicate road safety messages with their members. Examples of these communication channels include:

- Newsfeeds on websites;
- Web articles;
- Video content;
- Training manuals;
- Forums for knowledge exchange;
- Conferences, seminars and briefings;
- Training, development and education programmes/courses;
- Emails/e-bulletins;
- Magazines; and
- Industry meetings.

3.4.2   Through these channels, a wide range of road safety messages are delivered, including:

- Updates on vehicle safety technology;
- Promotion of Road Safety Week;
- Legislation changes;
- Safe road use advice;

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- Road safety initiatives;
- Safety standards for autonomous vehicles;
- Best practice in road safety engineering; and
- Updates from DfT and DVSA.

Coordination between Business/Industry Groups

3.4.3   There are a number of linkages across different business/industry organisations. Initiatives tend to comprise of knowledge sharing activities, and range from online content sharing between organisations to attending/presenting at conferences run by other organisations.

3.4.4   There is also a level of coordination, in terms of knowledge sharing, between business/industry and academic institutions.

Communication between Business/Industry and Government

3.4.5   Business and industry groups cited communicating with a range of government bodies and its agencies on road safety issues including: DfT Road Safety Delivery Group; Highways England; and DVSA. Such groups cited examples of:

- Providing technical responses to road safety consultations;
- Sitting on road safety panels as specialist advisors;
- Facilitating discussion between government and industry, e.g. with vehicle manufacturers; and
- Coordinating with Local Authorities to provide professional support when road safety interventions are being considered.

Lead Agency Communication

3.4.6   Some business and industry representatives noted that whilst they might coordinate with DfT on other issues, road safety was not an issue ever proactively raised by DfT and not considered something coordinated by DfT.

3.4.7   Business and industry representatives considered that DfT coordination needs to improve with local authorities. They felt that devolution of power to local areas has resulted in a breakdown of trust of the DfT and causes localised effects. For example, in London there are specific rules surrounding cyclist safety for HGVs, which causes confusion for road users, who must follow different rules in different areas. They also noted that local government decisions can often be party-political and influenced by local pressures and therefore not go through stringent government processes. They suggested that DfT should therefore be playing a more active role in identifying what "good" looks like, and signposting to an evidence base for local authority use and to feed new evidence into design manuals.

3.4.8   Other areas where more DfT coordination was considered important include:

- DfT coordination with **vehicle manufacturers** – businesses and industry stakeholders indicated that vehicle manufacturers are often absent from the room during discussions, and they felt this will become more problematic with autonomous vehicles; and
- DfT coordination with **corporate fleets.**

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> *"I don't think they interface at all with corporate fleets and understand what happens in that corporate space. I think they should start speaking with industry bodies a bit more, start to think about output, make a plan of action about what they are going to do to improve road safety, be more aggressive with their opinions around best practice."*
>
> (Business and industry representative)

3.4.9 Whilst DfT was considered the lead government department for road safety, business and industry stakeholders noted that efforts need to be coordinated across government, and that a change in language may assist these efforts.

> *"When we look at the words we use, 'road safety' continues to promote a way of thinking about the issue, actually we should talk about 'public health on local highway networks… DfT is the lead government department for this policy but it needs to be government across the piece."*
>
> (Business and industry representative)

3.4.10 Some business and industry representatives noted that DfT has improved in terms of coordinating research conducted amongst stakeholders as DfT's awareness of the research had increased.

Fleet Company Survey Findings

3.4.11 Seventeen fleet managers responded to questions on coordination in the online survey. Of these:

- 12 agreed that road safety activity is well co-ordinated within their organisation, 4 did not agree and 1 did not know; and
- 8 agreed that their organisation to has good linkages with central government agencies, and regional and local partnerships regarding road safety, 6 did not agree and 3 did not know.

Road Haulage Company Survey Findings

3.4.12 Three road haulage managers responded to questions on coordination in the online survey. Of these:

- 3 agreed that road safety activity is well co-ordinated within their organisation, 1 did not agree; and
- 3 disagreed that their organisation to has good linkages with central government agencies, and regional and local partnerships regarding road safety, 1 did not know.

3.5 Emergency Services

Stakeholder Interview Findings

Coordination within emergency services

3.5.1 Internal road safety events organised by/for the fire service include annual practitioner days and seminars. Some fire services have road safety strategic leads who take

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responsibility for coordinated road safety activity internally and with external partners.

3.5.2   National police activity is coordinated by a campaign calendar with themed months and weeks, which corresponds with the THINK! Calendar.

3.5.3   Road safety activities within the ambulance service can be coordinated by internal, dedicated Accident Reduction Officers and in-trust driver training and staff training.

Coordination between emergency services and external organisations

3.5.4   In some regions, the emergency services, with other agencies, coordinate road safety activity through road safety partnerships. These may include road safety discussions, putting together joint strategies to address problems and the provision of resource.

3.5.5   There are a number of initiatives that integrate the police and fire services on matters of road safety. In some regions, non-compliant driver courses are delivered jointly, including speed awareness courses. Other educational initiatives targeted at wider levels are also delivered jointly in some areas.

3.5.6   Ambulance trusts participate in the National Accident Reduction Group, which consists of all other Ambulance Trusts and motor insurers and brokers to reduce the number of accidents involving ambulances.

3.5.7   Other external organisations coordinated with by emergency services include:

- Armed Forces;
- Public bodies;
- Local Authority;
- Highways Agency;
- Coroners;
- Government Agencies;
- Private organisations;
- Charities; and
- Public groups.

Road Safety Communication with the Public

3.5.8   Methods of communicating road safety messages with the public by police and fire services include:

- Social media campaigns;
- Radio advertisements;
- Newsletters;
- Booklets;
- Events at schools;
- Presentations in hospital waiting rooms; and
- Vehicle activated signs.

Barriers to Coordination

3.5.9   An example cited of poor coordination, within the health service, is the handover of patients to the hospital/A&E department – with least critical patients having to remain within the ambulance until space becomes available within the hospital, meaning delays for ambulances that cannot be released.

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3.5.10   Also, there is limited coordination between the emergency services in terms of the patient data journey. Whilst road trauma patient data is collected within hospitals, this is not integrated with ambulance data. The data is also not coordinated with fire service data, despite the fire service often being the first to the scene of a road collision. Whilst previous attempts have been made to combine STATS19 data with patient data, this has also been met with many barriers, such as differences between police and medical language.

3.5.11   Additionally, a barrier to road safety coordination identified by a police force is the lack of priority given to road safety, which is often dependent on the individual priorities of police and crime commissioners (PCC).

3.5.12   There were concerns raised that roles in coordination need to be better defined, in order to ensure each service delivers in the area of their expertise, rather than according to availability of resource.

3.5.13   Suggestions for strengthening coordination, on a national and local basis include:

- Developing a closer partnership with Road Casualty Reduction Officers, within the ambulance service, and other key stakeholders;
- Improvements to resources and time to progress more effectively;
- Dedicated meeting with partners;
- Development of a single points of contact; and
- Improvements to consistency.

Lead Agency Communication

3.5.14   Some emergency representatives noted that they would like more coordination with DfT, and would like direct communication with DfT in order to transfer knowledge.

3.5.15   Other suggestions to improve DfT coordination include:

- A DfT-led newsletter/website which outlines and coordinated best practice in education and enforcement, including sharing success stories;
- DfT influence to coordinate the integration of EMS data with TARN data; and
- DfT coordination in order to overcome competitiveness within the industry to promote knowledge sharing.

Police Force Survey Findings

3.5.16   Twelve police force representatives responded to questions on coordination in the online survey. Between them they reported regularly working with the following organisations relating to road safety:

- Central government departments, such as the Department for Transport (DfT), DVSA, DVLA, DGSA, HMRC, Highways England, UK Border Agency, Environment Agency, Department of Health and Social Security (DHSS);
- Members of Parliament;
- Neighbouring County Councils;
- Regionalised Transport agencies, such as Transport for London (TfL);
- Local Highway Authorities;
- National Road Safety Organisations, such as RoSPA, BRAKE, THINK, Road Safety Wales and BikeSafe;

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- International Road Safety Organisations, such as the European Traffic Police Network (TISPOL);
- Emergency Services, such as the police service, the fire and rescue service and the ambulance service;
- The National Health Service (NHS). However, one respondent bemoaned the lack of engagement from health partners:
- "Complete lack of engagement from Health partners. This is non-existent. No join up nationally on this so how can we expect local initiatives to deliver?";
- Local authority public health departments;
- Schools and academic institutions;
- Regional road safety partnerships;
- Local businesses;
- Media outlets;
- Motor Insurers Bureau;
- Other charitable organisations, such as British Horse Society;
- Local community schemes, such as Community Speed Watch (CSW);
- Cycling associations;
- Trading Standards; and
- Fuel testing organisations.

3.5.17 The police force representatives provided insight into a range of methods used to co-ordinate activity with different parts of their force. Road safety is often co-ordinated through tasking processes and briefing teams, whereby departmental leads discuss priorities and threats, to ensure police resources are deployed effectively. Operational orders are also developed to decide where resources should be deployed. Co-ordination is also achieved through technology, including the use of email, Twitter, and force web sites. Whilst some forces had specialist positions, such as Casualty Reduction Officers, Single Points of Contact (SPOCS), or a dedicated Special Constabulary Roads Safety Education team, others bemoaned the lack of support that road police receive, or the current lack of co-ordination in their force. As an example, one respondent mentioned that their co-ordination was only achieved by knowing certain individuals and asking favours. Many police officers cited the use of campaigns (both nationally and locally) and the formation of partnerships with authorities and other emergency services, such as the 95 Alive Campaign in North Yorkshire. One respondent referred to Section 22a of the National Police Collaboration Agreement, in which different police forces work co-operatively. Road Police also work with other units to disrupt gang behaviour by using Automatic Number Plate Recognition (ANPR) and applying Traffic Legislation.

3.5.18 A range of examples where road traffic enforcement activity has been overlaid with other initiatives were provided by police force representatives. These examples include:

- Multi-Agency enforcement, such as:

  - Operation Trivium, which targets cross-border criminality, seeking to deny criminals the use of the roads in their criminal operations; and
  - Initiatives to target immigration offences, unregistered/untaxed vehicles, unsafe vehicles and non-compliant vehicles. For instance, Carriage of Dangerous Goods Operations.

- Working with local authorities to encourage active travel, promoting benefits such as improved health and reduced pollution; and
- Taxi Enforcement.

SYSTRA

3.5.19   Asked whether they considered *'road safety activity is well co-ordinated and communicated within their police force'*, responses were:

- ○ 2 totally agreed;
- ○ 1 mostly agreed;
- ○ 8 partially agreed; and
- ○ 1 disagreed.

3.5.20   Asked whether *'the police force works with other organisations locally to achieve road safety results'*, responses were:

- ○ 4 totally agreed;
- ○ 4 mostly agreed; and
- ○ 4 partially agreed.

3.5.21   Asked whether 'the police force works with national networks/organisations to achieve road safety results', responses were as follows:

- ○ 3 totally agreed;
- ○ 2 mostly agreed; and
- ○ 7 partially agreed.

3.5.22   Finally, when asked whether *'road safety in the police force is being aligned with other national policies and Sustainable Development Goals to achieve co-benefits and build business cases'*, responses were:

- ○ 0 totally agreed;
- ○ 2 mostly agreed;
- ○ 2 partially agreed;
- ○ 6 disagreed; and
- ○ 2 did not know.

3.5.23   All but one of the 12 police force representative reported having a formal road safety partnership within their area. For the representative whose force did not belong to a formal road safety partnership, there had been a formal road safety partnership previously, but it had been disbanded.

3.5.24   A range of suggestions for strengthening work with other road safety partners were proposed by the police force representatives. These were as follows:

- ○ Increase the level of funding for road safety policing activities and partnerships – "Some local authorities have seen road safety activity almost disappear through austerity";
- ○ Align partners' strategies to create 'Best Practice' guidance;
- ○ Have a national dedicated Chief Police Officer whose job is entirely dedicated to Road Safety;
- ○ Utilise all resources by getting agencies to deliver free training to each other; and
- ○ Undertake more focused 'intelligence-based' work.

3.6   Academic Institutions

Stakeholder Interview Findings

Coordination between Stakeholder Groups

SYSTra

3.6.1   Poor coordination was considered a barrier to the delivery of road safety by some academic institutions, who referred to insufficient cross-expert discussion and competitiveness preventing knowledge sharing within academia.

3.6.2   Suggestions for improving coordination include:

- Stakeholder management groups, where different members focus on different aspects of Safe System;
- Research findings to be coordinated by a cross government agency; and
- A road safety research advisory board for external experts to contribute ideas on research priorities.

Lead Agency Coordination

3.6.3   Academic institution representatives noted that DfT should be responsible for coordinating road safety, and that individual organisations are unable to implement road safety alone.

3.6.4   Representatives were aware of some DfT communication with a range of stakeholders, however noted that they had not seen any evidence of sharing/coordination delivery strategies, and that this is essential to implement a Safe System. The establishment of new regional frameworks/coordination bodies was suggested.

3.6.5   Concern was also raised around UK coordination and insufficient engagement with EU vehicle safety working groups.

SYSTra

4.   INSTITUTIONAL MANAGEMENT FUNCTION: LEGISLATION

4.1   Central Government Departments/Agencies

Stakeholder Interview Findings

4.1.1   Central government departments and agencies explained that the responsibility for legislation on driving offences is shared between the Ministry of Justice (MoJ) and the DfT, but which department takes responsibility for different elements is not always clear. In general, it is considered that initiative for legislation comes mainly from the DfT, particularly for lower level offences. The MoJ is perceived to take responsibility for more serious breaches of the law that result in sentencing rather than fixed penalties; for ensuring that the fixed penalty regime does not impose fines greater than would be given in court; and for advising the DfT on changes to penalties and offences, for example on:

  ○   Recent changes to penalties for mobile phone use whilst driving;
  ○   Whether or not to merge dangerous and careless driving offences; and
  ○   Length of disqualification and the introduction of lifetime bans.

4.1.2   Central government department and agency representatives considered that some legislation applies to the whole of Great Britain whilst some, including speed limits and drink-drive limits, are devolved.   Some recent legislative changes in devolved administrations were noted, including changes relating to Graduated Driver Licensing in Northern Ireland (2018), and new arrangements relating to roadside alcohol breath tests at the roadside and blood alcohol concentration limit in Scotland.

4.1.3   The Sentencing Council was described as an independent body that promotes greater consistency in sentencing whilst maintaining the independence of the judiciary.

4.1.4   There is a general view in central government and the agencies that current legislation relating to road safety is mainly 'fit for purpose'. Examples include the Health and Safety Work Acts 1974, which, whilst being 40 years old, is still considered fit for purpose due to the goal setting structure - benchmarks are agreed and set and case law updates/defines duties.

4.1.5   However, whilst current legislation is mainly considered to be appropriate, many commented that there is sometimes a problem with lack of awareness of legislation (for example load security legislation); that it is not always well enough understood; and that it is not always well enough enforced (for example the police do not have adequate resources for road policing).

4.1.6   There was also a widespread view that there is limited or no opportunities for any new road safety legislation at present because BREXIT is taking up all available resources to consider new legislation, and BREXIT issues need to be addressed before new legislation is considered. Exceptions noted were:

  ○   Recent legislative changes resulting in a stricter penalty regime for disqualified drivers causing death by dangerous driving;
  ○   Recent legislative changes ensuring that the length of disqualification from driving takes into account the length of custodial sentences;
  ○   Legislative work currently underway to mandate the Euro NCAP 65% 5 star pedestrian protection threshold in the provision of transport services for all government departments; and

SYSTra

- Legislative development currently taking place on self-steering of automated vehicles (although no conclusion has been reached on legislating for crash protection standards on non-European Community Whole Vehicle Type Approval vehicles).

4.1.7 Whilst some expressed a desire for a similar legislative environment post BREXIT, including retaining unified licence rules and standards, and EU Whole Vehicle Type Approval, there is also recognition by some that BREXIT will provide an opportunity in the future to look beyond European legislation and will allow for more creativity.

4.1.8 Some areas where future legislation changes were desired by at least some from central government departments/agencies include:

- Consideration of new driving offences and penalties relating to causing death or serious injury by careless driving, as opposed to existing legislation which only addresses causing death by dangerous driving. This new driving offence, and its associated penalties, were consulted on in 2016, with the MoJ concluding that the offence will be introduced;
- Increased legislation to enhance pedestrian and cyclist safety;
- Increased legislation around cycling, with a view to legislating for death by dangerous cycling (which is being considered as part of the cycle safety review); and
- Management of the physical state of vehicles i.e. the poor condition of vehicles due to age and wear and tear.

4.1.9 More specific legislative changes desired by at least some from central government departments/agencies include:

- Restrictions on provisional licences for motorcycle riders such that if they get 6 points within 2-3 years, their provisional licence is withdrawn;
- Introduction of theory tests before provisional licences for motorcycle riders are given; and
- Road safety education forming part of Personal, Social, Health and Economic (PSHE) education on the national school curriculum.

4.1.10 Potential legislative changes which were a cause for concern by some includes potential changes to EU rules on graduated access to motorcycles, as it was considered this may potentially deter riders from taking tests.

4.2 Local Government

Stakeholder Interview Findings

4.2.1 Local government representatives highlighted that current legislation and regulations were developed alongside a general understanding that it is road users that make roads unsafe. The Safe System approach, in which it is considered that it is the road and roadside environment that makes roads unsafe, has been developed more recently, without changes to regulations, legislation and guidance for road engineers to reflect this.

4.2.2 Risk and safety assessments, supported by the safety audit, highlight inherent danger in roads and thus support the Safe System approach. The Construction and Design Management (CDM) regulations put a responsibility on designers to remove risks identified by an independent risk assessment safety audit. Whilst this highlights risks,

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local government representatives considered that these risks cannot be removed because the design manuals (which they reported were designed for the strategic road network and not the local road network) are outdated. They reported that engineers are not prepared to step outside of these design manuals, due to liability issues.

> *"[Engineers] are put in a very awkward position because, in one breath they are reading the Road Safety Statement, but at the same time, they are looking at their design manuals and saying well, 'actually I can't because the design manuals say it's got to be x, y and z… If they [government] had actually looked at the legislation and regulations that road networks are designed under, and reviewed those, this [Safe System] would be a huge success"*
>
> (Local authority representative)

4.2.3   They therefore consider that whilst most legislation relating to road safety is fit for purpose, the underpinning design manuals require updating for the current local road network.

4.2.4   Other views expressed by a few or less local authority representatives were that:

- DfT should take a stronger lead on legislative matters, particularly in the area of vehicle safety and driver licensing;
- Cyclist accountability should be captured through legislation; and
- Graduated driving licences should be introduced.

Road Safety Officer Survey Findings

4.2.5   Thirty one RSOs responded to questions on legislation in the online survey.

4.2.6   There were high levels of agreement with the statement *'current legislation is appropriate to enable the local authority to deliver effective road safety interventions'*:

- 24   totally or mostly agreed;
- 5   partially agreed; and
- 2   did not know.

4.2.7   Of those RSOs who suggested that legislation was mostly or partially appropriate, suggested issues were:

- The room for interpretation with terminology, which has been seen to lead to the lowest permissible level of road safety activity, without breaching statutory responsibility;
- Statutory responsibility of all organisations in the delivery of road safety is unclear; and
- The criminalisation of moving traffic offences, which do not include parking violations, equipment violations or paperwork violations, relating to vehicle insurance and registration, as this does not allow for local authority input, in all cases.

4.2.8   RSOs suggested many legislative changes at a national level, which would help deliver road safety locally (not all of which address the issues cited above), including:

- Making road safety education part of the national school curriculum;

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- Introducing Graduated Driving Licenses;
- Allowing 16 year olds to ride two-wheelers in excess of 50cc;
- Introducing driver re-testing for all ages;
- Introducing mandatory eye sight tests for older drivers;
- Introducing national and local road safety targets;
- Decriminalising moving traffic offences;
- Improvements to drink-drive laws by reducing the legal alcohol limit to bring the UK more in line with global best practice;
- Restricting mobile phone use and in-car infotainment systems;
- Realignment of careless/dangerous driving and careless/dangerous cycling legislation;
- Legislation considering the whole cost of road-safety education and allowing for the re-investment of NDORs and safety camera surplus;
- Legislation committing to and outlining ring-fenced funding for road safety;
- Legislation outlining cycling standards regulations, as well as vehicle standards regulations, ensuring all vehicles are equipped with systems suggested by Euro NCAP; and
- More comprehensive legislation on work related travel.

4.2.9   Despite the changes suggested, there was some concern that legislation cannot be changed in isolation, and that there needs to be an awareness that legislation aimed at punishing drivers creates contempt toward authorities.

Local Authority Survey Findings

4.2.10   Twenty four local authority representatives responded to questions on legislation in the online survey.

4.2.11   There were high levels of agreement with the statement *'Current legislation is appropriate to enable the local authority to deliver effective road safety interventions'*:

- 20   totally or mostly agreed;
- 3   partially agreed; and
- 1   did not know.

4.2.12   Existing legislation, such as the Road Traffic Act (1988) was recognised as critical, however there was some concern over Section 39, which outlines local authorities' statutory duties for road safety, with a few local authority representatives suggesting that this section does not quantify statutory duties and therefore does not make funding of statutory duties imperative. Additional comments suggested that targets may have an impact on legislation and that legislation is not the only limiting factor in the delivery of road safety interventions, with funding and resource also cited.

4.2.13   Local authority representatives suggested many legislative changes at a national level, which would help deliver road safety locally, namely:

- Making road safety education part of the national school curriculum;
- Introducing Graduated Driving Licenses;
- Introducing driver retesting for all ages;
- Removing self-certification on fitness-to-drive;
- Introducing road safety targets;
- Setting of national indicators which reflect national priority outcomes for local authorities and act as performance management markers;

- Improvements to drink drive laws by reducing the legal alcohol limit to bring the UK more in line with global best practice;
- Changing national speed limit to 50mph on rural roads;
- Legislation giving pedestrians and cyclists priority on side roads;
- Improvements to the Traffic Management Act to improve enforcement of moving traffic offences, with reference to technological enforcement;
- Changes to the Road Traffic Regulation Act to allow for School Keep Clear markings to be enforceable by Civil Enforcement Officers and the police through the implementation of the correct signage, without the need for a Traffic Regulation Order;
- Removal of the requirement to inform the Secretary of State for Transport of any changes to pedestrian crossings;
- Legislation for the re-investment of NDORS and road traffic offences surplus;
- Legislation committing to, and outlining, ring-fenced funding and resource for road safety;
- Legislation outlining vehicle safety standards regulations; and
- The amalgamation of legislation relating to road safety, public health and safe school travel (Education and Inspections Act).

4.2.14 There was some concern that changes to legislation would lead to greater local power, which would further decrease consistency of road safety at a local level.

4.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

4.3.1 There was some concern about future watering down of legislation post BREXIT, alongside a recognition that there may also be opportunities for the UK to develop new regulations and legislation more quickly when there is no longer a need to go through the EU. A number of organisations have taken a lead in reviewing current legislation.

4.3.2 Whilst there is a general feeling that current legislation is fit for purpose and unlikely to change whilst the focus is on BREXIT, some specific changes are considered necessary or desirable, as follows:

- A review of the Road Traffic Act (1988) and subsequent road safety legislation, which is currently part of various Home Office and Ministry of Justice bills, to bring the many bits of legislation together (such as the Health and Safety Work Act 1974 and London Transport Act 1984);
- More guidelines and enforcement around the Health and Safety at Work Act, and a review to make convictions more achievable;
- Consistency and clarity in laws relating to causing death and serious injury by dangerous driving and laws relating to causing death and serious injury by careless driving, with stakeholders suggesting that there is inconsistency in laws relating to death and serious injury and overlap in the definitions of careless and dangerous;
- More speeding legislation to support the Safe System approach, for example mandatory speed limiters in all vehicles (ISA) and road speed limits which align better;
- More support from government regarding the 20mph speed limit, limiting the processes required to get it through local authorities and more enforcement to back it up;
- More clarity around Vehicle Safety Regulations which are set internationally and are poorly understood;

SYSTRA

- Changes to the Highway Code to make it more applicable to sustainable modes of transport, such as clarity over right of way for cyclists;
- Legislation around the design of lorries and buses to improve sight lines to help vulnerable road users;
- Mandatory practice on motorbikes without ABS prior to taking a motorbike test;
- Guidelines on developing road infrastructure which meets the needs of all road users without reducing traffic capacity for motor vehicles, including design guidance for building cycle lanes;
- A legal way of marking a cycle lanes across the mouth of a junction to make the priority more clear;
- Mandatory appointment of a cabinet lead for road safety within local authorities;
- Legislation to make eye sight tests and an online test of the highway code compulsory at a certain age in order to keep your licence; and
- A change in driver training and tests so people know how to use technology in cars (e.g. use Satnav) and know how to park cars without sensors.

4.4 Business and Industry

Stakeholder Interview Findings

4.4.1 Whilst some business and industry representatives view current legislation (including the Road Traffic Act) and safety standards as generally adequate as they stand, others consider that there is a need for more legislation and changes in regulations.

4.4.2 There is a hope and expectation that safety standards will not be reduced during BREXIT, or diluted during subsequent trade agreements, and many expressed that if they were, this would have negative consequences on road safety standards.

4.4.3 Business and industry stakeholders noted that national safety requirements relating to safe work travel, compliance with regulations for businesses, and penalties for noncompliance, need to be set out more clearly. A number of suggestions for improvements to legislation and regulations relating to safe work travel were highlighted by business and industry representatives. In summary, these were as follows:

- Road accidents involving people travelling to/from and for work should all be within the remit of the Health and Safety Executive (HSE). There should not be differences in legislation for safety whilst driving at work and whilst driving to/from work – both should be under corporate responsibility and involve prosecution of employers for wrong doing;
- Licensing requirements for HGVs require additional driver training, but this is not required from a corporate perspective, making the obligation unclear. However, legislation relating to corporate manslaughter usually encourages individuals to *"embrace their obligations properly".* A better definition on additional training as a requirement for workplace driving is required;
- There is a perceived level of ambiguity, from a corporate fleet perspective, around what employees are obligated to do in relation to safe work travel requirements, and guidelines would be welcomed around fleet policy to address this. In addition, changes are desired to make driving license checks in the corporate market mandatory (and provided free of charge by the DVLA to encourage compliance), and to make employers responsible for ensuring vehicles are serviced, insured, have an MOT and have regular tyre and fluid level checks; and
- There is concern that those in the road haulage industry will not get accredited with the Fleet Operator Recognition Scheme (FORS) (a voluntary accreditation scheme

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that promotes best practice for commercial vehicle operators) or the Construction Logistics and Cyclist Safety Standard (CLOCS), which aim to increase awareness of surroundings and vulnerable road users, unless it is mandatory for them to do so. Mandatory FORS and CLOCS accreditation is required before entering building/construction sites and areas in London. There was a belief that this could be mandated nationally, through HSE.

4.4.4   Some business and industry representatives expressed a desire for regulation relating to technical standards for vehicles to be done at a UN ECE level. However, suggestions for changes to legislation and regulations around vehicle safety include:

   ○   Legislation is required to make added safety features tax free to the consumer;
   ○   Legislation is required to increase the number of mandatory safety features in new vehicles (although global regulations are an acknowledged barrier to this);
   ○   Legislation around mandatory safety features on HGVs should be uniform throughout the country. Stakeholders considered that local standard-setting e.g. in London's 'Safer Lorry Scheme' (under which only lorries with certain safety equipment fitted will be allowed on London's roads) leads to lack of uniformity and a confused national picture, especially for operators. They suggested that government leadership is required to set national safety requirements in this respect; and
   ○   Regulation is required at an international level for autonomous vehicles that will act as a framework to pick up individual bits of legislation e.g. methods for detecting driver drowsiness and distraction, eye-tracking software, lane guidance systems. There is a Global Forum for Road Traffic Safety looking at these regulation requirements. Business and Industry representatives suggested that the DfT will also need to develop a code of practice for autonomous vehicles on UK roads and they are currently working with various parties on this.

4.4.5   Business and industry representatives applauded changes to allow learner drivers experience and exposure on the motorway network pre-test with an Approved Driving Instructor (ADI), as was strengthening of ADI training by DVSA. Further changes which some would like to see in relation to learning to drive included:

   ○   A consistent curriculum for learning to drive with mandatory modules, e.g. night driving, bad weather driving, learning on country lanes and carrying passengers (if the Government will not legislate to enforce this other approaches could be used, e.g. insurance premium discounts and policy restrictions relative to driver behaviour using telematics);
   ○   A mandatory number of hours with an ADI when learning to drive; and
   ○   A longer learning to drive process with real life driving experience, as seen in Northern Ireland.

4.4.6   It was considered that umbrella bodies for all road user groups should be consulted on any potential legislation changes which may affect them, for example changes to the Highway Code relating to cyclists' priority at left hand turns and changes implemented by local authorities.

4.4.7   Despite suggesting changes to legislation, some business and industry representatives acknowledged that change to legislation alone will not improve road safety outcomes and that education and the know-how to comply with new regulation and legislation is key.

Fleet Company Survey Findings

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4.4.8   Seventeen fleet managers responded to questions on legislation in the online survey. Of these:

- ○   12 agreed/strongly agreed that current legislation is appropriate to enable their organisations to deliver effective road safety interventions; 4 did not agree and 1 did not know.

Road Haulage Company Survey Findings

4.4.9   Four road haulage managers responded to questions on legislation in the online survey and all four agreed/strongly agreed that current legislation is appropriate to enable their organisations to deliver effective road safety.

4.5   Emergency Services

Stakeholder Interview Findings

4.5.1   Emergency service representatives welcomed the opportunity to be informed and involved in early consultation and discussion on proposed legislative changes relating to road safety through involvement with the Road Safety Delivery group.

4.5.2   Whilst some consider that current legislation enables the implementation of the Government's British Road Safety Statement, the majority highlighted legislation which they considered outdated and in need of change. Such changes include:

- ○   Changes to regulations around learning to drive to make practice on private roads prior to being allowed on public roads, and lessons on motorways, mandatory;
- ○   Graduated driver licences to restrict new drivers, for example the age/number of passengers they can take and alcohol levels (although some emergency service stakeholders were not in favour of this and preferred better education aimed at increasing awareness of road safety, whilst addressing the psychological elements of driver behaviour, such as peer pressure);
- ○   Regular driving assessments for senior road users (some police forces run a voluntary 'Drive Safer for Longer' scheme to fill this gap);
- ○   An overall review of legislation to close loopholes which prevent conviction or reduce sentences, and make interpretation easier for lay people. Loopholes have crept in as legislation is incrementally added to;
- ○   Legislative support to allow members of the public to commit an offence (e.g. contravene a red light) to allow for safe progression of an emergency vehicle; and
- ○   Change to the Road Traffic Act to increase the amount of time allowed to get to court from six months to longer (because administration/chasing usually takes up a large amount of this time, and police resources are limited. This currently means some offences will never be penalised and a lot of cases will be lost).

> *"It's great to have legislation, but you've got to be able to have the end product to be able to deliver it… by the time you've relayed all the information and got all the information you need to be able to take that person to court you're on such a tight timescale that a lot of cases get lost."*
>
> (Emergency service representative)

SYSTRA

4.5.3 Legislation which enforces hospitals to provide TARN with data, and allows TARN to interrogate data at a patient level, was considered valuable.

Police Force Survey Findings

4.5.4 Twelve police force representatives responded to questions on legislation in the online survey.

4.5.5 Eleven of the twelve police force representatives who responded to the survey believe that current legislation is totally or mostly appropriate to enable the police force to deliver effective road safety activity. One partially agreed with this sentiment.

4.5.6 Six police force representatives offered suggestions for legislative changes which would help them deliver road safety locally. Suggestions made include:

- Reduce the drink drive limit – from 80mg to 50mg of alcohol;
- Retest older drivers;
- Tighten mobile phone legislation, with the DfT offering greater support for mobile phone diversion courses;
- Crack down on cycling offences, with robust fines and sentencing;
- Create a national infrastructure force / body to enforce compliance on the strategic road network; and
- Ring fence funding for roads policing / road safety.

4.5.7 Of the six police forces who suggested these legislative changes, half suggested that legislation alone would will not improve road safety outcomes and that other factors are also important. Namely:

- More resources to support legislation;
- More resources to deliver enforcement; and
- Local government and police policies need to be reviewed to allow for closer working practices.

4.6 Academic Institutions

Stakeholder Interview Findings

4.6.1 Whilst there was acknowledgement that current legislation broadly allows for the implementation of the British Road Safety Statement, there was a concern that enforcement is absent or limited due to the large reduction in traffic policing and heavy reliance on camera technology which only detects certain behaviours (e.g. speeding) and ignores others (e.g. phone use).

4.6.2 Areas of legislation highlighted as not meeting current requirements were:

- The current drink drive limit, reported to be higher than all other European countries, apart from Malta; and
- The lack of any graduated driver licence requirements, in particular relating to reducing alcohol limits for young drivers.

4.6.3 Concern was raised regarding a perceived lack of enthusiasm for regulation of vehicle safety.

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5. INSTITUTIONAL MANAGEMENT FUNCTION: FUNDING & RESOURCE ALLOCATION

5.1 Central Government Departments/Agencies

Stakeholder Interview Findings

5.1.1   There is widespread acknowledgement across the Department for Transport (DfT) and its agencies of a lack of road safety funding and resources. However, response were more positive regarding ring-fenced for road safety initiatives, including The Safer Roads Fund, and one of the five ring-fenced funds within the Road Investment Strategy (RIS 1) for the delivery of road safety initiatives, with a focus on single-carriageway A roads.

5.1.2   Factors identified as having an impact on levels of funding and resource allocation for road safety include the United Kingdom's exit of the European Union, and mayoral resistance to ring-fencing funds.

5.1.3   Specific areas raised as having been impacted by the lack of funding and resource include the reduction in traffic police officers and reduced capacity for vehicle safety research.

5.2 Local Government

Stakeholder Interview Findings

5.2.1   Whilst local authorities welcome the Safer Roads Fund there is still wide-spread concern regarding the lack of available funding and resources for road safety, with councils citing a large reduction in available funding. Local authority stakeholders considered the current lack of resource to be an impediment to road safety progress as it has led to a reduction in road safety activity delivered by councils, including ETP and safe work travel.

5.2.2   Some councils spend funding generated by speed awareness courses and National Driver Offenders Rehabilitation Scheme (NDORS) on road safety activities. However, there is concern that the funding generated from NDORS is vulnerable and may not be able to be used in this way in the future (see Section 4.2).

5.2.3   Other comments made by local authorities on road safety funding and resourcing include:

- The prioritisation of resources by councils is not always based on cost-benefit analysis - other benefits are considered over safety benefits;
- There is a desire to shift towards a steady long-term funding approach, directly linked to asset and network management strategies;
- There is a desire to ensure that Major Road Network funding is not at the cost of existing road funding, e.g. National Road Fund;
- There is a desire for the Safer Roads Fund to be extended and not to be competitive[1], as it means the planning process is too short for implementation; and
- Targets and funding are considered intrinsically linked, because when targets are in place there is pressure on local politicians, which encourages them to be engaged in the bidding process to receive road safety funding.

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[1] Please note, the fund was not competitive but targeted; local authorities with eligible roads were invited to bid.

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Lead Agency Funding Streams

5.2.4 Comments made by local government representatives on road safety funding from DfT include:

- Severe cuts over the last decade have had a large adverse impact on road safety work;
- Road safety activity needs ring-fencing; and
- There is a perception that funding to local authorities will be lost if it is not possible to see a return, however because no targets are set it is not possible to see a return.

Road Safety Officer Survey Findings

5.2.5 Thirty one RSOs responded to questions on funding in the online survey.

5.2.6 Just over half of RSOs (17) reported having DfT funding available for the delivery of road safety interventions. These funding schemes included:

- The Safer Roads Fund;
- The Local Access Fund;
- Local Transport Plans;
- Sustainable Transport Grants; and
- Bikeability.

5.2.7 The majority of RSOs (25) reported receiving no funding from the health sector for the delivery of road safety interventions. Of the small minority that did receive funding (6), they thought that the funding came from the public health budget and addressed:

- The promotion of 20mph;
- The promotion of walking and cycling;
- Improvements to air quality; and
- Reduction in childhood injury.

5.2.8 The majority of RSOs (27) reported receiving no funding from other central government departments for the delivery of road safety interventions. Of those that did receive funding (4), they thought funding came from local government bodies responsible for delivering transport schemes. Specific schemes cited included:

- The Road Safety Framework Fund; and
- Air Quality Grants to reduce idling outside schools.

5.2.9 The majority of RSOs (29) reported receiving funding from local authorities for the delivery of road safety interventions. Funding was reported to come from:

- Local authority capital and, revenue and funding;
- Local Transport Plans;
- Local Highways;
- Local Public Health Budget; and
- Local Road Safety Schemes Budget.

5.2.10 The majority of RSOs (25) reported receiving no funding from trusts and charitable sources for the delivery of road safety interventions. Of the minority that did receive funding (6), sources included:

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- O Sus trans', Cycling, Walking and Safer Streets Fund;
- O The Police services', Safer Communities Fund;
- O Road Safety GB;
- O Local Football Clubs; and
- O Road Safety Trust.

5.2.11 Only a small minority of RSOs (2) were aware that their local authority receives funding from the Insurance Sector for specific road safety interventions projects. Most (29) reported receiving no funding from the insurance sector for roads safety interventions.

5.2.12 Again, only the minority of RSOs (2) were aware that their local authority receives funding from the Industry Sector for road safety intervention projects, specifying that this was for support in ETP events. Most (29) reported receiving no funding from the Industry Sector for road safety interventions.

5.2.13 No RSOs considered their local authority received funding from Crowd Funding for the delivery of road safety interventions.

5.2.14 Just under a third of RSOs (9) were aware that their local authority did receive funding from 'other' sources. These included:

- O NDORs Surplus;
- O Funding by organisations in receipt of commercialised road safety services, for instance data and analytics;
- O Police services, with an awareness that this was only short-term;
- O Safety Camera enforcement;
- O Local Enterprise Partnerships; and
- O Sponsorship.

5.2.15 The majority (25) of RSOs reported decreases in road safety funding in the last 5 years, with a smaller minority (2) suggesting increases and the remainder (4) suggesting that funding had stayed the same. The percentage decrease reported by RSOs is outlined in Table 2.

Table 2. Percentage decrease of funding in the last 5 years

PERCENTAGE DECREASE	RESPONSE
0-10% decrease	0
11-20% decrease	6
21-40% decrease	6
41-60% decrease	5
61-80% decrease	4
81-100% decrease	1

5.2.16 Only 2 RSOs reported increases, with one estimating the increase to be 25%.

SYSTRA

5.2.17   The reported estimates of the proportion of funding allocated to road safety which is ultimately and solely used for road safety is outlined in Table 3.

Table 3.   Proportion of funding allocated to road safety actually used for purpose of road safety

PROPORTION OF FUNDING	RESPONSE
0-25%	2
26-69%	0
70-100%	22

5.2.18   The reported estimates of the proportion of staff time allocated to road safety which is ultimately spent on road safety tasks and activities is outlined in Table 4.

Table 4.   Proportion of time allocated to road safety task actually spent on road safety tasks

PROPORTION OF TIME	RESPONSE
0-25%	2
26-69%	2
70-100%	23

5.2.19   RSOs reported differing levels of agreement with the statement, *'Investment in evidence-based road safety activity within the local authority is secure'*:

- 4   totally agreed;
- 7   mostly agreed;
- 11   partially agreed;
- 7   disagreed; and
- 1   did not know.

5.2.20   The most commonly reported difficulty in securing investment in evidence-based activity was budgetary constraint. Additionally, there was some belief that non-evidence based practices were also funded.

5.2.21   RSOs reported differing levels of agreement with the statement, *'Budgetary pressures have reduced the priority given to road safety more than other local authority activities'*:

- 6   totally agreed;
- 10   mostly agreed;
- 9   partially agreed;
- 3   disagreed; and
- 2   did not know.

5.2.22   Education and Social Services were reported as areas prioritised over road safety in local authorities. Some RSOs reported a total removal of roads departments and removal of discretionary capital funding for casualty reduction schemes.

5.2.23   Levels of reported agreement with the statement *'The number of staff to deliver road safety interventions is sufficient'* were:

SYSTra

- **2** totally agreed;
- **2** mostly agreed;
- **9** partially agreed; and
- **17** disagreed.

5.2.24 RSOs reported differing levels of agreement with the statement, *'The skills and capabilities of staff to deliver road safety interventions is sufficient':*

- **6** totally agreed;
- **11** mostly agreed
- **5** partially agreed;
- **7** disagreed; and
- **1** did not know.

5.2.25 Staff skills and capabilities were identified as particularly important in road safety education and engineering. Difficulties identified were:

- Difficulty finding staff; and
- Lack of resource for training and development, although CPD was cited as important.

5.2.26 RSOs explained many ways in which local authorities had been seeking to increase efficiency and make better use of available financial and human resources. These were:

- Enhanced partnership working;
- Greater collaboration with the police service;
- Better software for analysis;
- Attempting to conduct schemes simultaneously;
- Outsourcing of delivery or the development of self-service delivery, however, this was viewed with contempt by some RSOs who believe that this leads to job cuts;
- Community engagement;
- Reviewing delivery, trends and scheme rationale, to ensure that hotspots are targeted and delivery is effective; and
- Finding additional and new revenue funding schemes.

5.2.27 A few RSOs suggested that local authorities were not seeking to increase efficiency and make better use of available resources, or could not do this, due to limited resources in the first instance.

Local Authority Survey Findings

5.2.28 Over three quarters of local authority representatives (20) reported having DfT funding available for the delivery of road safety interventions. These funding schemes included:

- The Safer Roads Fund;
- Highways Funds;
- The Local Access Fund;
- National Productivity Fund;
- Local Transport Plans;
- Sustainable Transport Grants/Funds; and
- Bikeability.

SYSTRA

5.2.29   Three quarters of local authority representatives (18) reported receiving no funding from the health sector for the delivery of road safety interventions. Of those who did receive funding (6) from the health sector, funding was made through a Public Health grant. One local authority respondent suggested that health sector funding was often discussed within their local authority, however, no specific funding had been developed to date.

5.2.30   The majority of local authority representatives (23) reported receiving no funding from other Central government departments for the delivery of road safety interventions.

5.2.31   The majority of local authority representatives (22) reported receiving funding from local authorities for the delivery of road safety interventions. Funding was reported to come from:

- Local Authority capital, revenue and funding;
- Local Transport Plans;
- Local Highways; and
- Local Road Safety Schemes Budget, with specific reference to casualty reduction and road safety ETP.

5.2.32   The large majority of local authority representatives (21) reported receiving no funding from trusts and charitable sources for the delivery of road safety interventions. Of the small minority that did receive funding (3), sources were regional road safety partners, including the Safer Roads Foundation.

5.2.33   Almost all local authority representatives (23) reported receiving no funding from the insurance sector for the delivery of road safety interventions. A minority were aware that their local authority did receive funding from the insurance sector for young drivers events (1).

5.2.34   No local authority representatives thought that their authority received funding from either the industry sector or crowd funding for the delivery of road safety interventions.

5.2.35   One third of local authority representatives (8) were aware that their local authority did receive funding from 'other' sources. These included:

- NDORs Surplus;
- Road Safety Foundation;
- TfL;
- Police Services and Police and Crime Commissioners;
- Safety Camera enforcement; and
- Local Road Safety Partnerships.

5.2.36   Over three quarters (19) of local authority representatives reported decreases in road safety funding in the last 5 years, with a smaller minority (1) suggesting increases and the remainder (4) suggesting that funding had stayed the same.

5.2.37   Of those local authority representatives who reported decreases in road safety funding in the last 5 years, the following amounts are reported in Table 5.

SYSTra

Table 5. Percentage decrease of funding in the last 5 years

PERCENTAGE DECREASE	RESPONSE
0-10% decrease	0
11-20% decrease	2
21-40% decrease	5
41-60% decrease	6
61-80% decrease	3
81-100% decrease	2

5.2.38   One local authority representative reported a 25% increase in funding.

5.2.39   The reported estimates for the proportion of funding allocated to road safety which is ultimately and solely used for road safety are outlined in Table 6.

Table 6. Proportion of funding allocated to road safety actually used for this purpose

PROPORTION OF FUNDING	RESPONSE
0-25%	1
26-69%	1
70-100%	19

5.2.40   The reported estimates of the proportion of staff time allocated to road safety which is ultimately spent on road safety tasks and activities is outlined in Table 7.

Table 7. Proportion of time allocated to road safety tasks actually spent on road safety tasks

PROPORTION OF TIME	RESPONSE
0-25%	2
26-69%	4
70-100%	19

5.2.41   Local authority representatives reported differing levels of agreement with the statement, '*investment in evidence-based road safety activity within the local authority is secure*':

- 4   totally agreed;
- 10   mostly agreed;
- 6   partially agreed; and
- 4   disagreed.

SYSTRA

5.2.42   The most commonly reported difficulty in securing investment in evidence-based activity was budgetary and resource constraint.

5.2.43   Asked about the statement *'budgetary pressures have reduced the priority given to road safety more than other local authority activities'*:

- 5   totally agreed;
- 12   partially agreed;
- 5   disagreed; and
- 2   did not know.

5.2.44   Maintenance and statutory duties were reported as areas prioritised over road safety in local authorities. Some local authority representatives reported a total removal of road safety and road improvements budgets, with reliance on partnership and grant funding.

5.2.45   Asked about the statement '*the number of staff to deliver road safety interventions is sufficient'*:

- 1   totally agreed;
- 2   mostly agreed;
- 10   partially agreed; and
- 11   disagreed.

5.2.46   Asked about the statement '*the skills and capabilities of staff to deliver road safety interventions is sufficient*' *:*

- 1   totally agreed;
- 13   mostly agreed;
- 9   partially agreed; and
- 1   disagreed.

5.2.47   There was some concern that skill and capability would be lost due to reduced staff, increased vacancies and underqualified and inexperienced recruits. Increases in funding and ongoing training and continuing professional development (CPD) were thought to be solutions to such concerns.

5.2.48   Local authority representatives explained many ways in which local authorities had been seeking to increase efficiency and make better use of available financial and human resources, most of which came under a Smarter Working policy. These were:

- Enhanced partnership working to share best practice and resources between local authority, regional authority, police services and fire and rescue services and coordinate the delivery of road safety campaigns;
- Greater collaboration with other authority departments, such as central admin, road safety ETP, engineering, maintenance and traffic management to share funding, resource, skills and knowledge and make road safety changes through their projects;
- Investing in better systems, equipment, data and technology, including the use of social media;
- Taking an evidence-based approach;
- Recruiting temporary staff;
- Capitalising staff time;

SYSTRA

- Reviewing delivery, trends and schemes, to ensure that unnecessary work and duplication can be avoided and priorities and functions are clear; and
- Finding additional and new revenue funding schemes to reinvest in road safety services, for instance, charging schools for road safety education.

5.2.49   A few local authority representatives suggested that local authorities were not seeking to increase efficiency and make better use of available resources, or could not do this, due to limited resources in the first instance.

5.3   Advisory Groups, Associations and Charities

Stakeholder Interview Findings

5.3.1   The Safer Roads Fund and its application are viewed very positively, and this change in approach is generally applauded. However, some suggested the way of funding is a missed opportunity to more actively promote Safe System; and it was perceived by representatives that some local authorities have concerns regarding revenue expenditure on maintenance important for implementing Safe System.

5.3.2   Other comments made on road safety funding and resourcing include:

- The loss of the Road Safety Grant in 2009 created shortfalls, particularly regarding investment in 'soft measures';
- Concern was raised over NDORS funding, especially in partnerships where local authorities are contributing the most; and
- Road safety funding should be explicit and ring-fenced.

5.3.3   Many representatives of advisory groups, associations and charities argued that funding for road safety was not at a suitable level, and that KSIs are increasing because of this.

5.3.4   Whilst DfT was considered the provider of financial resource it was noted that they are not fully responsible for road safety delivery.

5.3.5   Representatives acknowledged that whilst the Safer Roads Fund provides a sizeable incentive to improve the safety of roads, not all local authorities were enthusiastic due to concerns about revenue expenditure on maintenance.

5.3.6   There were a number of concerns raised about the responsibility of local authorities to determine the level of funding assigned to road safety. These included:

- The more DfT cascades money the less likely it will be ring fenced for road safety and go to other areas like social care, especially if road safety is not seen as a particular problem by that local authority;
- In the past, when DfT handed out grants for specific road safety activities or improvements, and provided road safety guidance, there were more specialists undertaking road safety education. Since funding has devolved to local government there is less funding for road safety, and so RSOs can only make token efforts in road safety education which are less effective; and
- Initiatives are implemented because of political leadership and local authority pressures and are not based on evidence.

5.3.7   Other comments made by representatives on the role of DfT in road safety funding include:

SYSTra

- Funding that is available and spent on road safety initiatives is not always spent appropriately, with too many knee-jerk reactions, *"politics driving spending, so the spending is not being driven by evidence"*.
- In future grant funding allocations should be framed in the context of Safe System, and it DfT's responsibility to do this;
- Ring-fenced funding for road safety should be restored; and
- Promotional activities should be funded centrally to ensure they happen, for instance the production of leaflets for parents in nurseries about safe car seats.

5.4 Business and Industry

Stakeholder Interview Findings

5.4.1 Business and industry representatives suggested that funding levels for road safety are insufficient, resulting in inadequate resourcing and therefore a reduction in road safety activity. Comments made on road safety funding in business and industry included:

- Additional safety training for HGV drivers would be taken up if funding for additional training was provided;
- Better use of road safety funding needs to be made in order to get more successful outcomes – those delivering road safety activities are not necessarily the most qualified; and
- For manufacturers safety design is a big cost.

5.4.2 Business and industry representatives also noted insufficient funding for road safety in local government, with an awareness that entire road-safety teams have been disbanded in some local authorities, stopping all road-safety activity including road-safety audits, improvement/development schemes, casualty reduction schemes, ETP for children, local publicity campaigns, and support for casualty reduction based speed enforcement. There was a suggestion that allowing local authorities to make decisions on spending, means that limited resources are allocated on a populist basis, rather than prioritising safety.

5.4.3 Comments made by business representatives on DfT's role in funding include:

- DfT is doing as well as to be expected with a limited budget;
- Local authority road safety funding needs to be ring-fenced;
- There should be incentives to encourage attention to safety in vehicle purchasing; and
- Funding could be a lot more stringent if monitoring and evaluation of projects was required.

Fleet Company Survey Findings

5.4.4 Seventeen fleet manager responded to questions on funding in the online survey. Of these:

- 10 agreed/strongly agreed that the number of staff to deliver road safety interventions in their organisation is sufficient and 7 disagreed/strongly disagreed;
- 9 agreed/strongly agreed that the skills and capabilities of staff to deliver road safety interventions is sufficient in their organisation, 7 disagreed/strongly disagreed and 1 did not know.

SYSTra

Road Haulage Company Survey Findings

5.4.5   Four road haulage managers responded to questions on funding in the online survey. Of these:

- ○   3 agreed that the number of staff to deliver road safety interventions is sufficient and 1 disagreed; and
- ○   All 4 agreed that the skills and capabilities of staff to deliver road safety interventions is sufficient in their organisation.

5.5   Emergency Services

Stakeholder Interview Findings

5.5.1   There were a number of road safety funding sources cited by the emergency services, including.

- ○   Government and agency grants;
- ○   NHS trusts budget;
- ○   Precepts from council tax;
- ○   NDORS and independent driver awareness scheme courses;
- ○   Local Authority budgets; and
- ○   County Council budgets.

5.5.2   Funding source was reported to vary by region for the fire service as the level of funding provided for road safety varies depending on how autonomous the fire service is from the local authority and whether the local authority has its own road safety team, or not.

5.5.3   The police, ambulance and fire services all expressed reduced and stretched budgets with regards to road safety, leading to stretched resources. They consider the application process for grants to be a barrier to accessing the funds, due to the limited staff resources – without the staff to apply for the grants the funding is not provided and more staff cannot be hired.

5.5.4   Impacts cited as resulting from lack of funding for road safety included:

- ○   Reduction in road safety education, training and publicity, including in school, for older drivers and for the public more generally;
- ○   Reduction in post-crash care interventions;
- ○   Reduction in front-line police officers; and
- ○   Lack of priority given to road safety if, for example, crime issues need addressing.

5.5.5   Suggestions given for overcoming the funding barriers included:

- ○   Levies on motor or insurance industries, used to fund road safety activity;
- ○   Increasing the number of community support volunteers (however currently there are inadequate numbers of staff to support those that want to volunteer); and
- ○   Appropriate allocation of funding to the services that are best placed to deliver specific road safety interventions.

Police Force Survey Findings

5.5.6   Twelve police force representatives responded to questions on funding in the online survey.

SYSTRA

5.5.7   Whilst 10 representatives cited that they received funding from the police, and 5 cited the Home Office, other sources (each cited by less than 5 representatives) were:

- DfT;
- Other central government departments;
- NDORS course surplus;
- Local authority budget;
- Local road safety partnership budget;
- Insurance sector;
- Crowd funding;
- Health sector;
- Trusts/charitable sources; and
- EU project funding.

5.5.8   One police force representative suggested that a lack of time and resource makes access to funding difficult.

5.5.9   Reported changes to road safety funding over the last 5 years were as follows:

- None reported an increase in funding;
- 3 reported that funding had stayed the same; and
- 9 reported a decrease in funding.

5.5.10   Most who reported a decrease did not know the exact percentage that funding had decreased by. However, of those who did provide an estimate, their responses ranged between a 20% and 50% reduction, and over 50% reduction in funding.

5.5.11   Whilst seven police force representatives did not know the proportion of funding allocated to road safety which is ultimately used solely for road safety, five provided an estimate. These estimates ranged from 80-100%.

5.5.12   Estimates of the proportion of staff time allocated to road safety, ultimately used on road safety activities and tasks is outlined in Table 8.

Table 8. Proportion of time allocated to road safety tasks actually spent on road safety tasks

PROPORTION OF TIME	RESPONSE
0-25%	4
26-69%	0
70-100%	4
Did now know	4

5.6   Academic Institutions

Stakeholder Interview Findings

5.6.1   Academic institutions pointed to a lack of government funding for research and development in road safety and noted that road safety is often seen as the poor cousin to other national issues, which are difficult to prioritise funding for.

SYSTRA

5.6.2   Funding sources that were cited include:

- EU HORIZON research programme;
- Innovate UK;
- UK car industry led consortium; and
- Road Safety Trust.

5.6.3   Other comments made on road safety research funding include:

- Funding for group projects increasingly comes from the private sector;
- As a multi-disciplinary subject, it becomes increasingly difficult to see where road safety research sits in the funding landscape; and
- Government procurement of road safety activity, namely the HE SPATs framework, makes it difficult to ensure continuity of road safety research capacity.

5.6.4   Other comments made on road safety funding include:

- Government priority appears to be funding on rail, rather than road;
- Targets are required in order to make strong business cases for road safety funding;
- The UK is more systematic than others in terms of conducting economic appraisals of road safety initiatives; and
- Focus for road safety funding should not be solely on the strategic road network, as other roads have higher risks of death and serious injury.

SYSTRA

6. INSTITUTIONAL MANAGEMENT FUNCTION: PROMOTION

6.1 Central Government Departments/Agencies

Stakeholder Interview Findings

6.1.1 Central government departments and agencies consider the THINK! campaign, run by the Department for Transport (DfT), to be the main channel through which road safety messages are promoted by government, and through which both national and local messages are delivered. There are tie-ins with the THINK! campaign across DfT divisions.

6.1.2 Recently the THINK! campaign has been seeking to target road safety promotion more intelligently, with a narrower range of campaigns, for example using an innovative Snapchat filter to mimic the effect of drug use, with the aim of engaging teenagers.

6.1.3 Some DfT divisions also tie in with the police operations calendar (itself coordinated with TISPOL, the European Traffic Police Network), or police-led road safety campaigns.

6.1.4 Other comments made relating to government promotion of road safety include:

- There is activity at local government level to promote cycling;
- There is interest in promoting DfT road safety activity internationally, for example through road safety conferences;
- Promotion occurs through road safety interventions; and
- Approach to vehicle safety as a strategy has been reactive, rather than proactive, which has led to little promotion of vehicle safety.

6.2 Local Government

Stakeholder Interview Findings

6.2.1 Some local government representatives noted that road safety is promoted across agencies within local government.

6.2.2 Other comments relating to local government promotion of road safety include:

- Promotion of road safety activity is often tied-in with police calendars and campaigns;
- Interventions themselves act as road safety promotion;
- Promotion of safety engineering could be improved at local authority level, in comparison with promotion in other areas of road safety; and
- There is growing use of social media to promote road safety.

6.2.3 Comments made by local government representatives on the DfT's role in road safety promotion include:

- The THINK! campaign requires better organisation;
- DfT are not appearing to be proactive with road safety;
- There are no centralised campaigns for local authorities to run; and
- No guidance is provided on how to promote Safe System within local authorities.

SYSTra

Road Safety Officer Survey Findings

6.2.4   Thirty RSOs responded to questions on promotion in the online survey.

6.2.5   RSOs reported that road safety was promoted across local authorities and locally using the following methods:

- Social media;
- Newsletters, particularly within schools;
- Face to face engagement, education and events, particularly within schools;
- Outsourcing to community groups and third parties;
- Publication of data and reports;
- The council website;
- Through a Road Safety Partnership;
- In broadcast and print media;
- At the roadside or bus-back posters and signs; and
- Word-of-mouth.

6.2.6   Differing levels of agreement with the statement *'road safety is well promoted across the local authority'*, were reported by RSOs:

- 2   totally agreed;
- 10   mostly agreed;
- 11   partially agreed;
- 6   disagreed; and
- 1   did not know.

6.2.7   Asked about the statement *'road safety is well promoted by the local authority to external stakeholders and the public'*:

- 1   totally agreed;
- 9   mostly agreed;
- 13   partially agreed;
- 6   disagreed; and
- 1   did not know.

6.2.8   It was recognised that promotion could be improved, especially with increased human resource.

6.2.9   When considering the statement *'the Safe System approach is promoted by the local authority locally – to professionals, policymakers and the community'*:

- 0   totally agreed;
- 2   mostly agreed;
- 8   partially agreed;
- 15   disagreed; and
- 5   did not know.

6.2.10   Many RSOs suggested that the Safe System approach was to be integrated into their local authority strategy or was already reflected in local authority practices.

6.2.11   RSOs suggested that road safety promotion could be improved through the following processes:

SYSTRA

- Greater time, resource and funding, especially for road safety education campaigns within schools;
- Increasing the priority given to road safety and encouraging support from senior management and politicians;
- Better use of media, for instance, targeted advertising campaigns and social media development;
- Creation of self-help resource for local authorities; and
- Greater coordination between local authorities and the police and fire and rescue service, with the suggestion that road safety promotion activities should be devised at a national or regional level and sold to delivery bodies to implement. This would reduce development costs.

6.2.12 Asked whether *'the national lead agency for road safety (the DfT) carries out its lead agency functions effectively':*

- 0 totally agreed;
- 28 mostly or partially agreed;
- 3 disagreed; and
- 1 did not know.

6.2.13 Those who agreed cited DfT's effectiveness in:

- Recognition of lack of funding;
- Communication and publication of initiatives, recently; and
- Decentralisation processes, which have improved public services, reduced bureaucracy and increased funding control.

6.2.14 However, there was some concern around:

- The disconnect between national and local delivery and priorities, which means local authorities are not closely aligned with DfT;
- The lack of coordination by DfT between parties with an interest in road safety, such as local authorities and the fire service;
- The lack of priority given to road safety in government policy;
- The lack of experience and interest of DfT staff; and
- Decentralisation processes, which have created a silo mentality in local government, producing variability in performance, low prioritisation and reduction in resource.

6.2.15 In some cases, other agencies, such as local transport bodies, were seen and reported as the lead agency for road safety.

Local Authority Survey Findings

6.2.16 Twenty three local authority representatives responded to questions on promotion in the online survey.

6.2.17 Generally, local authority representatives reported that road safety was promoted across local authorities and locally using the following methods:

- Social media;
- Newsletters;

SYSTRA

- Face to face engagement, education, cycle and pedestrian training and events, particularly within schools;
- E-learning;
- Publication of data and reports;
- The council website;
- Through a Road Safety Partnership;
- In broadcast and print media;
- Through internal magazines and intranets;
- Using posters and signs; and
- National road safety calendar campaigns.

6.2.18 There was some concern from local authority representatives that a lack of resource acted as a hindrance to the promotion of road safety.

6.2.19 Differing levels of agreement with the statement *'road safety is well promoted across the local authority'* were reported by local authority representatives:

- 1   totally agreed;
- 11   mostly agreed;
- 10   partially agreed; and
- 1   disagreed.

6.2.20 Similar levels of agreement with the statement *'road safety is well promoted by the local authority to external stakeholders and the public'* were reported:

- 2   totally agreed;
- 11   mostly agreed;
- 7   partially agreed; and
- 3   disagreed.

6.2.21 Road Safety promotion was often cited as the responsibility of road safety partnerships. It was recognised that promotion could be improved, especially with increased funding and resource.

6.2.22 When asked about the statement *'The Safe System approach is promoted by the local authority locally – to professionals, policymakers and the community'*:

- 1   totally agreed;
- 2   mostly agreed;
- 8   partially agreed; and
- 13   disagreed.

6.2.23 A number of local authority representatives suggested that the Safe System approach was planned to be integrated and then promoted by their authority or road safety partnership, however, there was some concern about the lack of understanding and guidance surrounding Safe System principles and how they should be promoted.

6.2.24 local authority representatives suggested that road safety promotion could be improved through the following processes:

- Greater time, resource and funding, with the development of dedicated road safety teams, and road safety communications and data staff;

SYSTRA

- ○ Increasing the priority given to road safety and encouraging support from partnership members;
- ○ Better use of social media;
- ○ Improved website;
- ○ Better education, engineering and enforcement integration;
- ○ The use of national advertising campaigns;
- ○ Improved legislation;
- ○ The introduction of targets;
- ○ Clear leadership, direction and support; and
- ○ Greater coordination between local authorities and the health sector, police and the fire and rescue services.

6.2.25 Levels of reported agreement with the statement *'the national lead agency for road safety (the DfT) carries out its lead agency functions effectively'* were:

- ○ 1 totally agreed;
- ○ 6 mostly agreed;
- ○ 14 partially agreed;
- ○ 2 disagreed; and
- ○ 1 did not know.

6.2.26 Positive examples provided of DfT carrying out the lead agency function effectively included:

- ○ THINK! campaign;
- ○ National road safety campaign calendar;
- ○ National advertising;
- ○ Safer Roads Fund;
- ○ Promotion of iRAP systems;
- ○ Production of data; and
- ○ Road Safety Newsletter.

6.2.27 Across all respondents, regardless of level of agreement, there was concern about:

- ○ The disconnect between national and local delivery and priorities, which means local authorities are not an extension of DfT;
- ○ Poor communication and circulation of knowledge by DfT;
- ○ Poor attendance and direct feedback from DfT staff at regional road safety meetings; and
- ○ Lack of guidance and research on road safety interventions.

6.2.28 In some cases, other agencies, such as Road Safety GB, the National Fire Chiefs Council (NFCC) and the National Police Chiefs Council (NPCC), were cited as having a lead agency role.

6.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

6.3.1 Some advisory groups promote road safety, including safe roads and roadsides and Safe System, to Ministers, policymakers and practitioners, in presentations and guidelines.

SYSTRA

6.3.2   As with other stakeholders, representatives of advisory groups also share the view that road safety is promoted through interventions.

6.3.3   Comments made by representatives of advisory groups, associations and charities on the DfT's role in road safety promotion include:

- DfT does not appear to be championing the Safe System approach;
- Awareness of penalties needs to be raised centrally, so people know they will be caught for bad behaviour on the roads;
- DfT could do more to promote good practice within organisations and businesses e.g. with professional application of road safety innovation;
- DfT should run centrally organised road safety campaigns;
- The national lead is not setting a good example, for example Chris Grayling did not mention road safety once during his speech at the Conservative party conference (2017), and therefore it is not prioritised further down the line; and
- The THINK! campaign is excellent at promoting responsible road use; it is effective and well understood but does not have as much funding as it used to.

6.4   Business and Industry

Stakeholder Interview Findings

6.4.1   Business and industry membership organisations cited a number of different methods by which they promote road safety to their members. These include:

- Promoting road safety through compliance guidance and membership policies;
- Promoting 'best practice' on other factors which incorporate elements of road safety, including: reducing costs, improving efficiency, funding sources, supply chain practices, accident management, environmental responsibility, and management responsibility;
- Advocating autonomous/connected vehicles to increase road safety; and
- Running forums promoting safety standards for autonomous vehicles and encouraging development on international regulation.

6.4.2   Representatives of business and industry generally considered that the DfT does not promote road safety, with the exception of providing information on the number of people killed and seriously injured in road traffic accidents. However, some representatives suggested that the DfT does promote road safety, but that the onus is on individual organisations to find it. Some representatives also made positive comments on the THINK! campaign.

Fleet Company Survey Findings

6.4.3   Seventeen fleet company representatives responded to questions on promotion in the online survey. Of these:

- 13 agreed/strongly agreed that road safety is well promoted across their organisation, 4 did not; and
- 9 agreed/strongly agreed that road safety is well promoted by their organisation to external stakeholders and the public, and 8 disagreed/strongly disagreed.

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Road Haulage Company Survey Findings

6.4.4   Four road haulage representatives responded to questions on promotion in the online survey and all 4 agreed/strongly agreed that road safety is well promoted across their organisation.

    ◯   2 agreed that road safety is well promoted by their organisation to external stakeholders and the public, and 2 disagreed.

6.5   Emergency Services

Stakeholder Interview Findings

6.5.1   Emergency service representatives cited the importance of promoting road safety through interventions.

6.5.2   Other channels through which road safety is promoted by emergency services include:

    ◯   Social media;
    ◯   Radio adverts;
    ◯   Newsletters;
    ◯   Promotional booklets/leaflets;
    ◯   Events;
    ◯   Dedicated Accident Reduction Officer in post;
    ◯   Vehicle Risk Management Group;
    ◯   Driver Training School;
    ◯   Operational links with partners for road safety; and
    ◯   National Accident Reduction Group which consists of all Ambulance Trusts and motor insurers and brokers.

6.5.3   Suggestions made for strengthening promotion of road safety include:

    ◯   Dedicated meeting with partners;
    ◯   Development of a single point of contact; and
    ◯   Improvements to consistency of approach.

6.5.4   Whilst some emergency services consider that road safety is promoted well by the DfT through the THINK! campaign, a few are uncertain as to how DfT promotes road safety, and consider that DfT only partially carries out its lead agency function in promotion effectively.

Police Force Survey Findings

6.5.5   Eleven police force representatives responded to questions on promotion in the online survey.

6.5.6   A variety of methods were reported by police force representatives to promote road safety, including:

    ◯   Via Local Authorities;
    ◯   Through technology (Email, Social Media);
    ◯   National campaigns;
    ◯   Local Road Safety Partnerships;
    ◯   Internal Communications (SPOC's, Magazines, Intranet);

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- Through traditional media (e.g. press interviews);
- Presentations to interested parties;
- Visible activity on the roads;
- Education programmes (Schools, Vulnerable groups); and
- PCC Office.

6.5.7 When asked for their level of agreement with the statement, *'road safety is well promoted across the police force'*:

- 1 totally agreed;
- 3 mostly agreed;
- 6 partially agreed; and
- 1 disagreed.

6.5.8 When asked whether *'road safety is well promoted by the police force to external stakeholders and the public'*:

- 1 totally agreed;
- 6 mostly agreed; and
- 4 partially agreed.

6.5.9 Respondents who were aware of the Safe System approach were asked whether their force promotes Safe System locally to professionals, policymakers and the community:

- 1 mostly agreed;
- 2 partially agreed; and
- 2 disagreed.

6.5.10 Suggestions offered to improve the promotion of road safety included:

- Increasing resources and funding;
- Increasing 'visibility of policing';
- Using media and communication channels;
- Aligning road safety strategies with partners and PCC offices; and
- Changing the emphasis of promotion materials (e.g. more people killed on the roads than victims of homicide, extra emphasis on road safety).

6.5.11 However, one respondent felt differently, stating:

> *"I don't think the promotion is the issue, its simply the time available to commit to it given the competing priorities and excessive demand elsewhere such as response and investigations policing".*
>
> (Police force representative)

6.5.12 Levels of reported agreement with the statement, *'the national lead agency for road safety (the DfT) carries out its lead agency functions effectively'* were:

- 1 totally agreed;
- 1 mostly agreed
- 8 partially agreed; and
- 2 did not know.

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6.5.13   The DfT was seen:

- As providing a lack of national imperative;
- To have limited interaction; and
- More effective as an engineering lead than as an enforcement and education lead.

6.6   Academic Institutions

Stakeholder Interview Findings

6.6.1   Academic institutions do not consider themselves to have a specific role in the promotion of road safety.

SYSTRA

7. INSTITUTIONAL MANGEMENT FUNCTION: MONITORING AND EVALUATION

7.1 Central Government Departments/Agencies

Stakeholder Interview Findings

7.1.1 STATS19 is considered the key source of data for monitoring trends in road collisions, including the types of vehicles involved, the road environment and casualties. Shortcomings of the STATS19 system were identified by some central government department and agency representatives (for example under reporting of journey purpose), and some consider there is over-reliance on the data for understanding crashes, their causes and outcomes. A review of STATS19 is scheduled, however those involved consider that it may need input from those that have worked with the data for longer.

7.1.2 Other sources of data used by DfT and its agencies for monitoring and evaluating include:

- Workforce injury statistics;
- National Institute of Liaison Officers (NILOs) projection/forecast data;
- iRAP system, which is being rolled out in local authorities, although difficulties have been identified; and
- Traffic volume data.

7.1.3 Comments made by government and agency representatives, relating to road safety data collection, include:

- There is no systematic compilation, storage and analysis of the range of data needed to inform road safety and a Safe System approach;
- Data analysis that does occur can be reactive due to limited capacity;
- Various surveys are carried out, such as examining mobile phone use and seat belt use, however the data is held by different divisions or government departments in a siloed manner, and more joint survey working across the UK should be conducted on performance indicators;
- The mix of national crash reporting databases and methodologies is of concern, although this is considered resolvable;
- There is a lot of data available across government, however too little analysis is conducted on it and collision data fails to inform policy decisions;
- Data is published too long after collection making it difficult to get interest when the figures are released late into the year;
- There is uncertainty from some as to whether DfT has the tools to understand why collisions and injuries are occurring, despite a good evidence base; and
- There is support for RAIDS collision investigation work, with the acknowledgement that smaller samples and less funding limit scope and analysis.

7.1.4 There is support for the Collision Recording And Sharing project (CRASH) across DfT, although it was acknowledged that it is currently experiencing transitional problems and has only been taken up by around half of police forces. DfT and agency representatives reported that CRASH will move to DfT ownership who will supply it free of charge to all police forces. Local authorities will also have access to non-personal data.

7.1.5 There were mixed views regarding the setup of a separate Collision Investigation Branch or enhanced investigation arrangements, with many divisions having an open mind to its

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possibility. The importance of understanding the function of any new arrangement rather than its structure was underlined.

7.1.6 DfT and agency representatives noted that a road death investigation process is being set up by Highways England, which will look to assess clusters of damage in order to identify infrastructure problems before injury occurs. They also noted that an evaluation of the Safer Roads Funds process and outcomes has been commissioned. However, there is concern that there is no overarching programme to:

- Develop an evidence base for future priorities, for example defining data needs to implement a Safe System approach;
- Evaluate the effectiveness of interventions;
- Undertake cost-benefit analysis; and
- Understanding how modern technologies are used in the real-world and how they modify road user behaviour.

7.2 Local Government

Stakeholder Interview Findings

7.2.1 Local government representatives highlighted limited measurement and monitoring of road safety as an issue. They considered there to be a lack of routine monitoring of key safety issues beyond KSIs, such as compliance with speed limits and seat belt use. Lack of monitoring of partners' activities, for instance the fire service, was also highlighted as a concern.

7.2.2 Monitoring and evaluation that does occur at local authority level includes safety auditing for road safety engineering schemes, and road user analysis to identify groups at particular risk. Representatives noted that evaluating the effectiveness of engineering schemes is easier than monitoring the effectiveness of behavioural change projects, however behaviour change is important and not impossible to measure with appropriate time and funding.

7.2.3 Some local government representatives felt that the introduction of the CRASH project was positive, however, a number of concerns were raised. These included:

- The project has been poorly executed and improvements do not occur quickly enough, for instance the latest update is 18 months overdue;
- Data accuracy is poor, particularly in relation to location;
- The roll out of hand-held devices for police will not improve accuracy as there will be less consistency in the data entry process; and
- The implementation of CRASH has led to, or is expected to lead to a 20% increase in reported KSIs.

Road Safety Officer Survey Findings

7.2.4 Twenty eight RSOs responded to the questions on monitoring and evaluation in the online survey.

7.2.5 RSOs reported differing levels of agreement with the statement '*regular surveys are carried out locally to measure performance*':

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- O   1   totally agreed;
- O   3   mostly agreed;
- O   11   partially agreed;
- O   7   disagreed; and
- O   6   did not know.

7.2.6   Commonly conducted surveys were safety ratings of roads and user compliance. There was some concern that although emergency medical response times were measured, the data was not shared with local authorities.

7.2.7   RSOs reported differing levels of agreement with the statement *'systematic measurement and evaluation of local interventions, to prevent KSIs, are undertaken locally'*:

- O   7   totally agreed;
- O   5   mostly agreed;
- O   11   partially agreed; and
- O   5   disagreed.

7.2.8   One RSO suggested that evaluation is conducted annually and another suggested that this was often the responsibility of analysts. Additionally, one RSO suggested that evaluation relied on resource availability and the assistance of academics, with a concern from another that less evaluation is carried out for interventions delivered by external partners.

7.2.9   Asked about the statement *'regular performance reviews are conducted to assess progress and guide improvement locally'*:

- O   4   totally agreed;
- O   5   mostly agreed;
- O   9   partially agreed;
- O   9   disagreed (with the suggestion that performance management is not prioritised due to the absence of national and local targets); and
- O   1   did not know.

7.2.10   Asked about the statement *'surveys and other research exploring public attitudes to road safety are conducted locally'*:

- O   3   totally agreed;
- O   2   mostly agreed;
- O   11   partially agreed;
- O   11   disagreed; and
- O   1   did not know.

7.2.11   Some of those who disagreed suggested that this was due to lack of resource. There was some recognition for national survey initiatives, such as the annual National Highways and Transportation Network (NHT) Survey.

7.2.12   Asked to consider the statement *'national databases and surveys support local activity'*:

- O   4   totally agreed;
- O   7   mostly agreed;
- O   12   partially agreed;

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- ○ 4 disagreed; and
- ○ 1 did not know.

7.2.13 There was some suggestion that local authorities rely on and use third party surveys, data sets and intelligence, and a recommendation that STATS19 could be improved**.**

7.2.14 RSOs suggested that monitoring and evaluation of road safety interventions could be improved through the following processes:

- ○ Greater time, resource and funding for data measurement, collation, analysis, monitoring and reporting;
- ○ Ability to conduct longitudinal monitoring, through increased resource and funding;
- ○ Increasing the priority given to monitoring and evaluation, particularly for certain road safety interventions, such as education, training and publicity;
- ○ Better data quality and data collection training, namely for STATS19 and missing data;
- ○ A better understanding of the data needed to inform the Safe System approach; and
- ○ Greater coordination and harmonisation of local authorities, police, health/ hospitals, insurance and fire and rescue service data. One RSO suggested that their local authority was attempting to harmonise police and local authority data by creating a cloud-based collision mapping database.

Local Authority Survey Findings

7.2.15 Twenty three local authority representatives responded to questions on monitoring and evaluation in the online survey.

7.2.16 Asked to consider the statement, *'regular surveys are carried out locally to measure performance'*:

- ○ 0 totally agreed;
- ○ 4 mostly agreed;
- ○ 12 partially agreed;
- ○ 1 disagreed; and
- ○ 6 did not know.

7.2.17 Commonly conducted surveys included the monitoring of casualties, road safety ratings and length analysis, and regular scheme effectiveness evaluations, including evaluations of education, training and publicity outcomes.

7.2.18 Most local authorities at least partially agreed with the statement, 's*ystematic measurement and evaluation of local interventions, to prevent KSIs, are undertaken locally'*:

- ○ 6 totally agreed;
- ○ 7 mostly agreed
- ○ 9 partially agreed; and
- ○ 1 did not know.

7.2.19 Of those who do conduct systematic measurements and evaluations, the evaluation of routes and collision sites, usually conducted annually as part of scheme monitoring processes, was reported. There was some concern that evaluation relied upon

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intervention value. A number of local authority representatives suggested that systematic measurement and evaluation of interventions may be conducted in the future.

7.2.20   Asked about the statement, *'regular performance reviews are conducted to assess progress and guide improvement locally'*:

- 4   totally agreed;
- 8   mostly agreed;
- 10   partially agreed; and
- 1   disagreed.

7.2.21   There was some suggestion that more performance reviews, to assess progress and guide improvement locally, were planned for the future.

7.2.22   Local authority representatives reported differing levels of agreement with the statement *'surveys and other research exploring public attitudes to road safety are conducted locally'*:

- 1   totally agreed;
- 8   mostly agreed;
- 8   partially agreed;
- 5   disagreed; and
- 1   did not know.

7.2.23   There was some suggestion that surveys exploring public attitudes to road safety were being conducted locally by Road Safety Partnerships**.**

7.2.24   Asked to consider the statement 'n*ational databases and surveys support local activity*':

- 2   totally agreed;
- 10   mostly agreed;
- 9   partially agreed; and
- 2   disagreed.

7.2.25   Some representatives reported that local authority engineers use third party data sets such as STATS19, and indicated that the use of such national databases and surveys was something planned for the future.

7.2.26   Local authority representatives suggested that monitoring and evaluation of road safety interventions could be improved through the following processes:

- Greater time, resource and funding for data measurement, collation, analysis, monitoring and reporting, with the suggestion that academics be involved;
- Increasing the priority given to monitoring and evaluation;
- Improving evaluation of behavioural change techniques, such as education, training and publicity;
- Better data collection and reporting for STATS19 data; and
- Greater coordination across road safety partners to ensure all partners adopt common methodologies and approaches.

7.2.27   There was some concern that monitoring and evaluation may always be challenging, due to difficulties with evidencing lives saved and collisions avoided.

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7.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

7.3.1 Representatives from advisory groups, associations and charities raised a wide range of points relating to monitoring and evaluation of road safety. These include:

- There is concern surrounding the delay in access to STATS19 data from 2016, and on major staffing changes within the DfT's statistics division which may have caused this;
- They considered there to be a strong case for a Road Collision Investigation Branch as there is a need for a broader focus on fatal and serious collision injuries (rather than on establishing blame), more rigorous data collection, and more rigorous fatality investigation;
- There is a need for the collection of data on indicators that support a Safe System approach, linked to the prevention of death and serious injury;
- The impact of 'input measures', put in place to address road safety, should be evaluated, e.g. the impact of investment in infrastructure, and the impact of increases in number of police officers on the road;
- The focus on road safety monitoring and evaluation is on negative outcomes, rather than celebrating the high levels of safety compliance;
- There is uncertainty as to how the change in serious injury definition at EU level is being handled;
- The publishing of risk maps, showing the rates of KSIs on Britain's roads over consecutive data periods, is supported;
- Evaluation of educational initiatives is considered poor, in part because it is difficult and requires longitudinal studies, however it is still considered worthwhile and necessary; and
- Lack of funding is considered to have resulted in less collision investigation and inability to take action when the need is identified.

7.4 Business and Industry

Stakeholder Interview Findings

7.4.1 Little monitoring of road safety processes or outcomes within business and industry was reported by representatives. Monitoring undertaken that is connected to road safety includes:

- Insurance industry premium statistics – this could be used to inform road safety but is mainly fed to government as an indicator of industry performance; and
- Checks that vehicles are compliant with safety legislation.

7.4.2 Suggestions made for improving monitoring and evaluation include:

- Harmonising international (European and United Nations) collision data; and
- Recording the effectiveness of active safety features, e.g. recording when a collision has been avoided because automatic breaking was triggered. This could be used to gain public acceptance and therefore increased uptake of safety features.

7.4.3 Some business and industry representatives suggested that the DfT does not undertake enough monitoring and evaluation of their road safety activities. It was also suggested

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that DfT should be more aware of what monitoring and evaluation other organisations are doing to avoid replication of government work.

7.4.4 Business and industry representatives suggested that monitoring and evaluation undertaken by Highways England is effective, as upon entering into a project with them organisations are made aware of the reporting mechanisms, project goals, and 'critical friends' who are engaged in monitoring and auditing their services.

Fleet Company Survey Findings

7.4.5 Seventeen fleet company managers responded to questions on monitoring and evaluation in the online survey. Of these, within their organisations:

- 13 systematically collect information on road safety incidents, accidents and injuries involving the organisation;
- 12 routinely monitoring driver compliance with rules for speed, alcohol, use of drugs, seat belts and in-vehicle telephone use whilst driving;
- 10 monitor safety performance indicators;
- 9 set safety performance indicators;
- 9 use telematics to monitor driving performance;
- 8 regularly conduct road safety management performance reviews to assess progress and guide improvement within their organisation;
- 5 have long term goals and interim targets for preventing KSIs;
- 4 have a strategy for addressing the number of KSI's in road traffic accidents;
- 3 indicated national databases and surveys support their activity; and
- None have adopted BSI ISO 39001 for road traffic safety management systems.

Road Haulage Company Survey Findings

7.4.6 Four road haulage company managers were asked questions on monitoring and evaluation in the online survey. Of these:

- 3 monitoring safety performance indicators;
- 3 systematically collect information on road safety incidents, accidents and injuries involving the organisation;
- 3 routinely monitoring driver compliance with rules for speed, alcohol, use of drugs, seat belts and in-vehicle telephone use whilst driving;
- 2 use telematics to monitor driving performance; and
- 1 regularly conducts road safety management performance reviews to assess progress and guide improvement within their organisation.

7.4.7 The following initiatives were not adopted by any of the organisations:

- A strategy for addressing the number of KSIs in road traffic accidents;
- The setting of safety performance indicators;
- The setting of long-term goals and interim targets for preventing KSIs;
- The adoption of ISO 39001; and
- The use of national databases and surveys to support the activity of the organisation.

SYSTRA

7.5 Emergency Services

Stakeholder Interview Findings

7.5.1 Representatives of the emergency services cited the following forms of monitoring and evaluation within their own and other organisations:

- Ambulance response times are monitored;
- Clinical outcomes are recorded, including KSIs;
- KSI statistics and trends are monitored by area, including correlation between KSIs and driver attitude, road infrastructure and signage;
- Education performance indicators are recorded, e.g. the number of road safety education sessions delivered;
- Post-crash monitoring is undertaken through the incident recording system which archives what type of crash has happened, if there were any injuries and what these were, and the emergency service response;
- Where a road collision is identified as needing trauma care, data recorded includes: vehicle type, location in the vehicle (front or back), seatbelts use, helmet use for motorbike users, and time taken for the ambulance to arrive (or time from 999 call if difficult to ascertain).
- Internal feedback sessions are given as part of road safety partnerships;
- Subscriptions from various other organisations, such as the Institute of Traffic Accident Investigators Periodical, provide valuable information on monitoring and evaluation;
- The effectiveness of driver awareness courses are measured using self-reported questionnaires; and
- Questionnaires are used to understand views on signage specially for motorcycles.

7.5.2 They highlighted evaluation of road safety education initiatives as an important area for improvement, although it was acknowledged that it difficult to ascertain which education initiatives have been effective.

7.5.3 There was support expressed for CRASH, whilst recognising initial problems with its implementation. It was considered that the process of DfT taking control of CRASH will encourage more police forces to adopt it.

Police Force Survey Findings

7.5.4 Eleven police force representatives responded to questions on monitoring and evaluation in the online survey.

7.5.5 When asked whether '*regular surveys are carried out locally to measure performance*':

- 1 totally agreed;
- 1 mostly agreed;
- 3 partially agreed;
- 1 disagreed; and
- 5 did not know.

7.5.6 Additionally, a broad range of responses were obtained from police force representatives with regards to the statement '*regular performance reviews are conducted to assess progress and guide improvement locally*':

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- ○ 1 totally agreed;
- ○ 1 mostly agreed;
- ○ 4 partially agreed;
- ○ 1 disagreed; and
- ○ 4 did not know.

7.5.7 Finally, differing levels of agreement were reported by police force representatives for the statement, *'national databases and surveys support police enforcement activity'*:

- ○ 0 totally agreed;
- ○ 1 mostly agreed;
- ○ 4 partially agreed;
- ○ 3 disagreed; and
- ○ 3 did not know.

7.5.8 A further comment was made by one respondent, who suggested that despite the data analysis undertaken by police sub-units, there was little guidance from regional or national databases.

7.5.9 Some representatives offered suggestions for how monitoring and evaluation could be improved within their police force. Their responses were as follows:

- ○ Increase analytical capacity;
- ○ Implement a Casualty Reduction Team; and
- ○ Performance indicators are required (as evaluation cannot take place without them).

7.5.10 One representative made a positive comment regarding the current monitoring and evaluation strategy within their police force: *"It is currently very good with bi monthly meetings to review enforcement plans"*.

7.5.11 For monitoring of speed interventions in particular, six police force representatives offered estimated proportions for speed awareness course attendance, versus penalty points acceptance. These ranged from 55% to 80%.

7.6 Academic Institutions

Stakeholder Interview Findings

7.6.1 Academic representatives identified a number of areas where monitoring and evaluation is needed, or where it could be improved. These included:

- ○ A systematic evaluation of the safety of new vehicle technology is required;
- ○ All fatalities should be investigated independently and by combining police investigation data and coroner data;
- ○ Improved and systematic monitoring of safety performance indicators is required, including seat belt compliance, mobile phone use and road quality;
- ○ Opportunities afforded by electronic data recorders fitted in vehicles needs to be explored for better understanding of collision data and the operation of vehicle systems;
- ○ There is a need for combined transport and health sector data;
- ○ More data on safety performance indicators are needed;
- ○ Better work-related road safety data is needed;

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- More exposure data is required than is provided in the National Travel Survey;
- There is value of increased disaggregation of risk-exposure measures; and
- The sample sizes of the RAIDS collision investigation data are too small to generate useable information, and could be extended.

7.6.2 A number of comments were made with regard to STATS19:

- There were concerns over the delay in STATS19 data for 2016;
- There was a general concern over the quality of data provided;
- Data on contributory factors were highlight as problematic, since they are based on intuitive and flawed understandings of collision causation, especially around loss of control and speed factors;
- There was concern that the accuracy of journey purpose reporting is not verified;
- It was suggested that STATS19 needs to take electronic systems and GPS into account to improve efficiency;
- The inclusion of driving license numbers was suggested as it was considered helpful for user standard and compliance research; and
- Better location mapping, severity coding and junction crash coding was also suggested.

7.6.3 The general consensus amongst the academic institution representatives is that a Collision Investigation Branch, whilst fine in principle, would not be necessary if the above suggestions for improvements took place.

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8.   INSTITUTIONAL MANAGEMENT FUNCTION: RESEARCH & DEVELOPMENT

8.1   Central Government Departments/Agencies

Stakeholder Interview Findings

8.1.1   Within the Department for Transport (DfT) both the research budget and research strategy are managed centrally. There is considered to be a much-restrained budget in comparison with previous years (reported to be less than 50% of the total research budget 10 years ago).

8.1.2   The RULIS branch drives road safety research and has an annual budget of £2million, with the main type of research project relating to evaluation or filling evidence gaps. Researchers working within RULIS procure and manage RULIS research.

8.1.3   Road safety research that is currently being undertaken by DfT, cited by government departments and agencies, includes:

- Driver 2020: Young driver research (largest current research project), coordinated by TRL, testing five interventions to reduce young driver collision risk.

    - Pre-test hazard perception training;
    - Pre-test log-books for learners, where hours of driving are recorded;
    - Post-test checkpoints - a voluntary agreement between parent and driver about when to drive, e.g. driving at night and length of driving experience. An on-line log book is kept;
    - The use of telematics post-test, with ideas around feedback and incentives being explored; and
    - Pre-test educational intervention with young learner drivers, as opposed to with schoolchildren.

- Research relating to features that affect vulnerable road user safety, e.g. 20mph limits, motorcycle protective airbag jackets; and
- An evaluation of the Safer Roads Fund.

8.1.4   Previous research studies that have been undertaken by DfT or its agencies, cited by central government departments and agencies, include:

- Research into fatal crashes on the road network; and
- Research to establish any correlation between those involved in less serious driving offences, and those later causing death by dangerous driving, in order to identify likely offenders (no relationship was found).

8.1.5   The process of procuring research was identified as a difficulty by government representatives. Specifically, the SPATS framework was described as having a limited number of organisations on the framework and a large case needs to be built if a procurement route, other than a framework, is needed. Additionally, procurement of research using SPATS can require considerable staff resources, and can take up to six months to let an otherwise urgent contract. However, it was also noted that 'lower value' work can be procured differently through call-off contracts.

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8.1.6   Difficulties and deficiencies relating to research and development of road safety activities, identified by central government and agency representatives, include the following:

- A review of road safety research needs to meet Safe System needs has not been carried out;
- There is no formal external expert advisory committee to advise on priorities for road safety research;
- Whilst there are links between DfT divisions, engagement on road safety research is not systematic.
- There is limited engagement with international bodies, such as OECD, due to time and financial constraints;
- There is inadequate involvement of devolved authorities in UK road safety research strategy and project definition;
- There are concerns and restrictions in relation to data sharing, with stakeholders citing difficulty with sharing with the DVLA;
- There is concern about reliance on DfT road safety statistics to monitor performance in KSIs because a number of police forces have changed how they collect data, thus creating inconsistencies – hence data predictions and calculations for KSIs cannot be accurate;
- There are difficulties in undertaking research to analyse casualty data in order to identify the effect of interventions. This is because deaths may have decreased due to better vehicles and medical care rather than any legislative changes and resultant behaviour changes; and
- There is a lack of data and research on the involvement of vehicles in KSI accidents with advanced technologies in crashes, and research on perception of being caught breaking the law compared with the actual risk of being caught.

8.1.7   The Road Safety Observatory and EU SafetyCube project are seen by many as key disseminators or road safety research. Some interviewees indicated some concerns around the quality of the Road Safety Observatory in terms of the way evidence synthesis published on it are produced. However, they acknowledged ensuring a systematic methodology is used requires those with experience in evidence reviews to conduct the synthesis, which would likely involve increased funding, and that funding would also be required to keep the Observatory up to date.

8.2   Local Government

Stakeholder Interview Findings

8.2.1   Local authority representatives felt that national guidance is needed on Safe System implementation, as national guidance is highly important in a localism context, where there is a lot of pressure to respond to local demands which are unrelated to KSI priorities. This national guidance should be easy to follow, with one local authority suggesting that recent Traffic Signs Regulations and General Directions Guidance (2016), which prescribe the designs and conditions of traffic signs on or near roads, were difficult to follow.

8.2.2   Representatives also highlighted difficulties with knowledge transfer opportunities including:

- Attending conferences e.g. TRAFFEX, is done as part of annual leave as time cannot be obtained for personal development; and
- Knowledge transfer within local authorities on education, training and publicity (ETP) was previously considered good due to the network of road safety officers,

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however this is no longer the case due to the lack of road safety education/training personnel within local authorities.

8.2.3 Local authority representatives identified consultants and university research committees as sources of reliable research findings.

8.2.4 Some local government representatives feel that DfT should be the home for national evidence and road safety guidance, and therefore should be a leading commissioner and coordinator of road safety research.

Road Safety Officer Survey Findings

8.2.5 Twenty eight RSOs responded to the questions on research and development in the online survey.

8.2.6 RSOs reported differing levels of agreement with the statement *'central government research supports us with advice, standards and demonstration projects'*:

- 1 totally agreed;
- 7 mostly agreed;
- 15 partially agreed; and
- 5 disagreed.

8.2.7 There was some concern that the number of demonstration projects is decreasing, despite DfT's welcome commitment to generating intelligence, and that there was a lack of resource to implement DfT advice, standards and demonstration projects.

8.2.8 Asked about the statement *'central government provides sufficient advice and information to help us with road safety delivery'*:

- 1 totally agreed;
- 7 mostly agreed;
- 15 partially agreed; and
- 5 disagreed.

8.2.9 There was some concern that research based advice is lacking, especially for behavioural change initiatives, and that there is a disconnect between what is known to work and what is offered centrally and locally.

8.2.10 Asked to consider the statement 'l*essons and effective practice from national and international work are shared within the local authority'*:

- 2 totally agreed;
- 8 mostly agreed;
- 12 partially agreed; and
- 5 disagreed.

8.2.11 Some RSOs commented that lessons and effective practice from national and international work were only available to those who proactively search for it, on databases such as the Road Safety Observatory, and, there should be an active dissemination to local authorities instead.

8.2.12 A few RSOs reported that the level of knowledge transfer and research distribution, within their local authority, was suitable, citing the importance of Road Safety GB in this role.

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8.2.13   RSOs suggested local and national knowledge transfer and research distribution could be improved through the following processes:

- Greater time, resource and funding;
- Regular communication, including partnership working;
- Creation of a distribution body, responsible for sharing, promoting and encouraging best practice, relevant to local problems, and aiding those most distant from it. There was some suggestion that this may fall within the remit of former Road Safety Beacon Councils; and
- Ongoing development and integration of knowledge databases, such as Road Safety GB's Knowledge Centre and the Road Safety Observatory. RSOs encouraged the use of these databases and welcomed the development of an engineer's equivalent. RSOs also sought dissemination from these databases, in the form of newsletters outlining best practice.

Local Authority Survey Findings

8.2.14   Twenty three local authority representatives responded to the questions on research and development in the online survey.

8.2.15   Local authority representatives reported differing levels of agreement with the statement *'central government research supports us with advice, standards and demonstration projects'*:

- 2   totally agreed;
- 7   mostly agreed;
- 14   partially agreed; and
- 0   disagreed.

8.2.16   There mention that some demonstration projects require further evaluation and investment, especially in the area of Safe System. Additionally, there was recognition of a lack of knowledge, time and resource to access and implement central government advice, standards and demonstration projects.

8.2.17   Asked whether they agreed or disagreed with the statement *'central government provides sufficient advice and information to help us with road safety delivery'*:

- 2   totally agreed;
- 8   mostly agreed;
- 12   partially agreed; and
- 1   disagreed.

8.2.18   Local authority representatives regarded the THINK! campaigns as informative, however, they felt concerned that decreased direct communication from central government to local authorities would cause barriers for the dissemination of central government advice and information, and that best practice guidance was lacking for road safety delivery for younger drivers.

8.2.19   There was reasonable agreement with the statement *'Lessons and effective practice from national and international work are shared within the local authority'*:

- 0   totally agreed;
- 8   mostly agreed;

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- **O** 12 partially agreed;
- **O** 2 disagreed; and
- **O** 1 did not know.

8.2.20   There was some suggestion that this knowledge transfer could be improved through direct communication from central government to local authorities, making effective practice easily identifiable.

8.2.21   Generally, local authority representatives suggested knowledge transfer and research distribution, within their local authorities, could be improved through the following processes:

- **O** Greater time;
- **O** Greater resource, with the suggestion of the development of a dedicated research and data team;
- **O** Improved local priority given to road safety;
- **O** Staff mentoring and training;
- **O** A wider understanding of work completed and ongoing, through improvements to the website and the development of shared resources; and
- **O** The integration of the Safe System approach, through amalgamating road safety in local Highway Departments.

8.2.22   A few local authority representatives reported that the level of knowledge transfer and research distribution, within their local authority, was suitable.

8.2.23   It was suggested that national knowledge transfer and research distribution could be improved through the following processes:

- **O** Legislative changes to develop a fully integrated strategy;
- **O** Regional and national workshops, networking, seminars and meetings with experts to share knowledge for free and develop guidance and understanding of road safety approaches, such as Safe System;
- **O** Improved national priority given to road safety and Safe System;
- **O** Monitoring of road safety reports and publications to ensure that they are of high quality before being shared;
- **O** Creation of a distribution body, possibly DfT, Road Safety Foundation, CIHT or the Institution of Civil Engineers, responsible for sharing, promoting and encouraging best practice and innovation through monthly/quarterly bulletins, advising on what has and hasn't worked and why; and
- **O** Creation of a central, integrated knowledge database, possibly hosted by the DfT website, such as Road Safety GB's Knowledge Centre and the Road Safety Observatory. Local authority representatives encouraged the use of these databases. RSOs also sought dissemination from these databases, in the form of newsletters outlining best practice.

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8.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Knowledge Transfer

8.3.1 Some representatives of advisory groups, associations and charities suggested that opportunities for research dissemination and good practice knowledge sharing could be improved. Comments made on knowledge transfer practice included:

- Whilst individual centres and universities conduct a lot of research it is not well brought together into a central place;
- Research findings are hard to locate, including government research;
- UK does not share research findings with other international bodies, including Euro NCAP members, OECD or UNECE;
- European research findings should be shared with local authorities;
- The competitiveness in academia needs to be overcome in order to improve knowledge sharing;
- There has been a reduction in take-up of training (engineering and other topics) by local authorities, thus limiting knowledge sharing;
- DfT no longer disseminates good practice; and
- Safe System is going to require a long process of knowledge transfer.

8.3.2 Some representatives of advisory groups, associations and charities were aware of the Road Safety Observatory – a repository for road safety research reviewed by an independent panel. Whilst the idea was considered very positively, representatives found the Observatory less useful in practice as research and commentary published are either out of date or too high level to be practicable. Stakeholders suggested that additional funding and support was required to maintain the Observatory. The Road Safety Knowledge Centre was also referenced, however as a signposting mechanism, rather than providing commentary on the quality of the evidence.

8.3.3 Some expressed frustration that despite large amounts of money being spent on developing an evidence base, policymaking is then not necessarily evidence based itself.

Research Areas

8.3.4 Whilst some representatives suggested there is enough research on road safety, others suggested that more research is required in particular areas. These include:

- Young driver interventions, particularly surrounding the training and qualifications system to enable young drivers to have the freedom of driving whilst reducing risk[2];
- Vehicle design for older drivers;
- More consistent and better quality data on why crashes occur; and
- Automated cars and safety, particularly in the transitional period, covering licensing, testing, and responsibilities in relation to regulations.

8.3.5 They suggested that a road safety research strategy or advisory board would be beneficial in assisting DfT determine national research priorities.

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[2] N.B. respondents did not mention the current Driver 2020 research which seeks to explore the effectiveness of non-licence based interventions on reducing young driver collision risk.

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8.4 Business and Industry

Stakeholder Interview Findings

8.4.1 Most business and industry stakeholders engaged with look for evidence based research in road safety areas that fall under their remit.

8.4.2 Some felt that research led by DfT has improved over the last few years with more focus on identified good practice and research evaluation.

> *"The tide is turning… the overwhelming view is more research, more pre-evaluation, more post-evaluation, DfT are completely behind that. I am quite enthusiastic about their approach at the moment."*
>
> (Business and industry representative)

8.4.3 Gaps identified in road safety research included:

- The impact of external factors on collisions e.g. poor road conditions, markings;
- The effectiveness of current practical driver training versus alternative models; and
- Understanding of the causes of each individual crash and what percentage of incidents are a result of human error.

8.4.4 There were mixed views with regards to knowledge transfer with some awareness of the Road Safety Observatory and Road Safety Knowledge Centre. Issues raised included:

- Concern that there are some areas of replication in terms of knowledge transfer and that the Road Safety Observatory and Road Safety Knowledge Centre are playing the same role;
- Knowledge transfer can be complicated by different sources of funding and therefore resistance to share findings;
- The outdated nature of the evidence base means defining 'good' is not clear. The Road Safety Observatory defines 'good' to an extent but the amount of evidence and conflicting views held by road safety professionals makes definition unclear. In particular there is no central repository of what 'good' means in terms of highway design; and
- Evidence that has been identified as 'good' is hard to locate.

8.5 Emergency Services

Stakeholder Interview Findings

8.5.1 Some emergency service representatives identified areas where they are conducting their own research, including collaborations with universities. Research is being undertaken on mobile phone use when driving, drink and drug driving, and on younger and older drivers.

8.5.2 There are a number of areas where emergency service representatives consider road safety research is required or could be improved. These include:

- There is no research available on perceived versus actual risk of being detected for a range of offences;
- There is no best practice information on speed prosecution thresholds;

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- There is heavy reliance on STATS19 data, however the data has recently been delayed, meaning up-to-date data sources are not available;
- Incidents that are not reported to the police are not provided in the STATS19 data, leading to some types of road collisions being underreported; and
- Attempts have been made by emergency medical services to bring leading psychologists together to gain a better understanding of 'opinions' and data but the coordination failed.

8.5.3   Knowledge transfer across emergency services is coordinated by local authorities in some regions, and through strategic groups in others. Comments relating to the need for improvement in knowledge transfer, made by emergency service representatives, include:

- Knowledge transfer across the country is uncoordinated, with different regions identifying their own priorities, rather than identifying good practice approaches consistently;
- There is no road safety knowledge transfer or promotion of initiatives to and within ambulance services, with the suggestion that this could be improved through the introduction of specific meetings with key stakeholders;
- Different data systems cannot be integrated with each other to provide a joined up picture of road collision results from all emergency services; and
- It is difficult to locate the research required.

8.5.4   Some emergency service representatives suggested that it would be helpful for DfT to identify and then share best practice through a forum, and to encourage knowledge sharing.

Police Force Survey Findings

8.5.5   Eleven police force representatives responded to the questions on research and development in the online survey.

8.5.6   Asked whether '*Central government research supports their police force with advice standards and demonstration projects*':

- 0   totally agreed;
- 1   mostly agreed;
- 5   partially agreed;
- 2   disagreed; and
- 3   did not know.

8.5.7   Asked whether '*Central government provides sufficient advice and information to help their police force with road safety activity (including enforcement)*':

- 0   totally agreed;
- 2   mostly agreed;
- 5   partially agreed;
- 2   disagreed;
- 2   did not know.

8.5.8   There was reasonable consensus about the statement '*Lessons and effective practice from national and international work are shared within the police force*':

- 0   totally agreed;

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- ○ 2 mostly agreed;
- ○ 7 partially agreed;
- ○ 1 disagreed; and
- ○ 1 did not know.

8.5.9 A total of 4 police force representatives provided responses when asked how the sharing of information on relevant road safety evidence could be improved within their police force. Suggestions were:

- ○ Create a central national repository for roads policing; and
- ○ Provide analytical support, similar to the structure and process in place for other crime.

8.5.10 In terms of improving the sharing of road safety evidence on a national scale, police force representatives made the following propositions:

- ○ Make better use of the Police Online Knowledge Area (POLKA)/National Road Policing Intelligence Forum (NRPIF);
- ○ Create a central national repository for roads policing; and
- ○ Ensure that forces have nominally responsible casualty reduction officers.

8.6 Academic Institutions

Stakeholder Interview Findings

8.6.1 Barriers to successful knowledge transfer identified by representatives of academic institutions include:

- ○ The quality of the Road Safety Observatory material is an issue – it is difficult to use and does not stand up academically, although a review is underway;
- ○ Research is often funded by private sector commercial organisations and therefore knowledge is not publicly shared;
- ○ Whilst BREXIT is not yet affecting invitations to be part of EU-wide research proposals it may do in future;
- ○ There is a lack of synthesis of research findings;
- ○ There is a lack of guidance on best practice; and
- ○ There is a lack of identification of priorities for road safety research from research experts.

8.6.2 Areas identified by academic institutions as requiring more research include:

- ○ Driver distraction and fatigue, as more in-vehicle functions become available for driver use;
- ○ Safety related research on autonomous vehicles e.g. research on how will they be used and misused, over trust of the system, crash protective elements etc.;
- ○ New safety interventions, particularly in relation to vehicle safety; and
- ○ Data requirements for active travel policy - which could be collected within STATS19, e.g. for pedestrian accidents (pedestrian falls on the pavement are at least comparable to numbers being fatally and serious injured on the highway), cycle only accidents, and multiple cycle accidents.

8.6.3 Representatives of academic institutions raised some concerns with research procurement. These include:

- The current procurement process favours large consultancies within a framework which means that specialist activity can be limited or excluded;
- The SPATS framework for research procurement is problematic as it is limited to five organisations and their subcontractors; and
- Often, government agencies do not have any idea of the competence of the organisations tendering.

8.6.4　Concerns raised regarding DfT's role in research and development include:

- With regular changes internally in research staff there is a loss of developing expertise;
- There is little or no consultation with external experts on safety research priorities;
- There is a need for a national road safety research programme over 10 years to build Safe System capacity and knowledge;
- There is insufficient attention to the evidence base in policymaking; and
- Training budgets at central and local government levels and funds to attend conferences and workshops have been reduced in recent years, this together with staff reductions and staff turnover results in limits to current road safety knowledge.

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9.   INTERVENTION: SAFE ROADS & ROADSIDES

9.1   Central Government Departments/Agencies

Stakeholder Interview Findings

9.1.1   Government representatives expressed how the Safer Roads Fund is driving investment in road safety engineering.

9.1.2   They noted that on the strategic network, single carriageway A roads have been identified, using the iRAP star-rating exercise, as the most dangerous type of road, due to head-on collision and run-off risk. Infrastructure changes on these roads are therefore a focus.

9.1.3   Other infrastructure mechanisms noted as being examined at present include: self-healing roads, plastic roads, pothole repair system, smart street lighting connectivity issues, and AV-needs. Lane-keeping assistance (an in-vehicle safety device on the EU vehicles agenda) is not yet being considered from an infrastructure point of view.

9.1.4   Other comments made by government representatives relating to safe roads and roadsides include:

- There is no guidance on Safe System implementation for infrastructure as yet; and
- Local authorities have programmes to boost walking and cycling, with a focus on cycling infrastructure.

9.2   Local Government

Stakeholder Interview Findings

9.2.1   Representatives noted that high/medium KSI risk sections of roads are not systematically prioritised for treatments in most local authorities, but rather KSI sites themselves are prioritised. They also noted that there is little evidence of a Safe System approach being implemented or being integrated into mainstream engineering e.g. asset management. However, some local government representatives noted that participation in the Safer Roads Fund scheme is focussing attention on proactive treatments, although it was also recognised to be a challenging process. Additionally, the establishment of the national Major Road Network is viewed positively by some representatives.

9.2.2   Some local government representatives referred to the iRAP risk mapping. Whilst the ratings were considered to help put the focus on routes needing safety attention, representatives were concerned about excessive recommendations and lack of clarity regarding applicability in UK conditions.

9.2.3   Many representatives noted that road safety funding has declined dramatically over the years, with road safety budget being used to support maintenance activity in some instances.

9.2.4   Requests were made by local government representatives for clearer guidance with more consistent standards in relation to:

- Road signage and signage strategy that focusses on decluttering; and

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- Road sign lighting and potential to remove external illumination (because car beams are adequate lighting if the signs are made of the right reflective material).

Road Safety Officer Survey Findings

9.2.5 Twenty seven RSOs responded to the questions on safe roads and roadsides in the online survey.

9.2.6 When RSOs were asked about the extent to which there is a programme of safety engineering treatments being carried out on local roads:

- 19 reported totally or mostly;
- 4 suggested such a programme is partially being carried out;
- 2 reported no such programme is being carried out; and
- 1 did not know.

9.2.7 Of the 6 RSOs who stated a partial or no programme of safety engineering treatments is being carried out on local roads:

- 3 indicated it is likely or planned for the future;
- 1 reported it is unlikely or not planned for the future; and
- 2 did not know.

9.2.8 When RSOs were questioned about whether there is a proactive treatment of roads with identified risk:

- 15 of RSOs reported totally or mostly;
- 7 suggested this is being carried out partially;
- 4 stated this is not being undertaken at all; and
- 1 did not know.

9.2.9 Of the 11 RSOs who cited partial engagement in proactive treatment of roads with identified risk or no engagement at all:

- 8 suggested it is likely or planned for the future;
- 1 stated it is unlikely or not planned for the future; and
- 2 did not know.

9.2.10 In response to being asked if priorities for safety engineering treatments are identified using Safe System principles:

- 8 of RSOs stated totally or mostly;
- 6 reported partial implementation of these principles;
- 9 suggested not at all; and
- 4 did not know.

9.2.11 Of the 15 RSOs who cited partial priority identification with Safe System principles or no priority identification with Safe System principles at all:

- 8 reported this is likely or planned for the future;
- 3 suggested this is unlikely or not planned for the future; and
- 4 did not know.

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Local Authority Survey Findings

9.2.12   Twenty three local authority representatives responded to the questions on safe roads and roadsides in the online survey.

9.2.13   When local authority representatives were asked about the extent to which there is a programme of safety engineering treatments being carried out on local roads:

- 21   of local authority representatives stated totally or mostly; and
- 2   suggested such a programme is partially being carried out.

9.2.14   Of the two representatives who cited partial engagement in safety engineering treatments:

- 1   suggested this is likely or planned for the future; and
- 1   did not know whether this is planned for the future, or not.

9.2.15   When questioned about whether there is a proactive treatment of roads with identified risk:

- 17   of representatives reported totally or mostly;
- 4   stated this is being carried out partially; and
- 1   suggested not at all.

9.2.16   Of the four representatives who cited partial engagement in proactive treatment of roads with identified risk, or no engagement at all:

- 1   indicated this is likely or planned for the future; and
- 3   did not know.

9.2.17   In response to being asked if priorities for safety engineering treatments are identified using Safe System principles:

- 5   of stated totally or mostly;
- 10   reported partial implementation of these principles;
- 6   suggested not at all; and
- 1   did not know.

9.2.18   Of the 16 representatives who cited partial priority identification with Safe System principles or no priority identification with Safe System principles at all:

- 3   reported this is likely or planned for the future;
- 2   suggested this is unlikely or not planned for the future; and
- 11   did not know.

9.2.19   Asked if Safe System principles are being embedded into the mainstream of highway engineering processes and practice:

- 3   stated this is totally or mostly the case;
- 12   indicated partial implementation of these principles;
- 6   said not at all; and
- 1   did not know.

9.2.20   Of the 187 representatives who cited partial or no embedding of Safe System principles into their mainstream highways and engineering processes and practice:

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- ○   6   indicated this is likely or planned for the future;
- ○   4   suggested this is unlikely or not planned for the future;
- ○   7   did not know; and
- ○   1   did not respond.

9.2.21   In response to being asked whether longer term benefits of safety engineering treatments are accounted for in project appraisals and investments:

- ○   10   reported totally or mostly;
- ○   7   indicated this is partially the case;
- ○   3   suggested this does not happen at all; and
- ○   2   did not know.

9.2.22   Of the 10 representatives who cited longer term benefits of safety engineering treatments are partially or not at all accounted for in project appraisals and investments:

- ○   4   indicated this is likely or planned for the future;
- ○   4   indicated this is likely or planned for the future;
- ○   2   suggested this is unlikely or not planned for the future;
- ○   2   did not know; and
- ○   2   did not respond.

9.2.23   Lastly, representatives were asked if their local authority uses iRAP risk mapping and star rating in their prioritisation of road safety engineering work:

- ○   4   reported partial implementation of such processes;
- ○   16   stated they do not use these systems at all; and
- ○   2   did not know.

9.2.24   Of the 20 who cited partially or not at all using iRAP risk mapping and star rating in their prioritisation of road safety engineering work:

- ○   4   indicated this was likely or planned for the future;
- ○   9   suggested this was unlikely or not planned for the future;
- ○   6   did not know; and
- ○   1   did not respond.

9.3   Advisory Groups, Associations and Charities

Stakeholder Interview Findings

9.3.1   Some representatives of advisory groups, associations and charities indicated that the establishment of the national Major Road Network, to be funded by vehicle licensing fees, was a positive step and they were keen to see investment beyond the Strategic Road Network since the Major Road Network is twice the size. Additionally, several noted that a range of goals and targets should be adopted, as they have for the Strategic Road Network.

9.3.2   Representatives of advisory groups, associations and charities raised a number of concerns relating to safe roads and roadsides. These include:

- ○   There is a lack of strategic thinking and long-term planning by local authorities for local roads;

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- There is a shortage of resources for route treatments outside the Safer Roads Fund and too much concentration on low-cost schemes;
- A proliferation of road signs, providing a mass of information, not all of which is relevant, means drivers focus on the signs and not the road;
- The piecemeal nature of some development makes strategic vision for safe areas for children to play unrealistic in many cases;
- Short term reactive funding by local authorities for road safety posts (RSOs on 18 month posts) and pot hole funds leads to an overall decline in standards for safe roads; and
- Lack of lighting on roads negatively impacts motorbikes and cyclists in particular.

9.3.3 Initiatives promoted by representatives include:

- Junctions priority clarity for cyclists, including cyclist left-turn priority;
- Segregation between cyclists and motor traffic;
- Advanced green lights for cyclists – get a head start on traffic and clear out of danger area where drivers may not be able to see you;
- Lobbying for reduction in motor vehicles through road user charging, and roll out of new technology in public transport, such as bus Intelligent Speed Assistance (ISA) trials; and
- Prioritising improvements to existing roads rather than new construction, e.g. better road surface quality, which impacts on road safety.

9.4 Business and Industry

Stakeholder Interview Findings

9.4.1 Representatives of business and industry noted the importance of good road and roadside design for road safety. However, there were concerns that a Safe System approach is not prioritised by designers in road and roadside design, due to lack of awareness.

9.4.2 Business and industry representatives suggested that rather than, as per the iRAP scheme, defining high-priority routes by the number of KSIs the DfT should consider prioritising routes based on:

- The best casualty reduction per pound spent; and
- An acknowledgement that the recording of KSIs does not include recognition of driver factors such as health and lack of control (e.g. heart attacks, diabetic comas, asleep at the wheel), which are not factors of the road and cannot be improved with engineering/infrastructure changes.

9.4.3 They felt that technical knowledge of road and roadside design at a local authority level was limited, with very few occurrences of local authorities referring to safer roadsides, with the exception of route schemes on DfT high priority routes where DfT has provided funding.

9.4.4 Some business and industry representatives highlighted their contribution to good road design through guidance publications. These included:

- Responses to requests from engaged local authorities for policies on passive safety, road design and prioritisation; and

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- Publications for site developers (often off main strategic routes) examining safe road design for HGVs, e.g. turning circles (where incorrect design can mean vehicles rolling over even at low speeds), parking areas and layouts.

9.4.5 Another comment made by business and industry representatives is that the introduction of connected roads is perceived to have potential for a big impact on road safety. In terms of road design, the quality of white lines on roads is considered very important, both for drivers, but also for car cameras to enable autonomous systems to work effectively.

9.5 Emergency Services

Stakeholder Interview Findings

9.5.1 Whilst representatives of the emergency services noted that they are not directly involved in road design, they were interested in being consulted in the future. Points raised by representatives include:

- Data on collision frequency in different road environments could be provided in order for this to be taken into account during road design;
- Road humps have been introduced without emergency service consultation – these slow down response time and can mean difficulty in transit. A preferred option would be road pinching methods, with staggered road use; and
- Yet to be convinced by the effectiveness of smart motorways in reducing KSIs, which they considered provide an unsafe environment for emergency services to work in and to make access for emergency services more difficult.

9.5.2 Some emergency services do have some input into the road design phase, examples cited include:

- Highlighting areas with increased accident and KSI activity to county engineers, such as harsh corners and dangerous tree placement;
- Inputting views on junction and roundabout design; and
- Highlighting the impact of road design on vulnerable road users.

9.6 Academic Institutions

Stakeholder Interview Findings

9.6.1 Several researchers referred to the need to adopt Safe System road hierarchies and speeds and stressed the importance of safe roadsides to prevent run-offs. They believed that these were receiving too little attention in current network management planning.

9.6.2 Representatives of academic institutions identified a number of areas where they considered more research was necessary. These include:

- How human factors interact with road design, for example road design can slow people down by adding curves at the end of long, fast roads;
- How boredom can be alleviated in monotonous driving conditions, including better provisions for breaks;
- The impact of road width relative to speed;
- The impact of road signage on driver behaviour, including consideration of whether there are too many road signs, whether road signs are in the way, and whether the vehicle can communicate with the driver better than road signs; and

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○   20 mph limits without self-enforcing measures.

9.6.3   Other comments made by academic representatives on safe roads and roadsides include:

○   Most national research and evidence comes from the 1960s and is outdated; and
○   The new ringfenced money for major road improvements is not statutory and could be diverted because no actual sum has been allocated.

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10. INTERVENTION: SAFE SPEEDS

10.1 Central Government Departments/Agencies

Stakeholder Interview Findings

Safe Speed Priority

10.1.1 Central Government Departments and agencies consider that safe speed interventions are generally not a priority within DfT. They cited cultural views around speeding acceptability and speed enforcement as barriers to giving the intervention priority.

10.1.2 The responsibility for safe speed interventions is seen to fall within Local Authorities, as part of the Localism Act 2011. Central government departments and agencies suggest that local authorities have the ability to set speed limits and implement enforcement infrastructure, namely speed cameras. Additionally, fleet managers are seen to have a key role in safe speeds interventions, with most monitoring fleet driving speeds through the use of telematics technology. The DfT encourages this practice.

Safe Speed Enforcement

10.1.3 DfT does not hold data on speed enforcement measures, and therefore data is not available to them on speed camera compliance. However, they do measure compliance with speed limits in normal, free-flowing traffic. There is a general view that speed limit compliance is improving.

10.1.4 Speed enforcement infrastructure, namely cameras, is seen as the responsibility of local authorities and Highways England, at local and network levels. Speed cameras are considered to be the 'last-resort' option on the national network, with no further plans to increase their numbers, and a preference for variable and average speed limits.

10.1.5 Limited police resource is seen to have an impact on the police responsibility for speed enforcement, with heavier reliance on camera-only enforcement becoming increasingly common. Ring-fenced speed enforcement funds, provided by the Home Office, were seen to have value, however, operational priorities create difficulties.

10.1.6 It is believed that relaxed public attitudes to speeding and an increased antagonism to speed cameras, act as barriers to safe speed compliance.

10.2 Local Government

Stakeholder Interview Findings

Safe Speed Priority/Strategy

10.2.1 One local authority suggested that safe speed interventions are outlined in local authority and partnership strategies, in order to aid local policy and decision making. The development of such strategies is believed to be based upon casualty data, therefore interventions usually prioritise specific road user groups and priority routes.

Safe Speed Enforcement

10.2.2 The success of Safety Camera Partnerships is acknowledged by local government stakeholders, however:

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- There is a recognition that some camera sites have been abandoned;
- There is national variability in their use; and
- Reviews of safety camera development, hours of enforcement and performance are not conducted by all local authorities (although one local authority stakeholder publishes safety camera data on their website, and provides it to local government advisory bodies).

10.2.3 Many local government stakeholders suggested that cameras are being systematically digitalised.

10.2.4 Without safety camera or active road policing enforcement, lack of self-enforcement of 20mph limits is a considered to be a problem though DfT research is expected to throw further light on this issue.

Safe Speed Limits

10.2.5 Speed limit risk assessment reviews are supported by local government advisory groups and have resulted in the lowering of speed limits from 60mph to 50mph in most local authorities, with some considering further reduction to 40mph, but acknowledging an increased risk of overtaking. Despite such results, some local authorities view speed limit risk assessment reviews as questionable.

10.2.6 As well as reductions in speed on faster routes, local authorities reported the adoption of 20mph speed limits in urban areas.

10.2.7 Many local authorities recognised public pressures on speed limit setting, with one local authority suggesting that it receives multiple requests from residents for speed limit changes. Another local authority suggested that such requests are usually for unenforceable lower limits, and these are usually ignored.

Safe Speed Education

10.2.8 Safe speed awareness course levies are managed by local road safety partnerships and conducted by roads policing units.

Speed Calming Measures

10.2.9 Multiple local government stakeholders reported that speed humps are being removed, with an acknowledgement of the economic cost of doing so.

Road Safety Officer Survey Findings

10.2.10 Twenty seven RSOs responded to the questions on safe speeds in the online survey.

10.2.11 RSOs were asked whether they consider local speed limits and their enforcement to be aligned with safe system principles:

- 10 suggested they were totally or mostly aligned;
- 3 stated they were partially aligned;
- 7 reported not at all aligned; and
- 7 did not know.

10.2.12 Of the 10 RSOs who cited partial alignment with Safe System principles for their implementation of local speed limits and speed enforcement, or no alignment at all:

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- 2 indicated this is likely or is planned for the future;
- 4 reported this is unlikely or is not planned for the future; and
- 4 did not know.

10.2.13   In response to being asked if speed enforcement on different roads is coordinated with publicity to achieve a deterrent effect:

- 8 of RSOs stated this is totally or mostly the case;
- 6 suggested this is partially true;
- 11 indicated that this is not the case; and
- 2 did not know.

10.2.14   Of the 17 RSOs who cited partial coordination of speed enforcement and publicity, or no coordination at all:

- 6 indicated this is likely or is planned for the future;
- 7 reported this is unlikely or is not planned for the future; and
- 4 did not know.

10.2.15   RSOs were subsequently asked if data is available on speed limit compliance, average speeds and the number of hours of speed camera enforcement:

- 13 indicated this data is totally or mostly available;
- 6 reported partial availability of such data;
- 5 stated this data is not at all available; and
- 3 did not know.

10.2.16   Of the 11 RSOs who cited partial availability of data on speed limit compliance, average speeds and the number of hours of speed camera enforcement, or no availability at all:

- 4 suggested this is likely or is planned for the future; and
- 7 reported this is unlikely or is not planned for the future.

10.2.17   With regards to whether 20mph zones and/or 20mph limits are widely implemented:

- 8 of RSOs suggested these are totally or mostly implemented;
- 14 indicated partial implementation of such restrictions;
- 3 reported no deployment of such zones and/or limits; and
- 2% did not know.

10.2.18   Of the 17 RSOs who cited partial implementation of 20mph zones or speed limits, or no implementation at all:

- 4 indicated this is likely or is planned for the future;
- 5 reported this is unlikely or is not planned for the future; and
- 8 did not know.

Local Authority Survey Findings

10.2.19   Twenty two local authority representatives responded to the questions on safe speeds in the online survey.

10.2.20   Local authority representatives were asked whether they consider local speed limits and their enforcement to be aligned with safe system principles:

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- 6 suggested they were totally or mostly aligned;
- 8 stated they were partially aligned;
- 6 reported they were not at all aligned; and
- 2 did not know.

10.2.21 Of the 14 representatives who cited partial alignment with Safe System principles for their implementation of local speed limits and speed enforcement, or no alignment at all:

- 2 suggested this is likely or is planned for the future;
- 5 stated this is unlikely or is not planned for the future;
- 5 did not know; and
- 2 did not respond.

10.2.22 In response to being asked whether data is available on speed limit compliance, average speeds and the number of hours of speed camera enforcement:

- 14 reported this data is totally or mostly available;
- 5 indicated partial availability of such data;
- 2 suggested this data is not available at all; and
- 1 did not know.

10.2.23 Of the 7 representatives who cited partial availability of data on speed limit compliance, average speeds and the number of hours of speed camera enforcement, or no availability at all:

- 1 indicated this is likely or is planned for the future;
- 1 stated this is unlikely or is not planned for the future;
- 4 did not know; and
- 1 did not respond.

10.2.24 With regards to whether 20mph zones and or 20mph limits are widely implemented:

- 11 of local authority representatives suggested these are totally or mostly implemented; and
- 11 indicated partial implementation of such restrictions.

10.2.25 Of the 11 representatives who cited partial implementation of 20mph zones or speed limits:

- 1 indicated this is likely or is planned for the future;
- 4 stated this is unlikely or is not planned for the future;
- 4 did not know; and
- 2 did not indicate whether these were planned for the future, or not.

10.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Safe Speed Priority/Strategy

10.3.1 Most advisory groups, associations and charities promote and prioritise safe speeds and speed limits and see speed as being central to road safety.

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10.3.2   One stakeholder, with a remit for motorcyclist safety, reports working with motorbike manufacturers to encourage promotion of safe speeds by reducing marketing of highspeed bikes.

10.3.3   Relaxed public attitudes to speeding and a lack of commitment to road safety, from all bodies, creates barriers for safe speed prioritisation.

Safe Speed Enforcement

10.3.4   In general, safe speed enforcement is seen as poor, with the suggestion that 20mph speed limits, in particular, need to be better enforced. Poor safe speed enforcement is seen to come from a reduction in the use of poorly located speed cameras and a reduction in roads policing resource.

10.3.5   One representative made reference to international best practice, citing increased safe speed enforcement levels in France as a contributing factor to reduced collision levels, due to an increased fear of detection.   However, it was acknowledged that such a practice would not be possible in the UK, due to reduced resource.

10.3.6   Despite poor safe speed enforcement, camera enforcement is seen by some as a good revenue generator, although this was not a commonly expressed view. The success of Safety Camera Partnerships between police, local authorities, Highways England and Her Majesty's Courts and Tribunals Service (HMCTS) is acknowledged, however, there is a recognition that some had been abandoned.

10.3.7   Self-enforcement of 20mph limits is perceived by cycling organisations and some speed limit reduction advocacy representatives as a red-herring, who would like better enforcement of 20mph limits by the police.

Safe Speed Limits

10.3.8   In-car technology, such as Intelligent Speed Adaptation (ISA), is generally advocated by advisory groups, associations and charities, with several organisations suggesting that voluntary overridable ISA should be mandatorily fitted to motor vehicles to fulfil Safe System strategy.

10.3.9   On local roads, speed limit reduction is advocated by many advisory group, association and charity stakeholders. For instance, one charity stakeholder suggested that most 60mph limits are inappropriately high, and additionally, cyclist safety organisations advocated default speed limits of 40mph on country roads and 20mph in residential areas. In line with this suggestion from cycle safety organisations, some other advisory group, association and charity stakeholders expressed support for the introduction of 20mph speed limits, with the suggestion that this speed limit is needed in order to adopt a Safe System approach. However, there is some concern that 20mph speed limits should only be introduced where:

   O   It is sensible and credible (for example, in urban settings where people are often driving at 20mph anyway, or near schools), with appropriate exceptions; and
   O   The benefits have been explained before implementing.

10.3.10   Other stakeholders do not support 20mph speed limit implementation, citing:

   O   20mph speed limits are not the best use of funding;
   O   20mph speed limits increase pollution by 30% for the average current vehicle; and

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◯　　Collisions are likely in 20mph speed limits because drivers are focused on their speedometer.

10.3.11　　Some stakeholders are waiting for DfT research evaluating 20mph speed limits before drawing any conclusions.

10.3.12　　Considerations suggested by advisor group, association and charity stakeholders, when changing speed limits, are:

　　　　◯　　Promotion of the speed limit change, including keeping satnavs up to date;
　　　　◯　　The introduction of autonomous vehicles;
　　　　◯　　The cost of change, especially for local authorities;
　　　　◯　　DfT's Local Speed Limit Schemes Appraisal Tool (2013);
　　　　◯　　Evidence for effectiveness, with Unfit for 80 (2012) being recognised as evidence of the ineffectiveness of speed limit increase;
　　　　◯　　Road users' prioritisation of journey time reliability over safety; and
　　　　◯　　A duty to protect vulnerable road users and the tolerance of the human frame, with the acknowledgement that in 2016, over half of those killed on London roads were pedestrians.

10.3.13　　On all networks, stakeholders recognise barriers to speed limit change. For instance, populism is often seen to influence speed limit setting, with some speeds not seen as acceptable in the local environment. Additionally, compared to the iRAP star rating system which accounts for safe speed and Safe System principles, the current road classifications system is seen as inefficient.

Safe Speed Monitoring

10.3.14　　One advisory group, association and charity stakeholder monitors safe speed compliance through an annual road user survey. Results from the most recent survey suggest that road users are more likely to report breaking the motorway speed limit than any other speed limit.

10.3.15　　Another advisory group, association and charity stakeholder suggested that safe speed monitoring statistics should all be kept in one, accessible place.

10.4　　Business and Industry

Stakeholder Interview Findings

Safe Speed Priority/Strategy

10.4.1　　Whilst there was little evidence of strategies in business and industry around safe speed, the representatives engaged with were advocates of speed legislation, the Highway Code and intelligent in-vehicle systems and telematics.

10.4.2　　One business and industry stakeholder recognised the tendency to take a reductionist approach, mistakenly viewing safe speed as the largest risk factor for KSI involvement.

Safe Speed Enforcement

10.4.3　　One business and industry representative acknowledged the importance of safe speed enforcement, citing speed cameras as the most effective intervention for reducing speed on all networks. However, it was suggested that public controversy, namely the influence

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of populist and inappropriate views, acts as a barriers to effective speed camera implementation, with speed cameras often put in place in low-risk areas, where drivers cannot go fast enough to do serious harm, and not in high-crash-risk areas.

Safe Speed Limits

10.4.4 On all networks, business and industry representatives saw difficulties for physical speed limit change. For instance:

- The influence of populism, without the acknowledgement that the public view is non-expert;
- Communicating with road users that the safe speed limit is lower than the previous safe speed limit; and
- Lack of best-practice awareness in local networks, despite DfT's Local Speed Limit Schemes Appraisal Tool (2013), causing variability in speed limit setting.

10.4.5 There was some concern for the effectiveness of 20mph speed limits from one business and industry representative.

10.4.6 Business and industry representatives recognised that their main safe speed limit interventions focused on intelligent in-vehicle systems, such as cruise control, road speed limiters and ISA. There was an acknowledgement that road speed limiters are required to be fitted in commercial vehicles by law and that there is currently a push for ISA to also be mandatory.

Safe Speed Monitoring

10.4.7 Telematics technology was recognised as a way of monitoring safe speed by business and industry representatives. This technology was thought to be built into larger fleet operators logistics programmes, to manage operations processes and performance, with the possibility to take action against non-compliant drivers.

Speed Penalties

10.4.8 The insurance industry were seen to incentivise safe speed adherence by increasing insurance costs for those with speeding penalty points.

Fleet and Road Haulage Survey Findings

10.4.9 Of the 17 fleet company managers and four road haulage company managers who responded to questions on safe speeds:

- 13 fleet companies and 3 road haulage companies routinely monitor driver compliance with rules for speed, alcohol, use of drugs, seat belts and in-vehicle telephone use; and
- 9 fleet companies and 2 road haulage companies use telematics to monitor driver performance.

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10.5   Emergency Services/Health

Stakeholder Interview Findings

Safe Speed Priority/Strategy

10.5.1   Emergency Services prioritise safe speed interventions and some work with Road Safety Partnerships to consider speed enforcement strategies.

Safe Speed Enforcement

10.5.2   Emergency services and health sector representative perceived there to be a reliance on camera-only enforcement by police forces. They saw this as   less evident in 20mph limit areas and more evident in areas with high collision frequency, due to stretched resource.

10.5.3   Emergency services reported that communities are often involved in online complaints systems which guide safe speed enforcement locations. One police force suggested that it compiled community complaints with internal intelligence, to create a list of at-risk offenders that allows for highly targeted enforcement. Communities are also involved in community speed watch teams, however police forces state there is a lack of resource to train and shadow community speed watch members and this has caused disinterest.

Safe Speed Limits

10.5.4   Emergency Services have been consulted on the introduction of 20mph speed limits in their area. This has allowed them to develop targeted enforcement and education campaigns.

Safe Speed Education

10.5.5   The National Speed Awareness Course, offered as part of the National Driver Offender Retraining (NDOR) Scheme was valued by emergency services. However, concern was expressed that:

- Offenders may be eligible for repeat courses within a 3-year period; and
- The suitability of the police force for delivering NDOR. There was a suggestion that the fire service would be better suited to this role – one which at least some fire services would be interest in.

10.5.6   Other safe speed education interventions, used by police forces, which are now restricted due to limited resource, include:

- Roadside awareness videos, presented by police to offenders; and
- 'Kids court' initiatives, in which offenders caught outside of schools would be asked to explain their actions to a panel of children.

Police Force Survey Findings

10.5.7   Ten police force representatives responded to the questions on safe speeds in the online survey.

10.5.8   Police force representatives were asked whether they consider local speed limits and their enforcement are aligned with safe system principles. Of these:

- 5 suggested they were totally or mostly aligned;

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- 1 suggested they were not at all aligned but this was something planned for the future; and
- 4 did not know whether these two standards were congruent.

10.5.9 There was mixed response when police force representatives were asked to consider if speed enforcement on different roads is coordinated with publicity to achieve a deterrent effect. Of the 10 respondents who answered the question:

- 4 suggested this to be totally or mostly the case;
- 2 argued that it was partially the case;
- 2 said this was not the case; and
- 2 did not know.

10.5.10 Of those who answered this to be partially or not at all the case, two commented that it was planned in the future, and two did not know.

10.5.11 Of the 10 police force representatives who stated whether data is available on speed limit compliance, average speeds and the number of hours of speed camera enforcement for road types:

- 5 responded that this information is totally or mostly available;
- 3 said it is partially available (2 of whom said its availability is planned in the future); and
- 2 did not know.

10.5.12 Half of the 10 police force representatives answering the question did not know if speed awareness courses were improving compliance with speed limits locally. Of those who considered that the courses do improve compliance with speed limits locally:

- 1 considered this to be totally the case;
- 3 indicated it is mostly the case; and
- 1 considered it to be partially the case.

10.5.13 Police force representatives were asked whether 20mph zones and / or 20mph limits were widely implemented by their police force. Of those who answered the question:

- 4 said they were totally or mostly implemented;
- 5 indicated they were partially implemented; and
- 1 did not know.

10.5.14 Of those who suggested they were only partially implemented, 2 stated that there were future plans for such zones and speed limits, 2 indicated that such plans were not on their police forces' agenda, and one did not know.

10.6 Academic Institutions

Stakeholder Interview Findings

Safe Speed Priority/Strategy

10.6.1 Academic institutions did not perceive safe speed interventions to be a priority within DfT and key agencies, such as Highways England.

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10.6.2   Several stakeholders believed that targets should be set to increase compliance with speed limits on different types of roads and that speed limits needed to be aligned with Safe System principles.

Safe Speed Enforcement

10.6.3   Research on the value of speed cameras has been supported by academic institutions. However, average and variable speed limits, and supporting camera technology, were seen to be more effective interventions. Academic institutions explicitly encourage the use of these technologies in 'black spot' areas.

10.6.4   Academic institutions saw the insurance industry and their use of telematics technology as successfully incentivising long-term behavioural change, in particular for young drivers and those driving to work, although they felt further evaluation is needed.

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11. INTERVENTION: SAFE VEHICLES

11.1 Central Government Departments/Agencies

Stakeholder Interview Findings

Priority Given to Safe Vehicles

11.1.1   Vehicle safety is seen as fundamental to improving road safety outcomes with the UK. Central government departments and agencies made specific reference to tyre safety and the influence of vehicle safety on vulnerable road users as priority areas.

Responsibility for Safe Vehicles

11.1.2   The responsibility for vehicle safety was seen to be shared between central government – departments, particularly the International Vehicles Division, and agencies, namely the DVSA and the Health and Safety Executive (HSE). The latter was considered responsible for the provision of guidance and enforcement of vehicle safety on private building sites and premises, once they have been informed of a major failing.

11.1.3   Although Highways England were seen to have very little responsibility for vehicle safety, there was a suggestion that Highways England could run publicity campaigns with a vehicle safety focus, shared nationally by DfT.

Safe Vehicles Standards

11.1.4   DfT representatives saw the European New Car Assessment Programme (Euro NCAP) as the main mechanism for improving vehicle safety quality. They indicated that they DfT is currently carrying out a review of priorities for new vehicle safety regulation within the context of the current General Safety and Pedestrian Safety review and has supported the take up of Euro NCAP 5* rating + 60% pedestrian tests in the recent consultation by the Government car buying service.

11.1.5   The devolved administrations indicated they are reliant on central government for information on European Community Whole Vehicle Type Approval and anticipate the influence of BREXIT.

11.1.6   Vehicle standards were not expected to change post-BREXIT, with the suggestion by some that the UK will continue to adopt European standards.

11.1.7   London has specific procurement standards for lorries, for instance, standards on visibility such as the use of mirrors and sideguards. DfT representatives indicated that other cities are also showing interest in this scheme and that they prefer these initiatives to a national initiative.

11.1.8   Central government departments and agencies were aware of measures to address non-compliance to vehicle safety standards, such as:

   ○   Operation Trivium, conducted by police forces throughout Europe to target foreign vehicles; and
   ○   HSE improvement notices.

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Autonomous Vehicles

11.1.9   There were mixed views on the relationship between autonomous vehicles and vehicle safety, with some central government representatives suggesting that autonomous vehicles will bring about new vehicle safety issues which need to be resolved, and others suggesting that autonomous vehicles are too much in focus, lessening attention to other key measures.

11.2   Local Government

Stakeholder Interview Findings

11.2.1   There was little discussion with local government around safe vehicles apart from in London, where there was a focus on HGVs.

11.2.2   Few local authorities reported that they had embarked on policies to promote vehicle safety through public procurement. Some local government bodies have encouraged central government to review their plans for longer articulated vehicles carrying a greater weight. These plans are seen as dangerous for pedestrians, road side furniture and the overall network capacity, creating specific consequences for local authorities.

Road Safety Officer Survey Findings

11.2.3   Twenty six RSOs responded to the questions on Safe Vehicles in the online survey. When asked whether they require Euro NCAP 5* for all government service cars and taxis:

- 1 suggested they totally or mostly require this;
- 1 indicated they partially require vehicle to meet these standards;
- 3 do not require this at all; and
- 21 did not know.

11.2.4   All 4 of the RSOs who reported they partially or do not require Euro NCAP 5* did not know whether this requirement was planned for the future.

Local Authority Survey Findings

11.2.5   Twenty two local authority representatives answered a question on safe vehicles within the survey. When asked whether they require Euro NCAP 5 * for all government service cars and taxis:

- 3 do not require this; and
- 19 did not know.

11.2.6   Of the 3 representatives who reported not requiring Euro NCAP 5* for all government service cars and taxis:

- 2 suggested this is unlikely or not planned for the future; and
- 1 did not know if these requirements would be introduced in the future.

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11.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Safe Vehicle Standards

11.3.1 Several stakeholders pointed to the importance of the European review of vehicle standards and the many opportunities which existed for new mandatory requirements.

11.3.2 Euro NCAP ratings are valued by advisory groups, associations and charity stakeholders, as they encourage individuals and businesses to buy and procure cars with better safety standards and therefore have potential to improve the level of vehicle safety in the car market, including the used and autonomous vehicles market.

11.3.3 There was some suggestion that Euro NCAP and its promotion could be improved through:

- Introducing ratings based on pedestrian and cyclist safety; and
- Better promotion of 5* rated cars by central and local government, the British Vehicle Rental and Leasing Agency (BVRLA) and the insurance sector.

11.3.4 There was some focus on standards for HGVs and buses, with stakeholders suggesting that the following be considered:

- The safety of vulnerable road users, particularly pedestrians and cyclists, which could be improved through the introduction of minimum vision standards, such as the direct line of sight approach, in which drivers sit lower down in the cab. One stakeholder, with a cyclist safety remit, had been involved in EU lobbying surrounding this issue; and
- Better bus driving and design to prevent passenger injury and death, and better data on bus passenger injury and death.

11.3.5 One stakeholder suggested there should be greater clarity in vehicle safety standards, making particular reference to:

- Legislation outlining vehicle safety standards, making particular reference to AEB and ISA and the influence of these on all road users, including pedestrians;
- Government procurement processes; and
- Guidelines on child restraints, with the suggestion that the provision of multiple guidelines from both car and child restraint manufacturers makes it difficult to understand the standard expected.

Safe Vehicles Technology and Autonomous Vehicles

11.3.6 Future technology, autonomous vehicles and vehicle connectivity are seen as contributing factors in accident reduction by many advisory group, association and charity stakeholders, with a focus on Anti-lock Braking Systems (ABS), Electronic Stability Control (ESC) and Autonomous Emergency Braking (AEB).

11.3.7 Stakeholders made the following suggestions for advancement in safe vehicles technology:

- Satnav updates to incorporate new speed limits;
- Compulsory introduction of passenger airbags;

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- Advanced introduction of AEB;
- Technological advancements for motorbikes;
- A focus on key safety issues, rather than commercial value, within vehicle automation research;
- E-call, with concern surrounding the requirement of internet connection, which could mean the technology it is less available in remote areas, where it is needed the most; and
- The reduction of in-vehicle distractions, including touch screen interfaces built into cars.

11.4 Business and Industry

Stakeholder Interview Findings

Safe Vehicles Knowledge Sharing

11.4.1 Business and industry stakeholders reported attendance at regular forums and open days with car manufacturers and safety testers to discuss issues of mutual concern and gain a greater understanding of vehicle safety.

11.4.2 One stakeholder, with a responsibility for training drivers, educated trainers on vehicle safety as part of a post qualification course. There was a suggestion that this knowledge sharing practice would be further encouraged in the future, as an understanding of vehicle safety, for both driver trainers, and drivers, was seen as a large contributing factor to driver risk reduction.

Safe Vehicle Standards

11.4.3 The development of industry safe vehicle ratings, through Thatcham, the UK's Euro NCAP test centre, was acknowledged. These ratings calculate insurance risk and therefore influence insurance cost, with vehicles that are safer, for instance those with AEB, receiving lower risk and insurance costs.

11.4.4 The current process of updating General Product Safety Regulations (2005) was also acknowledged.

11.4.5 Multiple business and industry stakeholders encouraged compliance with safe vehicles standards, including support for vehicles with a 5* Euro NCAP rating, and saw no change in these post-BREXIT.

11.4.6 There were differing levels of encouragement within business and industry organisations with regards to safe vehicles. Some encourage and provide guidance and education on best practice in safe vehicle standards without prescription. Others encourage and ensure standard compliance through vehicle checks and audits, some of which have to be paid for, including tachograph assessments. One business and industry organisation reported awarding members for safety initiatives.

11.4.7 Concerns about vehicle safety from business and industry organisations included:

- Vehicle safety audits and checks are only conducted retrospectively, once a problem is identified;
- There should be an increased number of technical inspections (MOTs) to ensure vehicle safety standards are met;

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- Recall processes for faulty vehicles should be more efficient to ensure standards are met;
- The tourism sector has not expressed an interest in promoting vehicle safety standards in vehicle rental and lease;
- Compliance with standards is harder to measure for businesses using grey fleets;
- Euro NCAP 5* ratings are not always acknowledged by all who procure cars, with the suggestion that some may believe that if a car is available on the UK market then it is regulated by standards and safe. This attitude often means businesses and individuals do not procure vehicles with the highest safe vehicles standards and procure based on other factors. One business and industry stakeholder had targets for 2020 to ensure that 50% of cars leased will be Euro NCAP 5* rated;
- Features acknowledged in safety standards, such as AEB and head restraints technology, are not always built into vehicles, meaning they are costed with additional tax. If features were built in, and therefore not taxed and mandatory, stakeholders suggested that there would be a better uptake of safer vehicles;
- There was some suggestion that mandatory requirements should be evidence led; and
- Businesses and individuals buy and lease vehicles based on alternative factors, such as perks and price (as above).

Safe Vehicles Technology and Autonomous Vehicles

11.4.8   Business and industry stakeholders reported differing levels of involvement in safe vehicles technology, including assisted and autonomous vehicles. For instance, stakeholders were involved in:

- The production of legislation surrounding autonomous vehicles, such as the Automated Vehicles Bill currently being debated in government;
- The production of guidance for automated vehicles, outlining underlying safety criteria;
- Training for automated and assisted vehicles, ensuring that drivers still understand that they are responsible for the vehicle;
- The production and installation of technology, including active safety solutions (crash preventing technology), such as AEB, and passive safety solutions (crash performance technology), for instance, fire suppression systems and e-call technology; and
- The leasing of automated vehicles, although this only makes up a small percentage of the leasing fleet.

11.4.9   Most business and industry stakeholders encouraged safe vehicles technology and the development of assisted and automated vehicles, making reference to AEB and encouraging improvements in built-in notification systems, providing information on road layout, signs, street furniture, speeds, lane discipline, blind spots and pedestrian presence. Some stakeholders suggested that they would like to see a mandatory commitment and uptake of this technology.

11.4.10   There was a belief from many stakeholders that improvements in safe vehicle technology, and the development of assisted and automated vehicles, would result in short and long-term benefits. Specifically:

- In the short term, increased driver awareness and reduced driver error from the provision of more intelligent and safer cars on the road, leading to fewer road traffic

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accidents and less severe damage from these accidents. This short term benefit was thought to benefit most people, but some more than others;

> *"As technology does role out, the net impact of fewer collisions overall will benefit everybody, but will benefit certain groups more"*
>
> (Business and industry representative)

- In the long term, new cars with better technology will become more affordable, creating widespread safety benefits.

11.4.11 Stakeholders suggested that the following should be considered in the development of safe vehicles technology, including assisted and automated vehicles:

- Cost:

  - With an awareness that smaller manufacturers are finding it difficult to afford technological developments and the research and development costs associated with implementing them. There was a suggestion that this could be overcome through the introduction of different transitional periods for safety features, depending on the size of the manufacturer; and
  - With an appreciation that benefits will be less evident for those who cannot afford cars with such technology, including automated and assisted vehicles. This was thought to disadvantage younger drivers the most.

- Insurance aspects, including clarity over driver liability and responsibility;
- A clear distinction between automated and assisted vehicles, with reference made to ABI and Thatcham's Regulating Automated Driving Report' as good evidence of this distinction. There was also a concern over unclear automation levels, with the suggestion that levels 3 and 4 provide the same level of technological functionality but different levels of driver involvement. Stakeholders asked that these levels be better managed and would like to see a Government White Paper outlining transition paths; and
- Limitations of the technology, with the suggestion that developers should address:

  - The steps that are in place should the technology fail; and
  - That there are some things such vehicles cannot do, for instance, they will not have a Theory of Mind and cannot perceive the same way a human would.

- Impacts on the network, for instance the new types of crashes created, and road design;
- Impacts on driver behaviour, with one stakeholder referring to research conducted by Goodyear that showed drivers are more willing to take risks when confronted with an autonomous vehicle on the road. However, there was an awareness that this study had a small sample size, and may therefore be unrepresentative;
- The influence of global regulations which can hinder improvements more locally; and
- Competitiveness within the industry which is thought to create:

  - Secrecy, reducing the willingness to share advancements; and
  - A tendency to over-claim technological capabilities within marketing which influences driver expectation.

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> *"People advocated far too much responsibility to assisted technology, thinking it's almost autonomous. For example, they'll say that ABS is almost going to take over and drive a vehicle out of a skid for you and it doesn't happen"*
>
> *"we are a bit concerned that there will be a blurring of the lines where you'll get cars that have some really good safety technology built into them…but if the manufacturers are inclined to overclaim and say, 'oh, it's an automated car, this is a driverless car, this is like the Google car, you can sit back and read your phone messages, and read the paper whilst you drive' we are really worried that if they are still relying on the driver as the back-stop you've got issues over driver instruction…we are keen than that doesn't happen"*
>
> *"I think the worst computer is already better than the best human, but the mixture of humans and computers is a big concern and I don't think we've worked out what that means for road design"*
>
> (Business and industry representatives)

Fleet Company Survey Findings

11.4.12 Seventeen fleet company managers responded to the questions on safe vehicles in the online survey. Of these:

- 6 indicated that their major clients set specific safety requirements when procuring transport services, 9 indicated that they do not and 2 did not consider this question applicable to them; and
- 9 indicated that their companies require Euro NCAP 5* for all cars purchased of used by the company, 7 indicated they do not, and 1 did not consider this question applicable to them.

Road Haulage Company Survey Findings

11.4.13 Four road haulage company managers responded to the questions on safe vehicles in the online survey. Of these:

- 2 indicated that their major clients set specific safety requirements when procuring transport services, 2 indicated that they do not; and
- 2 did not require Euro NCAP 5* for all cars purchased of used by the company, 2 did not consider this question applicable to them.

11.5   Emergency Services

Stakeholder Interview Findings

Safe Vehicles Enforcement

11.5.1 There was acknowledgement of the work of the police in the enforcement of vehicle safety, making reference to Carriage of Dangerous Goods checks and commercial vehicle units operations, including Operation Trivium.

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Safe Vehicles Education

11.5.2   One emergency service stakeholder reported working with QuickFit to deliver community road safety mornings, providing information to the general public on car maintenance and tyre checks. Another cited engagement in social media campaigns addressing tyre and vehicles safety.

Safe Vehicles Technology

11.5.3   There was an acknowledgement of safe vehicles technology by most emergency services representatives.

11.5.4   In their own vehicles, some emergency services have installed speed limiters which can be overridden in an emergency situation.

11.5.5   Emergency service stakeholders have been invited to look at car designs by car manufacturers to gain an understanding of vehicles, including the introduction of new technology. Additionally, mobile data terminals, used by the fire service, were seen to have value, providing information on specific vehicle design and technology in order to aid the identification of issues during response to road traffic accidents.

11.5.6   Some raised concerns over the introduction of the e-call system which sends an automated alert to emergency services when a car is involved in a road traffic accident. This system was believed to overlook:

- ○   The number of external calls also made, with accidents occurring in a busy urban area likely to receive calls from several other witnesses; and
- ○   The clinical need of those involved in the accident, as the e-call system works outside of the emergency services triage processes, meaning all calls are attended to, without knowledge of the level of emergency care required. This can be seen to stretch the limited resource of emergency services.

Police Force Survey Findings

11.5.7   Only one of the ten police forces who responded to questions on safe vehicles in the online survey indicated that their force required Euro NCAP 5* for all police service cars. The remainder did not know.

11.6   Academic Institutions

Stakeholder Interview Findings

Safe Vehicle priority

Several vehicle safety experts identified the need for monitoring and setting quantitative targets for improving safety of the vehicle fleet using Euro NCAP ratings, as used in other countries.

Safe Vehicle Standards

11.6.1   Academics believed that Safety standards, set in legislation, such as the forthcoming European General Safety Regulations and Pedestrian Safety Regulations, to have value for vehicle safety and road safety more generally, with a focus on improving outcomes for vulnerable road users. A commonly expressed view was that European Community Whole

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Vehicle Type Approval should continue post-BREXIT, due to the demand on UK legislative resource if this was not the case.

11.6.2 Academic institutions encouraged public procurement based on such standards and on the following systems:

- Euro NCAP 5* rating;
- UK SHARP ratings;
- Stars on Cars; and
- Motorcycle safety helmet ratings, such as Stars on Helmets.

11.6.3 The following suggestions were made for improvements to vehicle safety standards to reduce potential casualties:

- Regulation on driver distraction with any in-vehicle technology which causes the driver to have their eyes off the road for longer than 2 seconds being disengaged until the engine is switched off (it was suggested that this regulation could be provided by a new body with guidance from SMMT);
- Basing standards on crash tests using female, child and elderly dummies, as they are currently based upon the height and weight of an average North American male;
- A greater understanding of standards for electric vehicles, which do fall within the current European Community Whole Vehicle Type Approval, but specific additional requirements are still unclear;
- A greater understanding and regulation of standards for autonomous vehicles, which will probably require a new European Community Whole Vehicle Type Approval class;
- A greater focus on the mitigation of death and serious injury;
- Greater promotion of standards, such as Euro NCAP 5* by fleets and leasing industry, including holiday rentals;
- Increased conformity to standards with vehicle checks and audits;
- A greater acknowledgement of vehicle safety standards by the DfT at strategic and technical levels, with the provision of funding to Euro NCAP from central governments, as once was, to ensure engagement with and influence; and
- A national scrappage scheme for vehicles with poor vehicle safety standards, in order to fast track improvements.

11.6.4 There was some concern that vehicles made with small production numbers can be excluded from safety standards, such as European Community Whole Vehicle Type Approval.

11.6.5 Additionally, some were concerned around the DFTs involvement in The UNECE World Forum for Harmonization of Vehicle Regulations (WP.29), as it does not mandate standards, nor cover vehicle safety standards for vehicle automation, discussed below.

Safe Vehicles Technology and Autonomous Vehicles

11.6.6 Academic institutions showed awareness of automated vehicles technology, making reference to the Society of Automotive Engineers' Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles.

11.6.7 Academic stakeholders suggested that the following should be considered in the development of safe vehicles technology, including assisted and automated vehicles:

SYSTRA

- Promotion of new technologies at an EU level, creating updates to standards (e.g. Alcolocks and pedestrian protection airbags);

- Prioritising advanced collision avoidance measures that provide the most safety benefit, especially for vulnerable road users, with a suggestion that this would also be a better use of resources. However, some also acknowledged that some collisions may be unavoidable, and therefore there should also be a focus on passive safety performance;

- Greater focus on motorcycle technology, with acknowledgement of the benefits of ABS and bigger headlights and concerns for the electrification of motorcycles and what this means for faster acceleration;

- The types of crashes possible with automated vehicles, with concern for the safety of 'out of position' occupants;

- Driver distraction, with attention to safety being referenced in levels 2 and 3 of vehicle automation. The National Highway Traffic Safety Administration guidelines on driver distraction were seen to have value;

- Driver expectations, misunderstanding and over-trusting of automated technology; and

- A focus on key safety issues, rather than commercial value. There was some concern that the DfT had only just become engaged in the European Commission's High Level Group GEAR (2030) for reporting on automotive competitiveness and sustainability.

SYSTRA

12.   INTERVENTION: SAFE ROAD USE

12.1   Central Government Departments/Agencies

Stakeholder Interview Findings

Safe Road Use Priorities

12.1.1   Multiple central government departments/agencies cited priorities for safe road use interventions, including reference to those in the British Road Safety Statement. These priorities address road user groups and networks, as well as specific driving behaviours, and include: young drivers, motorcyclists, school children and rural roads.

12.1.2   There is some concern that other areas, such as pedestrians and older drivers, are not prioritised in safe road use interventions, with the suggestion that a lack of resource has hindered investigation of the Older Drivers Task Force's 'Supporting Safe Driving into Old Age' report.

12.1.3   More generally, road safety, and therefore safe road use, was thought to lack priority in the freight industry, despite factors such as fatigue management being high priority for roads policing.

Safe Road Use Education

12.1.4   The success of safe road use education, for instance Bikeability, diversionary courses, Kerb Craft and Traffic Club were noted by central government departments and agencies. Diversionary courses are only used by one devolved administration.   There was an awareness that resource constraints have had an impact on safe road use education.

12.1.5   Central government departments and agencies are looking to improve safe road use education through an analysis of research to understand its effectiveness, with particular reference made to diversionary courses, safe road use education in secondary schools and the present Driver 2020 project, coordinated by TRL, in which the 5th intervention is an evaluation of in-school education interventions. Additionally, DfT have expressed an interest in safe road use education being part of the national curriculum, with a Department of Education consultation currently addressing this issue.

Safe Road Use Enforcement

12.1.6   There is a belief that police enforcement of mobile phone use had fallen and drink-drive enforcement had become better targeted.

12.1.7   There is an awareness that police resource constraints and delays in the implementation of evidential breath testing equipment have had an impact on safe road use enforcement.

> *"Stakeholders are concerned that in a world of cuts, police do not have the resources to properly enforce things that people would like to be enforced on the strategic road network… things like people sat in middle lanes and undertaking or speeding, even if they don't directly lead to incidents, they make people feel unsafe…people feel like the police aren't doing or are able to do what they should be doing to stop those things."*
>
> (Central government department/agency representative)

SYSTRA

12.1.8   Central government and agency representatives referenced multiple monitoring methods for addressing safe road use, namely:

- ⭕ Black box technology, with the suggestion that insurance industry activity is promising;
- ⭕ Video monitoring, to spot atypical driving, such as seat-belt use, drink and drug driving and mobile phone use; and
- ⭕ Current trials in London of alcohol tags, which monitor alcohol consumption as part of a Community Order Scheme, and could be used to monitor drink driving.

Safe Road Use Standards and Licensing

12.1.9   There was some awareness of desire for changes to licensing for motorcycles, as provisional license motorcycle riders could gain twelve points before the automatic loss of a licence, compared to the six points allowed for full licence holders. Central government and agency representatives therefore suggested restrictions, such as motorcycle license withdrawal if six points are gained on a provisional licence, within a two year period and the introduction of theory tests for novice riders. These suggestions reflect those made in the recent DVSA consultation, 'Improving moped and motorcycle training'. However, central government and agency representatives understood that changes may not be implemented due to legislative resources being focused on BREXIT. Additionally, post-BREXIT, there was some concern for the future of the current graduated access system for motorcycle licensing.

12.1.10   Representatives reported a focus on improving and evaluating the promotion of user standards, such as cycling and motorcycle helmet use; no monitoring is currently conducted on helmet use.

12.1.11   Additionally, they reported a focus on regulating the standard of driver trainers/ instructors, who are recognised as being of a higher standard than most EU countries. For instance, changing the grading structure for driver trainers from 1-6 to ABC and changing qualifying processes to include observation of a real lesson, rather than role play.

12.1.12   Changes to driver training, which came into effect in December 2017, were also noted. DfT and agency representatives indicated that the changes have value, however, the evidence to support them was questioned. They also suggested that insurance premium increases, which do not reflect the low risk of accompanied driving during pre-test learning, have impacted the ability of parents to provide driver training to learner drivers.

12.1.13   There was recognition that safe road use standards are hard to enforce for foreign vehicles and operators.

12.2   Local Government

Stakeholder Interview Findings

Safe Road Use Priorities

12.2.1   Local government representatives suggested that strategies for addressing safe road use are focused on:

SYSTRA

- Multi-agency working with health and education sectors, the police, fire and rescue services and Highways England;
- Priorities, identified after engagement with local people, rather than evidence-based; and
- National campaigns.

12.2.2　They reported that safe road use priorities are shared by local government advisory groups in workshops and conferences.

Safe Road Use Education

12.2.3　Multiple local government representatives made reference to safe road use education, recognising Traffic Club, Kerb Craft and Fire Service education activities, but they questioned whether these were widely implemented.

12.2.4　Local government representatives raised concerns including:

- The effectiveness of the enhanced hazard perception education programme is still being evaluated; and
- The lack of resource and volunteers has led to road safety education not being available in all schools.

Safe Road Use Enforcement

12.2.5　There was an awareness of multiple enforcement activities, such as enforcement at junctions to ensure cyclist safety and camera partnership activity.

12.2.6　However, they saw available police resources as having effect on safe road use enforcement. Multiple local government representatives highlighted a need for increased roads policing, and suggested that budget should be set aside for roads policing, in order to encourage enforcement with limited resource.

Other Safe Road Use Interventions

12.2.7　Local government representatives referred to multiple additional methods for addressing safe road use, these included:

- Mass media and social media campaigns;
- School and business travel planning, with the observation that school travel planning has become less of a focus; and
- Encouraging stiffer penalties at lower blood-alcohol levels.

General Barriers to Safe Road Use Interventions

12.2.8　Barriers to safe road use intervention cited by local government representatives included:

- A lack of national consistency, creating mixed-messaging;
- Insufficient lead time on national calendars; and
- Little opportunity for evaluation.

Road Safety Officer Survey Findings

12.2.9　Twenty seven RSOs responded to the questions on Safe Road Use in the online survey.

SYSTRA

12.2.10   RSOs were asked whether safety standards and rules set for licensing and disqualification satisfactorily address high-risk groups:

- ⭘   9 indicated that the standards and rules are totally or mostly satisfactory;
- ⭘   3 suggested that they are partially satisfactory;
- ⭘   4 reported that they are not at all satisfactory; and
- ⭘   11 did not know.

12.2.11   Of the 7 RSOs who indicated that safety standards and rules for licensing and disqualification only partially, or do not at all, address high-risk groups:

- ⭘   2 indicated it is not planned, or is unlikely for the future; and
- ⭘   5 did not know.

12.2.12   RSOs were subsequently asked whether publicity and enforcement are coordinated for excess alcohol, seat belt and child restraint use, in-car telephone use by drivers, and fatigue management:

- ⭘   15 reported it is totally or mostly in place;
- ⭘   10 suggested partial coordination; and
- ⭘   2 indicated that there is no coordination at all.

12.2.13   Of the 12 RSOs who reported that publicity and enforcement are partially or not at all coordinated:

- ⭘   7 stated that future coordination is likely, or is being planned;
- ⭘   1 commented that it is unlikely, or is not planned for the future; and
- ⭘   4 did not know.

12.2.14   In response to being asked if road safety education and training is embedded within a Safe System approach and focused on high-risk groups:

- ⭘   10 of RSOs reported this is totally or mostly the case;
- ⭘   8 indicated this is partially the case;
- ⭘   7 suggested this does not happen at all; and
- ⭘   2 did not know.

12.2.15   Of the 15 RSOs who suggested that road safety education and training was partially or not at all embedded within a Safe System approach and focused on high-risk groups:

- ⭘   10 indicated that this is planned, or is likely to be implemented in the future;
- ⭘   2   suggested that this is not planned for the future, or is unlikely to occur; and
- ⭘   3   did not know.

12.2.16   Lastly, RSO's were questioned as to whether an integrated approach encompassing both education and engineering is adopted in addressing school journey safety:

- ⭘   15 indicated that this was totally or mostly the case;
- ⭘   8 reported partial adoption of an integrated approach;
- ⭘   3 stated this is not at all the case; and
- ⭘   1 did not know.

12.2.17   Of the 11 RSOs who suggested that an integrated approach was partially or not at all adopted in addressing school journey safety, within their local authority:

SYSTRA

- **O** 3 suggested this is planned, or is likely to occur in the future;
- **O** 3 stated this is unlikely, or not planned for the future; and
- **O** 5 did not know.

Local Authority Survey Findings

12.2.18   Twenty two local authority representatives responded to the questions on safe road use in the online survey.

12.2.19   Local authority representatives were asked whether safety standards and rules set for licensing and disqualification satisfactorily address high-risk groups:

- **O** 3 indicated that the standards and rules are totally or mostly satisfactory;
- **O** 4 suggested that they are partially satisfactory;
- **O** 2 reported that they are not at all satisfactory; and
- **O** 13 did not know.

12.2.20   Of the six local authority representatives who indicated that safety standards and rules for licensing and disqualification only partially, or do not at all, address high-risk groups:

- **O** 2 indicated it is not planned, or is unlikely for the future; and
- **O** 4 did not know.

12.2.21   With regards to whether publicity and enforcement are coordinated for excess alcohol, seat belt and child restraint use, in-car telephone use by drivers, and fatigue management:

- **O** 16 of local authority representatives reported that coordination occurs totally or mostly;
- **O** 1 suggested partial coordination;
- **O** 1 indicated that there is no coordination at all; and
- **O** 4 did not know.

12.2.22   Of the two who reported that publicity and enforcement are partially or not at all coordinated:

- **O** 1 stated that future coordination is likely, or is being planned; and
- **O** 1 commented that it is unlikely, or is not planned for the future.

12.2.23   Local authority representatives were also asked to consider if the amount of police enforcement of key road safety rules is sufficient to address local road safety needs, goals and targets:

- **O** 4 deemed the amount of enforcement to be totally or mostly sufficient;
- **O** 5 felt it is partially sufficient;
- **O** 9 stated it is not at all sufficient; and
- **O** 4 did not know.

12.2.24   Of the 14 who suggested that the amount of police enforcement of key road safety rules, was partially or not at all sufficient to address local road safety needs, goals and targets:

- **O** 1 indicated that something is planned, or that future changes are likely;
- **O** 7 suggested that nothing is planned, or that future changed are unlikely;
- **O** 5 did not know; and
- **O** 1 did not respond.

SYSTRA

12.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Safe Road Use Education and Training

12.3.1   Advisory group, association and charity representatives reported engagement in safe road use education and training including the provision of:

- Safe cycling education videos;
- Bikeability training for both trainers and attendees, with the suggestion that DfT training could greatly improve outreach; and
- Voluntary re-assessment and education programmes for elderly people.

12.3.2   Safe road use education and training was thought to be improved through:

- The adoption of a holistic approach, such as Safe System, in which all road users are educated on risks;
- The involvement of parents, who can influence safe road use, both during their children's driver training and when buying car seats. There was hope that research would support the implementation of tools to support this intervention; and
- Embedding road safety education in schools, before children are independent road users, taking child development issues into account.

> *"Children need to be taught basic principles [of road safety] because the world is a dangerous place and you need to be aware of the environment and you need to know what you should be doing to deal with the hazards because you are never going to be able to take them all away."*
>
> (Advisory group, association and charities representative)

Safe Road Use Enforcement

12.3.3   Advisory group/association/charity representatives raised concerns on safe road use enforcement, which included:

- Roads policing resource, with the suggestion that it is not prioritised or monitored by Police and Crime Commissioners;
- Reductions in the number of operational speed cameras;
- The lack of enforcement in relation to driver distraction, especially with an increase of in-car devices. There was a suggestion that research and regulation on driver distraction should be prioritised; and
- A lack of policing coordination.

Safe Road Use Standards and Licensing

12.3.4   There is strong support amongst advisory group/association/charity representatives for graduated driver licensing (GDL), eye sight tests and greater regulation of older drivers, and restrictions on which cars you can drive when you first pass your test, as is the case for motorcycle riders (although this was not supported by all representatives).

SYSTra

12.3.5   There are mixed views surrounding safe road use communication campaigns, some advisory group/association/charity stakeholders suggested that the THINK! campaign is effective and well-coordinated and therefore should continue to be funded, and others suggested that there is insufficient lead time for implementation.

12.3.6   Additionally, cinema, television advertising and social media communication were seen to be effective, however, there is an awareness that reduced advertising in the last five to six years has created a deficit in national awareness of safe road use.

Other Safe Road Use Interventions

12.3.7   Advisory group/association/charity representatives made reference to multiple other methods for addressing safe road use, which include:

- Road safety awards, recognising the achievement of organisations in the implementation of road safety initiatives;
- The use of telematics; and
- Addressing cyclist and pedestrian motorist intimidation.

12.4   Business and Industry

Stakeholder Interview Findings

Safe Road Use Priorities

12.4.1   Business and industry stakeholders made reference to the following priorities, in their implementation of safe road use interventions:

- Young drivers;
- Older drivers;
- Drink driving;
- Mobile phone use; and
- Fatigue management.

12.4.2   There was some concern that safe road use is not prioritised during road design as designers and transport psychologists do not know enough on how to design the right road for good use.

Young Driver Safe Road Use

12.4.3   Young driver safe road use was identified as a key priority for business and industry representatives because this user group:

- Have the most serious accidents, some requiring life-long care;
- Make the most frequent and costly car insurance claims; and
- Lack confidence on the road, therefore increasing their risk of accident involvement. This belief was supported by research from the University of Greenwich, assessing contributing factors to young driver accident risk.

12.4.4   There are differing levels of engagement in the promotion of young drivers safe road use, with some business and industry representatives actively engaged in young driver training

SYSTRA

and others engaged in providing financial incentives, such as lower insurance premiums, for safe use of the road, and social media messaging.

12.4.5 Graduated Driver Licensing (GDL) was viewed favourably, with supportive international evidence and the planned implementation in Northern Ireland cited as reasons for UK implementation. If GDL were to be implemented in the UK, representatives suggested that corresponding insurance premiums and impact on employment should be considered, so that GDL does not influence employability.

12.4.6 The Driver 2020 project was seen as an important assessment of safe road use interventions for young drivers, with particular reference made to controlled trials on hazard perception, driving logs and reflections, the engagement of parents and road safety classroom delivery.

Safe Road Use Education and Training

12.4.7 Some business and industry stakeholders felt negatively toward the Goals for Driver Education (GDE) Matrix, which outlines levels of driver training for ADIs, suggesting that as a system it compartmentalises learnt behaviours and psychological factors does not address the influence of social context, social pressures and attitudes on lower-level learnt behaviours, such as manoeuvres.

12.4.8 Positively cited examples of safe road use education and training include:

- Specific driver training for drivers with diverse needs, such as physical disabilities, hidden learning and medical conditions, by encouraging greater involvement from GPs, who do not necessarily know how certain medical conditions will impact driving;
- Education programmes addressing safe road use best practice in the fleet industry; and
- Support for education campaigns based on the safe use of high-speed road networks.

Safe Road Use Monitoring

12.4.9 Monitoring technology, such as telematics is seen to be valuable for the promotion of safe road use, due to the provision of incentives and feedback which can influence driver behaviour.

Safe Road Use Communication

12.4.10 Multiple business and industry representatives suggested that safe road use best practice was communicated with members and the public through the following methods:

- Weekly member news feeds, some via email, to remind individuals of safe road use initiatives, such as safety around cyclists, and changes to legislation, such as mobile phone use. These are increased during national road safety campaigns;
- Conferences, with organisations hosting and encouraging members attendance;
- Social media, with the suggestion that this is the best way to reach small businesses; and
- Instant messenger.

12.4.11 Barriers to these methods of communication which include:

SYSTRA

- Conferences are usually attended by larger organisations who receive information on safe road use from other parties anyway whilst smaller companies, who do not receive a lot of information, are not in attendance; and
- It is unclear whether companies, particularly smaller ones who have less time and resource, are actively engaged in membership news feeds.

12.5 Emergency Services

Stakeholder Interview Findings

Safe Road Use Strategy

12.5.1 Multiple emergency service representatives reported the use of a service or road safety partnership strategy for addressing safe road use and road traffic accident reduction. These strategies are seen to inform emergency services powers, joint-working and actions and are often based on national calendars such as NFCC, NPCC, Highways England and the THINK! campaign.

12.5.2 Multiple emergency service representatives suggested that safe road use strategies are shared with others. The primary methods of sharing include:

- Direct communication with external road safety partners, such as local authorities;
- Whole service internet discussion forums; and
- Practitioner days and seminars with other services, to share road safety initiatives and best practice. These usually have themes, for instance, specific road user groups and resources.

Safe Road Use Education

12.5.3 Emergency service representatives reported engagement in safe road use education, which include:

- 'Safe Drive, Stay Alive' in schools, or a local equivalent, with dramatised, theoretical and practical components;
- Practical education programmes, pre- and post-test, such as older driver sessions, to refresh driving skills and re-educate, BikeSafe (motorcycles), Bikeability and BikeRight (cycling) schemes. These initiatives are mostly carried out by police and fire services;
- Safe Road Use education with community groups of all ages, mostly conducted by the fire service. This was either in presentation format or through attendance at road safety interactive experience centres;
- Education for ADIs to encourage them to address the psychological elements of driving in their lessons, such as drink and drug use, peer pressure, distractions and independent thinking; and
- Driver awareness courses, some delivered after non-compliant road use and some open to all members of the public. These address different aspects such as speed, mobile phone use, and the emotional demands on emergency services and are mostly conducted by police forces, with some input from the fire service, to make the public aware that KSI reduction is a joint working project. Some emergency services include a practical element within these courses, in order to make individuals aware of scenarios they may, *"see, be involved with, or create"* through their non-compliant driving behaviours.

SYSTra

12.5.4 Despite the value placed on safe road use education, multiple emergency services noted barriers to its implementation. These are:

- The difficulty in scaling successful local projects to whole emergency services;
- Legislation on statutory responsibility, such as the Fire and Rescue Services Act (2004), which outlines the duties of emergency services, with a focus on public protection from serious harm, with no recognition for road safety education in this duty;
- Non-compliant courses are only delivered to those who have been identified conducting non-compliant behaviour, there was some suggestion that regular re-testing should be completed to ensure that drivers are continually educated on safe road use;
- Stretched funding, which has caused some services to shrink to statutory responsibilities and neglect road safety education; and
- Stretched resource, with some emergency services using road safety delivery volunteers to compensate for resource restrictions.

12.5.5 There was some suggestion that emergency services would like to do more safe road use education in the future, such as greater participation in safe road use education campaigns in order to further increase public awareness of road safety, with an additional focus on educating the public on what actions to take when an emergency vehicle approaches them under emergency driving conditions. There was the suggestion that this could be delivered in video format.

Safe Road Use Enforcement

12.5.6 Emergency services, particularly the police, reported large engagement in safe road use enforcement, for instance:

- Safe/Close Pass schemes, in which police officers go out on bikes and a supporting enforcement team stops anyone who passes the bike with less than 1.5m clearance;
- Enforcement of particular behaviours, such as seat-belt use, mobile phone use, tailgating and speeding;
- Enforcement of particular road sections, using intelligence from the public to direct deployment of enforcement teams to areas of concern or high collision risk;
- Enforcement of prolific offenders; and
- The use of ANPR cameras to check for expired licenses.

12.5.7 Safe road use enforcement is often planned in advance and coordinated nationally, with other emergency services and recognised calendars, such as NPCC.

12.5.8 The following improvements to safe road use enforcement were suggested:

- Greater national consistency in enforcement across forces for all non-compliant behaviours;
- More assertive enforcement;
- The use of dashcam evidence;
- Making roads policing a priority and increasing awareness of enforcement by roads policing, with support from senior management; and
- Faster introduction of evidential breath testing equipment.

SYSTRA

Other Safe Road Use Interventions

12.5.9   Emergency services referenced multiple other methods for addressing safe road use, these are:

- The use of signage on the roadside to inform road users of risks;
- Radio advertisements addressing national campaigns, such as drink driving;
- Social media campaigns;
- Community outreach, going to where young drivers congregate to interact with them; and
- Speaking at road safety events.

General Barriers to Safe Road Use Interventions

12.5.10   Barriers to safe road use intervention cited are:

- Time and resources;
- General awareness of the importance of the road safety agenda;
- The priority given to road safety; and
- Lack of national consistency in the implementation of road safety.

Police Force Survey Findings

12.5.11   Ten police force representatives responded to the questions on safe road use in the online survey. Asked whether safety standards and rules set for licensing and disqualification satisfactory address high-risk groups:

- 2 considered they did so mostly;
- 2 considered them did so partially;
- 3 thought they did not at all; and
- 3 did not know.

12.5.12   Of those who answered partially/not at all, one stated that future work was planned in this area, two indicated that no future work was planned, and two respondents did not know.

12.5.13   Asked whether publicity and enforcement is coordinated for excess alcohol, excess speed, seat belt and child restraint use, in-car telephone use by drivers, fatigue management:

- 5 considered it is totally coordinated;
- 1 considered it mostly coordinated;
- 3 thought it was partially coordinated; and
- 1 did not know.

12.5.14   Of those who answered partially, one stated that future work was planned for in this area, and two did not know.

12.5.15   Asked whether they thought there is consistency in how key road safety offences (causally related to death and serious injury) are treated in national enforcement policy:

- 3 said totally;
- 2 said mostly; and
- 5 did not know.

SYSTRA

12.5.16   Asked whether road safety education and training is embedded within a Safe System approach and focused on high-risk groups:

     ○   2 considered it mostly embedded;
     ○   4 considered it partially embedded; and
     ○   4 did not know.

12.5.17   Of those who answered partially embedded, 3 suggested that future activity was (or was likely to be) planned in this area, whilst one did not know.

12.6   Academic Institutions

Stakeholder Interview Findings

Young Driver Safe Road Use

12.6.1   Young drivers standards which manage the exposure to risk in the early years of driving and riding were seen to have much value in the improvement of road safety by representatives from academic institutions.

12.6.2   Multiple academic institution representatives indicated involvement with the Driver 2020 project (2017-2020). This project aims to test 5 potential solutions for addressing young driver safety risks, pre- and post-test, including improved hazard perception training.

12.6.3   Past ministerial opposition to GDL was noted. Results from the planned GDL implementation in Northern Ireland were believed to have value for the possibility of UK implementation, due to similarities in context including driving culture and driving age.

12.6.4   There was support for an increase in driving age, in the interests of safety.

Other Safe Road Use Interventions

12.6.5   Academic institutions referenced multiple other methods for improving safe road use, these are:

     ○   DfT's new approach to innovation in road safety interventions;
     ○   A focus on driver distraction, due to an increase in in-car devices, with suggestions that enforcement of in-car device use is needed;
     ○   Self-regulation of older drivers, drink and impaired drivers and speeding drivers;
     ○   Infrastructure development through the Safer Roads Fund; and
     ○   Improvements to vehicle safety, such as 'alcolocks' and seat-belt reminders.

SYSTRA

13. INTERVENTION: POST-CRASH CARE

13.1 Central Government Departments/Agencies

Stakeholder Interview Findings

13.1.1 There was little discussion with central government and agencies around post-crash care and it was not possible to secure an interview with either the Department for Health or Public Health England. However, Department for Transport representatives consider that whilst improvements in trauma care have made a significant contribution to reducing road deaths, more work is still needed in this area.

13.2 Local Government

Stakeholder Interview Findings

13.2.1 There was little discussion with local government around post-crash care but the local authorities engaged are aware of the move from local care to regional trauma care centres. There is a view that more consideration to improving post-crash care would further reduce the negative consequences of injuries and long-term rehabilitation costs.

13.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

13.3.1 There is an awareness amongst some advisory groups, associations and charities that there have been improvements in post-crash care with the introduction of trauma centres, rapid response units and first response units.

13.3.2 It was suggested that further improvements to post-crash care could be achieved with:

- Improved reporting systems to ensure the right medical intervention is received;
- Strategic placing of trauma units, involving discussions between Highways England, the Department for Health and police services;
- Measures to reduce unnecessary use of the ambulance service by the general public, thus helping the ambulance service to better achieve target response times; and
- Accelerating the introduction of eCall into the market.

13.4 Business and Industry

Stakeholder Interview Findings

13.4.1 The importance of post-crash care (including fast access by emergency services, fast post-crash care and accurate diagnoses) in achieving successful outcomes was highlighted by many business and industry stakeholders. These stakeholders also highlighted the importance of:

- Adequate driver training for emergency vehicle drivers;
- Promotion of fire suppression and eCall systems; and
- Ensuring that the lack of hard shoulders on future smart motorways does not impact on the ability of emergency services to reach crash sites.

SYSTra

13.5   Emergency Services

Stakeholder Interview Findings

13.5.1   Emergency service stakeholders consulted consider that post-crash care is generally very good in the UK. In terms of the ambulance service it is believed that post-crash care compares favourably to international standards and has made great strides in improving outcomes in recent years. Much of this is considered to be down to improved working between the emergency services, with more training and sharing of expertise. Many examples of current and improved good practice relating to post-crash care (sometimes specific to the areas consulted) were provided, as follows:

Trauma Care

- The 999 service, which now identifies clinical needs, the treatment which can be performed at the roadside, and the best location for ongoing treatment;
- The development (over the last 10 years) of regionalised major trauma centres, and trauma units in hospitals. This development was based on international research which provided evidence that regional major trauma centres are more effective for life preservation than local hospital care, even if they are further away than local hospitals. Trauma Audit and Research Network (TARN) data has replicated this finding and recommends this system; and
- The development (over the last 10 years) of taking people with traumatic brain injuries to neuroscience centres, irrespective of whether they need an operation, to receive neuroscience specific nursing, physiotherapy and diagnostics. TARN research shows that with a specific severity of head injury, neuroscience centre care increases survival rate, relative to standard care. This effect was even significant after controlling for the need of neurosurgical operations.

Police Service

- Police officer training (in some areas, at least) now includes more advanced first aid training and training on what to do if you are first to the scene of a bike accident, and police vehicles now carry emergency medical equipment such as defibrillators; and
- Provision of a community road safe morning (in one area), provided by the police and fire service, which includes informing participants what to do if they are first to the scene of an accident.

Ambulance Service

- Improved staffing on air ambulances, which usually have a consultant level doctor, experienced in trauma care, and a specialist paramedic, thus providing a faster response time and delivery of more aggressive roadside treatment (e.g. surgery); and
- Improved training of ambulance crew to paramedic level.

Fire Service

- Provision of a five day advanced emergency care course (by the ambulance service in a rural area) to operational staff in the fire service, enabling them to administer medical care if they arrive first on the scene. The course covers emergency care theory and practical sessions to enable the fire crew to identify advanced signs and

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symptoms, e.g. of internal bleeding, and to carry spinal boards, neck collars, pelvic straps and defibrillators to aid immobilisation and emergency medical care. As a result, the fire service can now give the best care to sustain life and feed important medical information to paramedics once they arrive, creating a faster professional medical response and a more coordinated system to sustain life. Being able to administer more advanced treatment enables quicker removal from vehicles without having to be cut out. As a result, outcomes are reported to have improved;

○ An improved system on mobile data terminals on fire engines, which carries detailed information on every make and model of car, so information such as airbags, safety systems and battery location can quickly be determined, thus enabling the crew to know where to cut the vehicle to release people safely, preventing explosions and reducing dust levels which can get into cuts;

○ Recent changes in road-collision gear from generator powered to battery operated means it is lighter, quicker and easier to use and is quieter and therefore reduces stress for those involved in an incident; and

○ Improvements in fire fighters' ability to treat people in vehicles has led to removal of targets for time to get people out of vehicles and encouraged fire fighters to take their time, with better outcomes.

> *"[The] health service, in general, is very keen to minimise the effects of major trauma, often sustained in vehicle accidents or on the roads. Trauma care has been recognised as a speciality over the last 20/25 years and we now divert victims of major trauma away from local care providers to specialised units, known as major trauma centres. We use a variety of means of doing that, from aggressive treatment at the roadside from specially trained paramedics and critical care paramedics, in addition we have different responders, such as air ambulance and specially trained trauma doctors who go to the scene of injury to stabilise patients ahead of them being transferred to specialist care providers. That's all changed as of recently, as has the general standard of interventions that clinicians make."*
>
> (Emergency service representative)

> *The last couple of road traffic collisions I've been to, the [fire] crews have got them out very, very quickly onto a spinal board, secured and immobilised, just as the ambulance is pulling up and the paramedics think it's fantastic that they don't have to wait 20-30 minutes for us to cut the car to pieces just for them to get to the patients… it has speeded up the process."*
>
> (Emergency service representative)

13.5.2 Suggested improvements to post crash care, which would improve outcomes, mainly focussed around:

○ Increased resources to reduce delays in emergency services attending incidents;

○ Rolling out more medical training for firefighters; and

○ In areas where fire fighters have already received more advanced medical training, increasing this to full paramedic training to enable more advanced procedures to be performed, for example fitting cannulas to provide the right type of drug at scene. This would mimic the American model where one paramedic is always available on a fire engine; and

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- Training fire crews to work better with ambulance crews to make the transitions better from the fire service to the ambulance.

> *"In major trauma cases, timely response in crucial, we would like to have an ambulance on every street corner, waiting for the next emergency…that might be unrealistic, but that's the utopian view…its far from where we are at the moment, where we invariably have calls waiting."*
>
> (Emergency service representative)

13.5.3   Further suggestions for improving trauma care are:

- Integration of EMS data with TARN data, (a) to provide insights on post-crash-care outcome and deaths occurring pre-hospital, and (b) to enable TARN to view the effectiveness of the whole system and identify, for example, which ambulance services have better outcomes with which trauma centres (although it would not account for factors external to the care system e.g. road quality, landscape differences). Lack of funding and resources in the emergency services are perceived as a barrier to this; and
- Automatic provision of data from roadside interventions completed by the Ambulance Service (e.g. oxygen level monitors), to TARN, rather than this be completed manually.

13.6   Academic Institutions

Stakeholder Interview Findings

13.6.1   The importance of post-crash care in reducing the number of people killed and seriously injured on the roads was acknowledged by the academic stakeholders, but this was not their area of expertise and therefore more detailed discussion on this topic did not take place.

13.6.2   The development of eCall systems were positively perceived by one academic stakeholder who considered they will have the potential to provide fast communication with emergency services, easier reporting to insurance companies, and alerts to those responsible for road maintenance, where applicable.

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14. INTERVENTION: SAFE AND HEALTHY MODES

14.1 Central Government Departments/Agencies

Stakeholder Interview Findings

14.1.1 Safe and healthy modes were not discussed in detail with central government departments and agencies, instead the focus was on active travel (walking and cycling).

14.1.2 DfT representatives recognise the role of the Active Accessible Travel Division and the Cycling and Walking Strategy in promoting safe and healthy modes and modal share, however, there is an acknowledgement of the strategies' diminutive focus on road safety, despite cycling safety being on the mayoral agenda at city levels.

14.1.3 DfT reported that goals and targets have been set to increase cycling and walking and a target has been set to reduce the rate of cyclists' deaths and serious injuries but not for pedestrian safety.

14.1.4 This lack of road safety focus for safe and healthy modes is attributed to the difficulty that arises in attempting to promote both road safety and sustainable travel, particularly when it comes to the promotion of cycling.

14.1.5 Only one devolved administration has a recognised policy relating to safe and healthy modes of transport. There was no further discussion relating this policy to road safety.

14.2 Local Government

Stakeholder Interview Findings

14.2.1 There was little discussion with local government around safe and healthy modes, but more urban local authorities reported the promotion of active travel and public transport within their authority.

Road Safety Officer Survey Findings

14.2.2 Twenty six RSOs responded to the questions on safe and healthy modes in the online survey.

14.2.3 RSOs were asked whether they have an active travel policy to encourage walking and cycling:

   ⭕ 22 reported they totally or mostly have such a policy; and
   ⭕ 4 suggested they partially have such a policy.

14.2.4 Of the 4 RSOs who reported partially having an active travel policy to encourage walking and cycling:

   ⭕ 3 indicated such a policy was planned or likely in the future; and
   ⭕ 1 did not know.

14.2.5 Asked if new measures had also been introduced simultaneously (to an active travel policy) to address the safety of walking and cycling:

   ⭕ 18 of RSOs reported new measures have been totally or mostly introduced;

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- ○ 6 suggested that such measures have been partially introduced;
- ○ 1 said they have not been introduced at all; and
- ○ 1 did not know.

14.2.6 Of the 7 RSOs who suggested that new measures were partially or not at all introduced simultaneously with an active travel policy:

- ○ 3 indicated that the simultaneous introduction of such new measures is planned or likely in the future;
- ○ 3 suggested such measures are unlikely or not planned; and
- ○ 1 did not know.

14.2.7 RSOs were asked if they promote the use of public transport in their road safety policy:

- ○ 13 indicated they do this totally or mostly;
- ○ 4 stated that they promoted this partially;
- ○ 8 reported they do not do this at all; and
- ○ 1did not know.

14.2.8 Of 12 RSOs who suggested that the use of public transport was partially or not at all promoted within their local authority's road safety policy:

- ○ 4 reported it would be, or is likely to be promoted in the future;
- ○ 5 suggested that such promotion is unlikely or not planned; and
- ○ 3 did not know.

14.2.9 Asked if they specify safety requirements in the public procurement of public transport services:

- ○ 9 of RSOs indicated they do this totally or mostly;
- ○ 1 indicated they do this partially;
- ○ 2 do not do this at all; and
- ○ 14 did not know.

14.2.10 Of the 3 RSOs who suggested that safety requirements in the public procurement of public transport services were partially or not at all specified:

- ○ 1 reported that such specification is planned or likely in the future;
- ○ 1 suggested that such a specification is not planned or unlikely; and
- ○ 1 did not know.

Local Authority Survey Findings

14.2.11 Twenty two local authority representatives responded to the questions on safe and healthy modes in the online survey.

14.2.12 Local authority representatives were asked whether their local authority has an active travel policy to encourage walking and cycling:

- ○ 18 reported their local authority totally or mostly has such a policy; and
- ○ 4 suggested such a programme is partially being carried out.

14.2.13 Of the 4 local authority representatives who reported only partially having an active travel policy to encourage walking and cycling:

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 2 indicated such a policy is planned or likely in the future; and
 2 did not know.

14.2.14   Asked if new measures had also been introduced simultaneously (to an active travel policy) to address the safety of walking and cycling:

 15 reported new measures have been totally or mostly introduced ;
 6 suggested that such measures have been partially introduced; and
 1 reported that no such measures have been initiated.

14.2.15   Of the 7 local authority representatives who suggested that new measures were partially or not at all introduced simultaneously with an active travel policy:

 5 indicated that such an activity is planned or likely in the future; and
 2 did not know.

14.2.16   With regards to whether local authorities promote the use of public transport in their road safety policy:

 10 reported they totally or mostly promote it;
 6 indicated a partial level of promotion;
 5 indicated such activities are not being carried out at all; and
 1 did not know.

14.2.17   Of the 11 representatives who suggested that the use of public transport was partially or not at all promoted within their local authority's road safety policy:

 4 reported it would be, or is likely to be promoted in the future;
 4 suggested that such promotion is unlikely or would not occur; and
 3 did not know.

14.2.18   Asked if their local authority specifies safety requirements in the public procurement of public transport services:

 10 of representatives reported that they are totally or mostly specified;
 1 indicated safety requirements are partially specified and did not know if they were to be in the future; and
 11 did not know.

14.3   Advisory Groups, Associations and Charities

Stakeholder Interview Findings

14.3.1   There was an awareness and encouragement amongst some advisory groups, associations and charities of interventions aimed at promoting cycling as a safe and healthy mode, in particular Bikeability. One association, with a remit for cyclist safety, is highly active in such promotion, providing in-person training, guided rides, safe facilities and online education programmes to members and organisations, in order to educate individuals on how to ride safely on the road network, including whilst travelling to work.

14.3.2   There was some concern that the delivery of safe cycle education may not always be possible, and may take too long to implement. There was also concern about any new legislation mandating the wearing of helmets, as this may put some people off of cycling.

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14.3.3   Multiple suggestions for improving cycling as a safe and healthy mode were noted. These are:

- Increasing the funding from DfT for Bikeability to ensure wider access to the scheme;
- Implementation of a much broader, holistic approach to road safety, for instance, Safe System;
- Integration of the promotion of safe and healthy modes with public health;
- Recognition and implementation of the direct line of sight approach in HGVs;
- The creation of safe cycling infrastructure to encourage more commuting by bike, for instance, left turn priority, junction priority clarity, separated cycle lanes and advanced green lights; and
- Appropriate speed limits which take into account the vulnerabilities of pedestrian and cyclists.

14.3.4   One advisory group/association/charity strongly discourages cycling as a safe and healthy mode, suggesting that cycling is not:

- An efficient use of infrastructure as it does not solve capacity issues;
- Necessarily healthy, due to air quality; and
- Always suitable, due to landscape and weather conditions.

14.3.5   Suggested changes to laws relating to cyclists are positively perceived by stakeholders, who recognise that cyclists do not always abide by the Highway Code, are not registered or insured and do not have to pass a test.

14.3.6   One stakeholder referred to TfL's Healthy Streets for London approach, highlighting its inclusion of the 'people feel safe' indicator.

14.3.7   Walking is believed to have little priority compared to cycling, and pedestrian training activity is generally considered almost non-existent.

14.4   Business and Industry

Stakeholder Interview Findings

14.4.1   There was little discussion with business and industry around safe and healthy modes.

14.4.2   One business and industry stakeholder recognises that modal shift is only possible after understanding an individual's reasoning for modal choice and their propensity to change, and encourages others to gain such an understanding. Results from their own public attitude and health outcome measures have shown:

- Perceptions of cycling as a poor-man's way of travel, in some cultures; and
- Increased benefits from cycling for women and Asian communities.

14.4.3   The same stakeholder is concerned about the lack of understanding surrounding pedestrian experience, suggesting that only measuring injury as an index of experience is not sufficient and other factors, such as, anxiety, weather conditions, urban design and footwear design, should also be considered.

14.4.4   A different business and industry stakeholder reported working with DfT, at a national and European level, on emissions and clean air standards.

SYSTRA

14.5   Emergency Services

Stakeholder Interview Findings

14.5.1   There was little discussion with emergency services around safe and healthy modes. However, police forces are aware of local authority sustainable transport policies and local cycle forums.

14.5.2   Emergency services data, collated in hospitals when trauma care is identified as necessary, is believed to include information on the type of vehicle an injured person was using, including public transport.

14.6   Academic Institutions

Stakeholder Interview Findings

14.6.1   There was no specific discussion with academic institutions around safe and healthy modes, however VRUs were mentioned in the monitoring and evaluation (see 7.6) and safe vehicles chapters (see 11.6).

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15. INTERVENTION: SAFE WORK TRAVEL

15.1 Central Government Departments/Agencies

Stakeholder Interview Findings

Responsibility for Safe Work Travel

15.1.1 Department for Transport (DfT) representatives recognised the role of the DfT and the Health and Safety Executive (HSE) in promoting safe work travel. Views on how they carry out this role were mixed and some felt that there has been a lack of sufficient attention given to this intervention.

15.1.2 HSE's role in safe work travel is detailed in OM2009/02 ('HSE's role in the investigation of work-related road accidents'), which clarifies HSE's policy on enforcement of health and safety legislation in relation to work-related road traffic accidents, and INDG382 ('Driving At Work'), which outlines how companies can manage their own work-related road safety. There was some recognition that the latter may need to be presented in an alternative medium in order to be effective. Some viewed HSE as having a reactive role to safe work travel, investigating incidents only when they are informed of a major failing.

15.1.3 Driver Vehicle Standards Agency (DVSA) were thought not to cover safe work travel, however, their strategy for 2017-2022 does include vehicle and driver safety and overall, safe travel for all, with the inclusion of license checks.

Safe Work Travel Legislation/Standards

15.1.4 One DfT representative referred to the Working Time Directive (WTD) for mobile workers and Drivers' Hours Regulations as key enforcement policies for safe work travel and believed to be the responsibility of the DVSA. The WTD covers all working time, including driving, and the Drivers' Hours Regulations cover driving only. Both policies set out the requirements for breaks and limits on daily, nightly, weekly and fortnightly hours worked and hours rested. There was some concern about the heavy reliance on note keeping for manual enforcement by van drivers, compared to automated tachograph and digital enforcement in HGVs.

15.1.5 Some raised concerns about the lack of clarity in safe work travel regulations, which means responsibility for safe work travel is often unclear. For instance:

  O There may be differences between employer policy and regulations in law, such as an employer stating that tyres on a work vehicle should not go below a 3mm depth and the law stating that the minimum is 1.6mm; and
  O HSE is perceived to be increasingly 'encouraging' the industry to conform to certain standards rather than say they 'must' conform.

Safe Work Travel in the Future

15.1.6 Central government departments/agencies anticipated greater engagement with safe work travel in the future, for instance, through:

  O The promotion of Euro NCAP during procurement processes;
  O Revisions in Safe Work Travel regulations to acknowledge new driving technology, e.g. autonomous vehicles and in-car technology;

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- A new strategy for logistics in transport, signed off by HSE and other agencies with a focus on work related road risk; and
- A more proactive HSE role.

15.2 Local Government

Stakeholder Interview Findings

15.2.1 There was little discussion with local government around safe work travel. One local authority engaged referred to a Safe Travel Policy, however, it was currently under review in order to improve implementation. Additionally, the same local authority reported working with local businesses and launching the Driving for Better Business Campaign, however, reductions in funding, namely the removal of the Road Safety Grant, created a significant barrier.

Road Safety Officer Survey Findings

15.2.2 Twenty six RSOs responded to the questions on safe work travel in the online survey.

15.2.3 RSOs were asked if they have an in-house safe travel policy:

- 14 indicated they totally or mostly have such a policy;
- 5 reported that a policy was partially in place;
- 4 do not have a policy at all; and
- 2 did not know.

15.2.4 Of the 9 representatives who reported partially or not at all having an in-house safe travel policy within their local authority:

- 2 stated that it is planned or is likely for the future;
- 3 indicated that it is not planned or is unlikely for the future; and
- 4 did not know.

15.2.5 In response to being asked if they require Euro NCAP 5 * for all government service cars and taxis:

- 1 of RSOs indicated they totally or mostly require such standards;
- 1 reported requiring these standards partially;
- 3 stated they do not have this requirement at all; and
- 21 did not know.

15.2.6 All 4 representatives who reported partially or not at all requiring Euro NCAP 5* for all government service cars and taxis did not know if this was planned for the future or not.

15.2.7 When asked if they engage with local companies on work-related road safety:

- 11 of RSOs reported they are totally or mostly engaged;
- 7 suggested they are partially engaged;
- 6 stated they are not engaged at all; and
- 2 did not know.

15.2.8 Of the 13 RSOs who reported partially or not at all engaging with local companies on work-related road safety:

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- ○ 5 indicated that it is planned or is likely for the future;
- ○ 3 stated that it is not planned or is unlikely for the future; and
- ○ 5 did not know.

15.2.9   Finally, RSOs were asked if their local authority, or any organisation they work with, has adopted ISO 39001 on road traffic safety management systems:

- ○ 5 stated this was totally or mostly the case;
- ○ 1 reported partial adoption of these standards;
- ○ 6 indicated these standards have not been adopted at all; and
- ○ 14 did not know.

15.2.10   Of the 7 RSOs who reported that their local authority, or any organisation they work with, had partially or not at all adopted ISO 39001:

- ○ 2 indicated that it is planned or is likely for the future;
- ○ 3 stated that it is not planned or is unlikely for the future; and
- ○ 2 did not know.

Local Authority Survey Findings

15.2.11   Twenty two local authority representatives responded to the questions on safe work travel in the online survey. LA representatives who took part in the online survey were asked if they have an in-house safe travel policy:

- ○ 13 indicated they totally or mostly have such a policy;
- ○ 4 reported that a policy was partially in place;
- ○ 1 do not have a policy at all; and
- ○ 4 did not know.

15.2.12   Of the 5 representatives who reported partially or not at all having an in-house safe travel policy within their local authority:

- ○ 1 stated that it is planned or is likely for the future;
- ○ 1 indicated that it is not planned or is unlikely for the future;
- ○ 2 did not know; and
- ○ 1 did not respond.

15.2.13   In response to being asked if their local authority require Euro NCAP 5 * for all government service cars and taxis:

- ○ 3 stated they do not have this requirement at all; and
- ○ 19 did not know.

15.2.14   Of the 3 representatives who reported not at all requiring Euro NCAP 5* for all government service cars and taxis:

- ○ 2 indicated that it is not planned or is unlikely for the future; and
- ○ 1 did not know.

15.2.15   When asked if their local authority engages with local companies on work-related road safety:

- ○ 11 representatives reported they are totally or mostly engaged;

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- **O** 8 suggested they are partially engaged;
- **O** 1 stated they are not engaged at all; and
- **O** 2 did not know.

15.2.16 Of the 9 local authority representatives who reported partially or not at all engaging with local companies on work-related road safety:

- **O** 6 indicated that it is planned or is likely for the future;
- **O** 1 stated that it is not planned or is unlikely for the future; and
- **O** 2 did not know.

15.2.17 Local authority representatives were then asked if their local authority, or any organisation they work with, has adopted ISO 39001 on road traffic safety management systems:

- **O** 1 stated these standards have been totally or mostly adopted;
- **O** 2 indicated this has not at all been adopted; and
- **O** 19 did not know.

15.2.18 The two local authority representatives who reported not at all adopting ISO 39001 on road traffic safety management systems both indicated that this is not planned or is unlikely for the future.

15.3 Advisory Groups, Associations and Charities

Stakeholder Interview Findings

Responsibility for Safe Work Travel

15.3.1 Advisory groups, associations and charities acknowledged the importance of safe work travel in reducing the number of people killed and seriously injured on the roads.

15.3.2 Some suggested that safe work travel is not being properly addressed by central government departments and agencies.

15.3.3 Stakeholders requested better direction from HSE and DVSA on:

- **O** Important measures, such as driver hours, vehicle checks and user standards, including the provision of a system for regulation, e.g. ensuring fatigue management; and
- **O** Corporate responsibility for accidents which occur whilst driving for business, as HSE do not currently investigate these as work related accidents and this makes employer intervention voluntary, meaning employers are not held to account.

15.3.4 Stakeholders acknowledged that the Health and Safety at Work Act (1974), enforced by HSE, and the Crown Prosecution Service, both omit safe work travel, therefore refuting responsibility for the intervention.

Safe Work Travel Legislation/Standards

15.3.5 ISO 39001 was thought to only be adopted by a handful of larger organisations. One stakeholder was engaged in ISO 39001 promotion and training and noted the small uptake may be because the standard is not part of the supply chain, drivers are not educated on it and it offers no financial gain. Other stakeholders suggested that ISO 39001 is too

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complicated and unworkable, and thought awareness and promotion of the standard was lacking.

15.3.6   One stakeholder was engaged in the development of an additional standard, addressing commuter safety and hoped that this standard would be made compulsory.

Advisory Groups, Associations and Charities Safe Work Travel Promotion

15.3.7   Multiple advisory groups, associations and charities either have their own safe travel policies (encouraging safe driving or commuting by public transport), or are active in the provision of research, training and guidance on safe work travel for their employees or clients. For example, one association, with a remit for cyclist safety, offers guided rides to businesses whose employees commute to work by bike, in order to teach individuals a safe route for travel.

15.3.8   An increased focus on safe work travel was believed to result in:

- Attempts to address other road safety interventions, such as safe speed, as most people who drive for work are more likely to speed; and
- Better fleet and HGV performance.

15.4   Business and Industry

Stakeholder Interview Findings

Responsibility for Safe Work Travel

15.4.1   At a national level, business and industry stakeholders requested a stronger lead from central government on safe work travel, suggesting work related road risk could be reduced through the introduction of:

- Policy and national requirements by DfT;
- Targets and goals;
- Better data;
- Better guidance from HSE;
- HSE taking responsibility for investigating accidents which occur whilst travelling to and for work; and
- Involvement of the DVSA.

15.4.2   At a lower level, there was recognition that fleet companies would only be seen as responsible for safe work travel if an accident had occurred during a business mile.

Safe Work Travel Legislation/Standards

15.4.3   There were differing levels of engagement with safe work travel standards, for instance, some business and industry stakeholders had actively been engaged in the development of driver standards and others were not aware of specific standards, namely ISO 39001. Additionally, others were aware of safe work travel standards but were not aware of a large industry interest and uptake. With specific reference to ISO 39001, this lack of uptake was thought to be due to a lack of national awareness and promotion of the standard.

15.4.4   Safe work travel legislation was seen as insufficient. Two main examples were given:

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- Ambiguous legislation relating to corporate responsibility for road safety. More specifically, one stakeholder suggested that there are fundamental differences in corporate responsibility for travel to and for work, with employers and HSE not responsible for enforcement or investigation of road accidents which occur on the way to work and responsible for accidents which occur during work. There was some suggestion that the UK should follow European best practice and introduce employer corporate responsibility for travel to work, incentivising this through mitigation and prosecution. Stakeholders responsible for corporate fleets welcomed clearer guidelines in fleet policy to address this ambiguity;

> *"There is a level of ambiguity, from a corporate fleet perspective, around what the requirements really mean and what they should do…there should be some guidelines around fleet policy"*
>
> (Business and industry representative)

- Unclear legislation on safe work travel for fleets. More precisely, the following would be welcomed:

  - The mandatory introduction of driving license checks in the corporate market, with provision being free of charge by the DVLA to encourage compliance; and
  - Introduction of employers' responsibility for ensuring vehicles are serviced, insured, have an MOT and have regular tyre and fluid level checks.

Business and Industry Safe Work Travel Promotion

15.4.5   Multiple business and industry representatives were engaged in training to directly promote safe work travel to other businesses, including fleets. These training programmes were delivered both face to face and online, with one stakeholder suggesting they cover corporate obligations and safe driving behaviours, such as ensuring drivers do not drive whilst tired. One stakeholder was involved in the delivery of fleet best-practice masterclasses, presented by high-profile industry names, with some recently focusing on duty of care for safe work travel and operational road risk.

15.4.6   Safe work travel was also seen to be promoted indirectly through the incentive of cheaper commercial insurance for fewer road accident claims.

Monitoring Safe Work Travel

15.4.7   Telematics was believed to be a very common way of managing safe work travel, namely work related road risk and driver performance. Some recognised that telematics technology was often a mandatory requirement in commercial insurance policies. Despite this requirement in some insurance policies, there was some concern that not enough is being done to monitor what vehicles are being used for and where they are travelling to. They thought this would make the development of safe work travel fleet policies difficult.

15.4.8   Additionally, monitoring was also believed to be completed for:

- Drivers awareness of external pressures and the influence of these on driver safety; and

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○ Work related road accidents. However, there was some concern that inconsistencies were evident in the reporting of work related road accidents, with one stakeholder suggesting that injuries sustained during work related road accidents should be included as part of HSE's RIDDOR reports, listed under types of reportable injuries (regulation 4) and dangerous occurrences (schedule 2).

Fleet Company Survey Findings

15.4.9   Of the 17 fleet managers who responded to questions on safe work travel in the online survey:

○ All 17 stated that their organisation provides information on safe road use to drivers - 11 stated that the information is comprehensive, 6 stated that it is limited;

○ 15 indicated that their organisation carries out in-service training to address road safety needs, 10 of whom said this is regular and 5 of whom said it is ad hoc. Two stated that their companies do not provide any such training;

○ 6 indicated that their major clients set specific requirements when procuring transport services from their organisation, 9 stated they did not, and 2 said the question was not applicable to them;

○ All but one indicated that they have an in-house safe travel policy;

○ 9 require Euro NCAP 5* for all cars purchased or used by the company, 7 do not and 1 said the question was not applicable to them; and

○ 11 suggested that standards and rules set for licensing and disqualification partially address road safety needs, 5 stated they fully address road safety needs and 1 indicated that they do not meet road safety needs at all.

Road Haulage Company Survey Findings

15.4.10   Of the 4 road haulage companies who responded to questions on safe work travel in the online survey:

○ 2 suggested that their organisation provides comprehensive information regarding safe road use and 2 acknowledged that although they provided information on this topic, it was limited in scope;

○ 2 stated that their organisation carries out regular in-service training to address road safety needs, 1 indicated that their company provides ad-hoc training, and 1 said their company does not provide any form of training;

○ 2 said major clients set specific safety requirements when procuring transport services from their organisations and 2 said they did not;

○ 2 have an in-house safe travel policy and 2 do not;

○ 2 do not require Euro NCAP 5 * for all cars and taxis they purchase and 2 did not know;

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- 1 said their organisation is a member of the Construction Logistics and Community Safety (CLOCS) scheme, 3 said it was not; and

- All 4 indicated that their organisation has policies / procedures that fully monitor licensing and disqualification.

15.5 Emergency Services

Stakeholder Interview Findings

Emergency Services Safe Work Travel Promotion

15.5.1 Multiple emergency service representatives, primarily from the police and fire and rescue services, were engaged in training programmes to directly promote safe work travel to businesses and individuals. These were aimed at those who uses a vehicle to commute to work, or use a vehicle as part of work (fleet and grey fleet, HGV and taxi). One emergency services representative reported multiple methods for identifying training programme attendees. These were:

- Through drivers awareness courses, for instance, if an individual suggests they feel pressure when driving for work; and
- Through high accident reporting within companies.

15.5.2 These training programmes sometimes coincided with national campaigns, and address some or all of the following:

- Effective time management;
- Driving whilst tired;
- Drink and drug driving;
- Mobile phone use;
- Seat-belt use;
- The provision of breaks;
- Awareness of vulnerable road users through cycling tasks; and
- An ADI assessment for drivers who are particularly at risk.

15.5.3 Additionally, one police force suggested that they would contact the company of anyone stopped for poor driving whilst driving for work, in order to make the company aware of the incident and promote safe work travel.

Monitoring Safe Work Travel

15.5.4 Where a road collision was identified as needing trauma care, emergency service representatives indicated that data was recorded on the type of vehicle involved. This can highlight those driving for work, for instance, if they were driving a forklift, however, journey purpose is not directly recorded, meaning work travel can only be inferred.

Safe Road Use Within Emergency Services

15.5.5 Emergency service representatives stated that their own drivers are trained on safe road use during emergency and normal driving conditions by advanced driver training leads.

15.5.6 The tensions between emergency response time and speed, and the resulting threats to other road users and their own drivers, were noted. Representatives highlighted that no emergency response driver should risk their own safety during emergency responding.

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15.5.7   Legislation on exceptions to speed limits for emergency responders was seen as unclear in terms of safe road use emergency response training. Greater clarity is sought on who can train on exceeding speed limits, whether speed limits can be exceeded for emergency response training purposes and how standards can be measured.

Police Force Survey Findings

15.5.8   Ten police Force representatives responded to questions on safe work travel in the online questionnaire.

15.5.9   When asked if their police force has an in-house safe travel policy, of the 10 representatives that answered the question:

- 3 indicated that their force has at least some form of in-house safe travel policy (1 being partial);
- 3 have no form of safe travel policy; and
- 4 did not know.

15.5.10   Of those who had no policy or a partial policy, two suggested that this was something planned for the future, one indicated it was not planned, and one did not know.

15.5.11   Only one of the ten police forces indicated that their force required Euro NCAP 5* for all police service cars. The remainder did not know.

15.5.12   Two of the ten police forces totally or mostly engage with local companies on work-related safety, five do partially, one does not and one did not know. Half of those who partially engage or do not engage indicated that their force plans to work with local companies on safety more in the future – the remainder did not know.

15.5.13   Not one police force representative knew if their police force, or any organisation they work with, adopted ISO 39001 on road traffic safety management systems.

15.6   Academic Institutions

Stakeholder Interview Findings

Priority given to Safe Work Travel

15.6.1   Academic institutions expressed concern that safe work travel is not given priority, suggesting more focus on evidence based research is needed. More specifically, evidence on managing exposure to risk, speed, distraction and fatigue issues are believed to have value, with one academic stakeholder making reference to PACTS' report with UCL and TRL, titled 'The changing nature of driving for work and questions for safety policy and practice'.

15.6.2   There was some concern that increasing the priority given to safe work travel will also create an increase in cost, however, this cost is believed to be outweighed by evident benefits.

15.6.3   There was specific concern that safe work travel is not a priority in fleet companies, with larger fleets only having safe work travel policies for audit purposes and SMEs overlooking the topic, despite having large problems with road traffic accidents.

Safe Work Travel Legislation/Standards

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15.6.4   The importance of ISO 39001 was recognised by academic institutions, and some noted the lack of promotion, awareness and adoption of the standard.

15.6.5   Suggestions from stakeholders included:

- Making compliance with ISO 39001mandatory; and
- HSE should recognise safe work travel under The Corporate Manslaughter Act (2007).

Monitoring Safe Work Travel

15.6.6   One academic institution has developed a safe work travel monitoring tool to assess driver risk, through psychometric assessment, and provide behavioural interventions to improve driver behaviour, such as hazard perception training and e-learning programmes. The tool has been used globally by multiple organisations.

15.6.7   It was indicated that there is a need for better data relating to safe work travel.

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16. SUMMARY OF RECOMMENDATIONS WORKSHOP

16.1 Introduction

- **Date:** 6th February 2018

- **Moderators:** Carry Stephenson, Eve Robertson, Kate McMahon, Jeanne Breen, Pete Thomas

- **Workshop objectives**:
  - To discuss select recommendations from the review and their deliverability;
  - To ensure the select recommendations are realistic and practicable and appropriately represent the consensus and key themes from our research;
  - To give a strong sense of collaboration between the stakeholders, as it represents the start of improved joint working going forward, the early 'establishment phase'; and
  - To inform the final report.

- **Breakout group objectives**:
  - To discuss how the recommendations would impact participants' organisations;
  - To discuss how the recommendations might be delivered by respective organisations;
  - To identify any drawbacks in the recommendations; and
  - To build on ideas.

- **Morning group composition:** A morning session with five breakout groups consisted of representatives from local government; emergency services; academic institutions; business and industry; and advisory groups, associations and charities.

- **Afternoon group composition:** An afternoon session with two breakout groups consisted of representatives from government and agency officials.

- **This workshop summary provides**:
  - A full report on stakeholders' views on each recommendation selected for discussion (Sections 16.2-16.7); and
  - A summary of the stakeholder's views and resultant modifications to the draft report (Section 16.8).
  - As with the reporting of stakeholder views in other chapters, the views and opinions reported are those expressed by workshop attendees and are not necessarily factually correct. All views and an indication as to whether specific views are widespread is provided where possible.

16.2 A Safe System Performance Framework as the Core of National Strategy

What are your initial thoughts on a Safe System performance framework as the core of national strategy?

16.2.1 Across all workshop groups, most attendees welcomed a Safe System performance framework as the core of national strategy. In particular, local authority representatives felt that principles were logical, whilst representatives from associations and charities suggested Safe System provides a framework for accountability.

16.2.2   However, many groups highlighted the need for a greater understanding of what Safe System is, and what it does. There were concerns that this lack of consensus over how Safe System is defined by different groups would prevent the road safety community from communicating the aims and importance of a Safe System clearly and accurately to other stakeholders. Some representatives from associations and charities also commented that 'National' needs to be more clearly defined, as they were unclear whether this referred to the UK, or just England.

> *"I don't think there is a consensus necessarily, because people tend to add things and take things away don't they. I've seen quite a few different models."*
>
> (Central government department/agency representative)
>
> *"There are some who have engaged with the [Safe System] model, and have chosen to interpret it in certain ways that may not be the way that's done in the OECD and that sort of thing… There is an issue there, and I think that needs to be discussed."*
>
> (Central government department/agency representative)
>
> *"One of things that would need to be addressed in all of this is making sure there is a common and shared understanding of exactly of what Safe System actually means, because there are multiple interpretations of it operationally."*
>
> (Advisory Groups, Associations and Charities representative)

16.2.3   Many groups cited a lack of support for road safety from central government as another potential barrier. This was believed to have filtered its way down to local authorities, who tend not to have road safety as a priority item on their agendas. Further still, some representatives from associations and charities, as well as some government officials, suggested that road safety is not a priority for the general public. They argued that there is currently a culture of acceptance around the dangers of the road network, and as such, obtaining buy-in from the public may prove difficult.

> *"There's no customer demand, there's no public demand for increased safety, because there's no vision that it's unsafe at the moment… There's no general view that we have an unsafe system."*
>
> (Advisory Groups, Associations and Charities representative)

16.2.4   Some attendees questioned how some of the Safe System objectives could be applied in practice. Some local authorities suggested Safe System is harder to apply to older rural roads, and could lead to a loss of tourism in their area. Additionally, some representatives from business and industry advised that introducing some measures (e.g. average speed checks throughout the network) would not be practical or politically acceptable.

16.2.5   There were also concerns amongst some attendees that it is often a struggle to obtain agreement on implementing Safe System measures between stakeholders. For instance, one attendee suggested that road safety auditors can be undermined by road designers, whose priorities lie with financial considerations as opposed to safety. Some attendees from associations and charities were also concerned that Safe System could conflict with goals set by public health.

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16.2.6   To overcome these barriers, attendees proposed a number of strategies to assist in the implementation of this recommendation. Firstly, many attendees called for 'National Leadership' from the DfT, to bring cross-country consistency to Safe System through a national framework. They believed that this would then filter down to local authorities, who would have to give more prioritisation.

> *"That was the case in Sweden with Vision Zero, it was top down, it didn't come from the bottom-up."*
>
> (Advisory Groups, Associations and Charities representative)

16.2.7   To get road safety up the agenda of both government and local authorities, and to obtain buy-in from both ministers and the public, many attendees suggested integrating Safe System with other objectives that are considered to be of national importance. Many attendees suggested linking Safe System to public health objectives, whilst government officials in particular called for a sustainable approach to safety.

> *"Road safety isn't working on its own in a vacuum. It has to co-ordinate with these other fields."*
>
> (Advisory Groups, Associations and Charities representative)
>
> *"That link in with the sustainable goals as well, can also help that paradigm shift in the safety culture, but bringing in in the sustainable element, aspect to it as well, I think is really valuable."*
>
> (Advisory Groups, Associations and Charities representative)
>
> *"I think potentially the way to make it [Safe System] sell maybe relates to what [x] said, that sustainable safety. The Government is committed to getting more people cycling, the key barrier to cycling is the perception that it's really dangerous."*
>
> (Central Government Department/Agency representative)

16.2.8   Many attendees also suggested that to obtain consensus on how Safe System is defined and understood, all road designers need to be educated on its principles. One attendee from a charity also argued that road users themselves should be educated. In addition, many attendees from local authorities highlighted that funding is required to ensure that new, safe roads can be developed, and so the existing network can be maintained.

Do you agree or disagree with the principle that DfT should be setting objectives/ targets?

16.2.9   Many attendees agreed with the principle of DfT setting targets, regardless of their simplicity. Additionally, irrespective of whether attendees felt that zero KSI's was achievable or not, they agreed that this was a good aspirational aim. Some attendees felt that targets focus the minds of those working in road safety, serve as a statement of intent, and help education. Several representatives from advisory groups, associations and charities stated that targets help organisations to work collaboratively, and provide an indication of whether work has been successful.

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> *"One of the ways you achieve that education is, actually, setting the targets… Setting targets makes it politically important, because it's something you get seen to have either done or not done."*
>
> (Advisory Groups, Associations and Charities representative)
>
> *"I think they're essential part of the process of getting organisations to work together. This is what fell apart when targets were not introduced. If you don't have clear targets, it's very difficult for organisations to know what it is they're trying to achieve."*
>
> (Advisory Groups, Associations and Charities representative)

16.2.10   However, most attendees pointed to a key barrier, the reluctance of some ministers and government departments to set targets. They believed that they would be concerned by the ramifications of these targets not being achieved. In addition, there were concerns that there would be a lack of appetite for this objective. As such, to make targets more palatable to government, and to gain public buy-in, many attendees suggested linking Safe System objectives with areas where there is high public demand for change, such as sustainable objectives relating to walking/cycling initiatives.

16.2.11   Local authority representatives suggested that targets for vulnerable road users need to set and be tailored by each local authority individually, to ensure they are relevant to their road environments. They also stated that funding would be required, to meet targets and that a drink-drive limit of zero should be set to ensure targets can be met.

16.2.12   Some attendees were unclear as to whether targets would apply to each part of Safe System, or whether the only target would be the outcome of a reduction in KSI's. Most attendees wanted each aspect of Safe System to be measured. Likewise, many attendees emphasised that there needs to be a clear reason as to why targets are set, as well as a clear strategy for how they will be achieved.

16.2.13   One government official argued that different indicators of performance should be used, such as rates of compliance with speed limits, or the number of tyre checks undertaken by police forces.

> *"I actually think that when you just count the number of dead, or killed or seriously injured, you're counting your mistakes. You need to start thinking about other indicators of performance."*
>
> (Central government department/agency representative)

What language should be used to present any objectives/targets?

16.2.14   Most attendees' preferred terminology was the word 'target', on the basis that this language was simple, and easy to understand. Conversely, 'quantitative objectives' was a particularly unpopular term. One representative from an advisory group/association/ charity suggested that regardless of the language adopted, there had to be political buy-in.

> *"Don't call them wishy-washy words like indicators, or other terms. Be clear about the fact that they are targets."*

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16.2.15   However, many government officials warned against the use of the word 'target', as they felt this would decrease acceptability of the principle. Instead, they suggested that 'objectives' would be a better word to use. Likewise, another official stated that great care and consideration should be given in assigning any numeric value to 'objectives', warning that good evidence may not be considered by ministers if set figures are included.

> *"The door will close, bang, once anybody   says the word 'targets'… There's a hunger out there for these 'objectives', but they're 'objectives'. They will be measurable, but I can't work with 'targets'."*
>
> *"I think if we set numbers we'll end up having the baby thrown out with the bathwater. I think there's' a lot of good stuff in here, that won't get over the threshold anywhere, if there is a number set in there."*
>
> (Central government department/agency representatives)

16.3   Embedding Safe System Nationally

Set up a task force of governmental and independent experts to encourage the embedding of Safe System

16.3.1   Most attendees supported this recommendation in principle. They felt that having a group of experts who are able to transfer/disseminate their knowledge to others would be useful, and that the task force could strengthen opportunities for collaborative working between organisations. However, there were some potential barriers identified by some attendees. Some representatives from business and industry were unsure as to how the task force would work in practice, and were concerned that it may not be able to deliver anything actionable. Likewise, some representatives from advisory groups, associations and charities thought that involving other governmental departments may prove difficult.

16.3.2   With regards to implementation and delivery, the following suggestions were made:

○   The role, remit and responsibilities of the task force need to be more clearly defined, and thought needs to be given as to how this task-force will collaborate with other groups. It was suggested that the RSMCR recommendation incorporates a hierarchy of all the different groups to be involved. Attendees did not want the task force to resemble a quango.

> *"I think the task probably needs slightly more clearly defining, that they are encouraging the embedding of Safe System."*
>
> (Advisory Groups, Associations and Charities representative)
>
> *"If it's some form of a useful body that's actually going to provide that centralised lead, or do the education we talked about earlier… then that's useful. But punting it off to an arms-length quango is a bad plan."*
>
> (Advisory Groups, Associations and Charities representative)

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- Some attendees suggested that there needs to be an element of independent scrutiny / critique of what the task force does, so they are accountable.

- Some attendees felt that in addition to expert disseminators of knowledge, there needs to be expert practitioners, to advise as to whether recommendations are can be implemented feasibly, and to ensure Safe System principles are applied to a high standard.

- Many attendees made suggestions for organisations that should be represented on this task force, and needed to be educated on Safe System principles. These organisations included: Public Health; UK Roads Board; the Home Office, the national health service; Ministry of Justice; and police forces. Cross-governmental working was suggested as working well in the 'Every Child Matters' campaign.

- Local authorities wanted the task force to support them in the delivery of road safety, and to help to deliver a consistent approach cross-country through collaborative working.

> *"That national oversight allows it be linked. [For example] 'Well, your targets are very similar to these over here, and these over here. So, let's get you three together to look at an approach, rather than each of you doing something different'".*
>
> (Local authority representative)

- Some attendees suggested that to instigate meaningful action, top-down leadership was required from ministers, not the DfT.

> *"It's not going to work, as a task force, if it's just set-up by the Department for Transport. The minister needs to say, 'I am setting-up at task force to look at this', and if the minister says 'I am setting-up at task force to look at this', it carries much more weight that if the Department for Transport dribbles into it."*
>
> (Academic Institution representative)

Promote Safe System Towards Zero as the new transport safety culture in Britain to professionals and devise community promotion and engagement strategies

16.3.3 Whilst many attendees agreed that 'Towards Zero' was certainly a good aspirational aim, there were some doubts as to whether this was a realistic aim, which could make it difficult to obtain buy-in from the public.

16.3.4 Some representatives from emergency services suggested that local authorities are not currently equipped with the skills to deliver this aim, whilst attendees across multiple groups felt the term 'Towards Zero' was ambiguous. Some attendees were unsure if this meant zero deaths, or zero injuries. Further still, one representative from an advisory group/association felt that 'Towards' meant there would not be a strong enough commitment to achieving zero, and as a result, this recommendation would not mobilise fully committed action.

16.3.5 Additionally, some charity representatives felt there was an ethical question to be considered. They questioned whether it was ethically right to be promoting walking and

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cycling when the System is not yet safe, as this could lead to increased deaths for these modes in the short term. On another note, one government official suggested this 'culture change' project would be expensive to implement.

16.3.6   Furthermore, some attendees suggested that zero will never be achieved, as there will always be members of the public who choose not to comply with Safe System. Likewise, one government official argued that 'Safe System Towards Zero' was trying to tie two mutually exclusive concepts together that did not necessarily fit.

> *"We have 30% who opt-out of the system. They choose, for one reason or another, to opt-out. For example, they break the law, they deliberately break the law. They can't be enshrined in a Safe System, they're outside the system."*
>
> (Advisory Groups, Associations and Charities representative)
>
> *"People don't just make mistakes, they make deliberate mistakes. There are slips, lapses, violations, there are all sorts of things. Sometimes a Safe System can account, not accept, but can accommodate those, and sometimes they can't."*
>
> (Central Government Department/Agency representative)

16.3.7   In order to implement this recommendation, attendees made the following suggestions:

⭕   Most emphasised the need for there to be a clear definition/understanding of what Safe System means. One representative from the emergency services stated that this could be achieved by providing high-quality training at road safety academies, similar to public health.

> *"[Public Health] have a whole kind of competency, you know, grades so they can work up different levels. They know how to do evidence-based approaches and be really systematic in what they do."*
>
> (Emergency service representative)

⭕   Local authority representatives re-iterated the need to set drink-drive limits to zero, set targets specific to each authority, and to use the government task force to promote opportunities for collaborative working.
⭕   One government official suggested the Cabinet Office should take ownership of this recommendation, not DfT.
⭕   Some government officials agreed that this recommendation could be enforced through a 'Gold – Silver – Bronze' command structure, similar to that used by Police forces. It was proposed that this hierarchy could consist of a:

- **Strategic Vision Group** (Gold Level) – The task force state that they will promote Safe System Towards Zero, and outline how this will look;
- **Operational Leadership group** (Silver Level) – The inter-departmental road safety working group has operational oversight of delivering this aim;
- **Delivery Groups** (Bronze Level) – Extended fledgling regional road safety partnerships can be used to promote Safe System Towards Zero on a day-to-day basis.

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Review the national road classification and speed limit hierarchy in line with Safe System principles

16.3.8   In principle, all groups agreed with this recommendation. Many emphasised the need for the review to be credible (as this will help increase compliance with speed limits), and most agreed that the current system, where speed limits can change frequently on the same road, is dangerous and confusing for drivers.

16.3.9   Some attendees pointed to a number of barriers that currently exist:

- There is a lack of resources at local authority level, both in terms of financial resources and headcount;
- Some representatives from business and industry suggested that politics often determines the speed limits that are set;
- In addition, this group felt that a discrepancy sometimes exists between what the speed limit should be intuitively, and what Safe System recommends; and
- Government officials stated that it is often unclear as to who owns various sections of the road network, and that this needs to be clarified.

16.3.10   In terms of implementation, many attendees suggested that drivers needed educating, so they understand why speed limits are set.

> *"When you look at any other pieces of legislation, health and safety at work, they bring in Safe System of working. But, the actual bringing in that system is quite a small element of it. The majority of the input is with the training on the operatives."*
>
> (Local authority representative)
>
> *"If one of the key elements of Safe System is Safe Users, they can't be safe if they're not educated and trained."*
>
> (Local authority representative)

16.3.11   Many attendees called for flexibility, and for there not to be a 'blanket' approach to the review. Some representatives from business and industry pointed to research that has suggested that in some instances, higher speeds may actually be safer for drivers (e.g. to overtake HGVs).

16.3.12   Likewise, whilst many groups agreed that cross-authority co-operation is required to achieve greater consistency in speed limits, there are some instances where local authorities know the subtle variations in their roads better, so some flexibility should remain. Consequently, this review should serve more as a guideline than a prescription, and should not detract from local decision making. As such, many government officials called for this recommendation to be re-worded, to explain that limits should account for the design and architecture of different roads.

> *"We have to bear in mind the huge variation we have in our road structure, so it means something. The process that gets you there needs to be a bit more flexible and complicated, otherwise it doesn't achieve anything."*
>
> (Advisory groups / Associations / Charities representative)

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> *"I think it becomes far too complex when you try to set something nationally around speed limits, where actually something at a local level could have greater impact."*
>
> (Central government department/agency representative)

16.3.13   One representative from an advisory group/association/charity suggested a blanket 20mph default should be applied in urban areas.

16.3.14   Additionally, one attendee from an academic institution re-iterated the need for political buy-in.

Set goals, targets, objectives for the new Major Roads Network along the lines adopted for the Strategic Road Network

16.3.15   Most groups agreed with this recommendation in principle. One government official suggested that resourcing was an issue for road safety engineers. They also commented that whilst Highways England are adapting their iRAP tool for local roads, it is not quite ready for use at present.

Identify road sections for priority treatments on the Major Roads Network and local roads using iRAP tools in partnership with local authorities

16.3.16   Most attendees agreed with this recommendation in principle. Local authority representatives particularly like the easy to understand star rating system, and the logical principles of iRAP. However, many attendees argued that iRAP needs fine tuning, as it is not yet suitable for urban roads, whilst local authority representatives argued that engineers often find iRAP recommendations difficult to deliver in practice. Likewise, one representative from an academic institution suggested that DfT, Highways England and sub-regional bodies should be primarily responsible for this, not local authorities, as they do not have sufficient resources to implement this. Many other groups also pointed to the fact that in addition to identification, there would need to be adequate funding to deliver this recommendation.

> *"One of the problems with that is actually keeping to that standard. So, you go for a 5 star, you manage to achieve it, how are you going to maintain it at that level?"*
>
> (Local authority representative)
>
> *"There's a couple of words missing there though, aren't there? After identifying, you need identify, <u>and fund</u>."*
>
> (Advisory groups / Associations / Charities representative)

16.3.17   Local authority representatives highlighted the need to educate road designers so they have a better understanding of Safe System. They also emphasised the need for Local authorities to be involved in the setting of any targets in this area, as they are the ones who will inherit them. Furthermore, they also suggested developing a standardised measure of risk, to reduce discrepancy between different tools.

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Provide new focus for vehicle safety policy and research in DfT beyond the current emphasis on connected and autonomous vehicles

16.3.18   Many non-government representatives agreed with this recommendation. They saw the arrival of fully autonomous vehicles as distant, and as such, there is currently a gap between current safety and planning for the future. Some representatives from advisory groups, associations and charities wanted to see greater focus on behavioural research, specifically on how to incentivise the public to buy vehicles with better safety features.

> *"In terms of the short to mid-term ambitions in relation to incentivising, further vehicle safe technology, I think there is a bit of a vacuum at a governmental level."*
>
> (Advisory groups / Associations / Charities representative)
>
> *"I think we would probably like to see more emphasis put on how, what role, the Government could play in terms of research for incentivising take-up of certain safety features within vehicles."*
>
> (Advisory groups / Associations / Charities representative)

16.3.19   Business and industry representatives believed a more pressing need was to improve the safety of the grey fleet. They suggested that government review their policy towards expenses schemes that incentivise workers to drive business miles in potentially unsafe vehicles. They also wanted to see increased focus on Euro NCAP 5* research to improve safety in current vehicles. Likewise, many groups called for government to only procure Euro NCAP 5* vehicles.

16.3.20   However, government officials were not as convinced by this recommendation. They acknowledged that DfT's research is somewhat determined by international research focus from the EU and UN, and many perceived the arrival of full autonomy to be close enough to justify the current research focus. Yet, one attendee did suggest that DfT should not lose sight of ensuring existing vehicles comply with current safety standards.

Increase compliance with urban and rural speed limits

16.3.21   Most attendees agreed with this recommendation. The only reservations attendees had were in regards to potential barriers, and how effectively this could be implemented.

16.3.22   Some government officials recognised that politically, speed cameras were disliked by the public. There has also been a recent backlash in France when 10kmh were taken off speed limits. Other groups cited a range of current issues, including:

- Lack of police enforcement;
- Lack of funding;
- Lack of clear communication from authorities to the public about why certain speed limits are set;
- Lack of driver experience/knowledge;
- Lack of consistency in the speed limit tolerances/margins used by different police forces;
- Poor calibration of speed monitoring equipment; and
- A 'cultural issue' of disregarding speed limits in the UK/acceptance of speeding.

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16.3.23   Many groups called for the use of technology to increase compliance. Intelligent Speed Assistance (ISA) was seen as a way of ensuring compliance, with representatives from business and industry proposing that this should be sold to fleet operators as a form of 'corporate social responsibility' and a method of reducing insurance costs. Other attendees suggested the mandatory fitting of black boxes in vehicles. Yet, some attendees agreed that technology was not the 'be all, end all', and that other psychological methods of slowing speeds may be effective (e.g. lining roads with trees, the use of white paint).

16.3.24   Some attendees suggested that more organisations need to be involved in enforcement, not just the police (e.g. the Home Office and Ministry of Justice). Many called for national leadership from the DfT. Here, it was suggested that DfT should reinforce that using mobile phones, not wearing a seatbelt, and drink/drug driving are unacceptable. Many felt that DfT should also promote individual ownership of road safety and be more visible as a lead agency.

16.3.25   Education was seen as a key tool in delivery by many attendees. There were calls from many groups to reintroduce campaigns that were considered long overdue (e.g. Speed Kills). Here, business and industry representatives emphasised the need for 'intelligent communication' and campaigns that are thought-provoking – not simply administering commands.

> *"If you push people in a direction, they will push back. If you draw them to it because it has 101 good reasons why, then they're more likely to accept it."*
>
> (Business and industry representative)
>
> *"Something using humour and thought-provoking, I think, is more likely to change behaviour than finger-wagging, because we know that doesn't work."*
>
> (Business and industry representative)

16.3.26   In a bid to tackle the 'cultural issue' of acceptance of speeding, local authorities called for a zero tolerance approach. To tackle the inconsistency in speed limits, other groups suggested that average speed checks over wide areas achieve better compliance, as previous research has indicated that drivers prefer these to fixed position cameras.

Support walking and cycling with safety improvements as well as measures to increase activity

16.3.27   Most attendees agreed with this recommendation in principle, and one suggested it is extended to include equestrians. A potential barrier is that pedestrians and cyclists are still seen as 'other' by many road users, and to overcome this need to be prioritised as modes in their own right, as opposed to 'other' road users.

16.3.28   To implement this recommendation successfully, the following suggestions were made to increase safety for walking and cycling:

- Increase compliance with speed limits for vehicles;
- Provide proper segregation from vehicles; and
- Reduce road traffic volumes.

16.3.29   Some advisory group/associations/charity representatives wanted to see a 'Road Danger Reduction Approach' implemented to ensure that public health aims were included.

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16.4 Co-ordination Needs

Establish an inter-departmental road safety working group of senior government officials to oversee national road safety strategy, goals and targets. (Moderator note: not ministers)

16.4.1 Although many attendees agreed with this recommendation in principle, and welcomed the need for cohesion, some were sceptical as to whether this group would be effective in practice. There were concerns that without political buy-in (i.e. no ministerial lead, and/or senior officials being unwilling to give up their time to attend meetings), this group would not function effectively. Additionally, some representatives from advisory groups, associations and charities did not see how this group was different to the task force.

16.4.2 As such, the following recommendations for implementation were made by attendees:

- Local authorities would like members to be from all areas in road safety, and would like this group to be responsible for funding authorities based on their performance;
- To obtain political buy-in, some attendees suggested classing meetings as highly important (to prevent junior members of staff being sent), and monitoring the group's performance against key road safety objectives;

"You want to find out what would make those meetings something that you could not get out of, that you would move everything else in your diary to attend."

(Emergency service representative)

- To ensure that terms of reference are clear, and to demonstrate how this group would work collaboratively with the task force (as well as other road safety organisations) it was suggested that a diagram of this process was drawn-up;

"If you had it as a diagram, how it would work… How it would work in terms of governance, delivery and buy-in and leadership, a lovely little diagram, would probably be quite good."

(Central government department/agency representative)

- One attendee from an advisory group/association/charity suggested that a Safe System approach could be embedded within every departmental plan; and

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○ One government official spoke of an MP who is considering establishing a similar group, led at ministerial level. They suggested letting this MP lead this process.

Extend the fledgling regional road safety partnerships for the strategic road network to cover the Major Roads Network in cooperation with local authorities

16.4.3 This recommendation was welcomed by many attendees, as they felt that gaps currently exist at regional level, and that this would increase the opportunity for collaborative working between organisations. Yet, a number of barriers were identified, such as:

○ Some attendees were concerned that existing partnerships could hold disproportionate power over new groups;
○ Some were concerned that there may be inconsistencies in how different regional partnerships work; and
○ One Business and Industry representative was concerned that drivers may be confused if/when new regulations are introduced in their area.

16.4.4 In terms of implementation, many attendees suggested that a range of partners should be included, not just local authorities. For instance, police forces could be included. Likewise, many attendees suggested that the partnerships needed a blueprint to follow, so they know how to implement Safe System principles cross-regionally.

16.4.5 Local authority representatives felt that DfT should fund and implement these partnerships. However, a recent consultation report by Highways England was referred to as a potential guide for how these partnerships could be implemented.

16.5 Funding and Resource Allocation Needs

Review the funding available to local authorities, as well as funding mechanisms

16.5.1 Most attendees agreed that funding and resource allocation did need to be reviewed, although there were some barriers identified by various groups. It was acknowledged that road safety is low on the government's agenda, whilst representatives from local authorities stated that local authority leaders often determine how money is spent.

16.5.2 With regards to implementation, attendees recommended the following actions:

○ Review funding for other agencies involved in road safety (e.g. police forces);
○ Align road safety with other 'priority' societal/governmental objectives (e.g. environmental, equalities, public health), and leverage funding from these areas;

"Does it have a future in just being focused on funding for road safety? Or do we have to start thinking, well, where are all these other key priority issues for national politicians, that aren't road safety."

(Academic Institution representative)

○ Government should provide greater guidance on how funding should be spent, and what the funding is intending to achieve;
○ Some government officials suggested reviewing the timeframes when funding is available – although they did not specify what these timeframes should be;
○ In terms of type of funding, ring-fenced funding was 'of interest', but was not seen as a reliable source;

- Many government officials suggested that targeted, non-competitive funding (e.g. the Safer Roads Fund) had been well received by the road-safety community; and
- Some advisory group/association/charity representatives suggested tailoring local authority funding to reflect their level of ambition, and that there needs to be greater selectivity and a more critical approach taken when choosing schemes to be support.

Increase dedicated road safety research budget and programme management capacity to support the implementation of a Safe System approach and demonstration projects across the UK

16.5.3   Most attendees did not feel that research budgets had to be increased necessarily, it was more a case of making better use of existing resources, or in some cases, increasing resources. Some felt that specific road safety budgets would help gain political buy-in.

16.5.4   The barriers identified by attendees to the successful delivery of this recommendation included: persuading local authority leaders to fund research in areas they may not understand; the impartiality of research advisory groups; not enough research being applied in practice; and difficulty obtaining political interest for evidence-based policy.

16.5.5   In terms of implementation, the following suggestions were made by attendees:

- Improve the dissemination of research, so that research is more visible, co-ordinated, and quality can be assured;
- Government officials wanted increased resources within their department, so that budgets can be used more efficiently, and more research can be undertaken;

> *"There's lots of money that never gets spent because we don't actually have the ability [to commission enough research]. And projects take such a long time because we can't manage them fast enough."*
>
> (Central government department/agency representative)

- Prioritisation would ensure best use of available funds, existing resources could be used better, and Safe System could be better implemented;

> *"You've got to look at where the biggest hurdles are towards the Safe System approach being implemented, and target the research on those hurdles first. It's got to be a progressive approach. There's no point researching the end game if there's 25 steps first that are going to need something to overcome them."*
>
> (Local authority representative)

- Advisory group/association/charity representatives stated that independent funding must remain (so other areas can be researched, not just the DfT's interests), and wanted 'development' to be included in this recommendation; and
- Many groups called for research to have practical implications.

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16.6 Monitoring and Evaluation Needs

Review Safe System monitoring and evaluation needs

16.6.1   Most attendees agreed it was important to monitor and evaluate the effectiveness of Safe System, so the community can see progress and learn from successes and mistakes. One advisory group/association/charity representative suggested using the European Commissions' indicators of performance.

16.6.2   Government officials stated that data is currently collected in silos, and that there is a need to bring this together. Some other groups recognised that this will require additional resources.

> *"The monitoring bit is going to be relatively straightforward. The ability to do something about it, to identify the weak spots, identify the strengths, and create a level, a level of output that is excellent across the board, that's going to be the really difficult part, an additional, a significant additional resource."*
>
> (Advisory groups / Associations / Charities representative)

Develop the capacity of the DfT Statistics and Analysis Division to fulfil key national monitoring and evaluation development and to create oversight related to the implementation of Safe System

16.6.3   All groups agreed with this recommendation, with some groups feeling that availability of data promoted accountability.

16.6.4   A number of suggestions were made to improve the delivery of this objective:

- Many attendees felt this was not only the responsibility of DfT, but was applicable to any organisation that collects data;
- Although some attendees wanted to see a senior position created at DfT to run the data warehouse, one government official suggested this should not necessarily mean adding more staff, but streamlining current processes;
- Emergency service representatives suggested collecting data from the 'Brake' depth investigation branch, and monitoring data relating to post-crash response times and post-crash health; and
- Local authority representatives wanted to see more monitoring of education, training and publicity (ETP).

Consider any further incentives needed for police forces for take up of the CRASH reporting system

16.6.5   It was widely acknowledged that there needs to be an improvement in the quality and consistency of CRASH data and in the speed of data availability.

16.6.6   Many attendees stated that road safety/CRASH data is not a priority for police forces, whilst other argued that police forces lacked the required understanding about what the data was being used for. It was also stated that some police forces are using their own systems which they consider superior, for example the Metropolitan Police force.

16.6.7   Various suggestions were made by attendees as to how the police might be encouraged to take up the CRASH reporting system. These included:

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- Keeping CRASH data free;
- DfT to display leadership/take ownership of CRASH data;
- Making CRASH more user friendly (e.g. allowing transfer of data with other systems, or enhancing its mobile capability so it is available at roadsides); and
- Paying police forces more to take CRASH data seriously.

16.7 Research Needs

Establish a national road safety research advisory group to provide independent advice on research programmes and methods in line with identified good practice

16.7.1 Whilst most attendees agreed with this recommendation in principle, many wanted there to be a clear terms of reference for this group. However, some attendees were not comfortable with the idea of this group, or DfT dictating to academics what research should be undertaken (i.e. they did not want to lose 'intuitive research', and rely only on research that is formally commissioned).

16.7.2 Government officials made a variety of suggestions for this recommendation:

- Ensure the group undertake quality assurance audits, check that research is not duplicated, and ensure lots of visibility for research findings;
- Ensure that road safety campaigns are based on evidence;
- Ensure that the advisory group is not just a repository, but translates research evidence into practice; and
- Ensure the group is sensitive to different groups priorities for research.

16.8 Summary of Findings and Modifications to the Draft RSMCR Report

16.8.1 This section provides a summary of stakeholder views on each of the selected recommendations (described in full in previous sections), and the study team's reflections and actions for each recommendation. Actions take the form of modifications made to the draft RSMCR report to reflect majority views, including the:

- Addition of new recommendations;
- Modification of existing recommendations;
- Removal of recommendations; and
- Modifications to other sections of the draft report.

16.8.2 These modifications were made to ensure that stakeholders views were taken into consideration, ensuring recommendations are realistic, practicable and can be delivered.

Summary of Findings

16.8.3 Across all workshop groups, most attendees welcomed the recommendation for **A Safe System performance framework as the core of national strategy**, although there were concerns over the lack of, and differing understanding of the term Safe System, which was seen as a barrier to both dissemination and implementation.

Study team's reflections and actions: This workshop finding is already recognised in the draft report, along with recommendations for DfT and professions to aid an increased understanding of the concept of Safe System.

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16.8.4   Many perceived there to be a current lack of support and priority for road safety and the principals of Safe System at central government level, and considered this filtered down to a culture of acceptance around the dangers of the road network at a local level and amongst the general public.

> **Study team's reflections and actions:** This workshop finding is already reflected in the draft report within a range of recommendations around Safe System and its leadership by the DfT.

16.8.5   Perceived barriers to Safe System measures being implemented included practicalities, political acceptability, financial considerations, and conflicts with goals set by Public Health. National leadership from the DfT, bringing consistency to Safe System through a national framework, was considered very important to overcome many of these barriers. Integrating Safe System with other key national objectives, such as public health and suitability were also perceived as ways of getting Safe System up the agenda in central and local government. Funding and education for road designers were also considered important to overcome barriers.

> **Study team's reflections and actions:** This workshop finding is already reflected in the draft report and recommendations.

16.8.6   The principal of DfT **Setting national targets for KSIs**, alongside a clear strategy for achieving targets, and reasons for target setting, was well supported. Working towards zero KSIs was generally perceived as a good aspirational aim as it focuses minds and serves as a statement of intent from central government.

> **Study team's reflections and actions:** This workshop finding is already reflected in the draft report and recommendations.

16.8.7   A key barrier to targets was perceived to be buy-in from ministers and government departments. Linking targets with areas where there is high public demand for change, such as sustainable objectives relating to walking/cycling initiatives, was suggested to overcome this barrier. Use of words other than 'target' was considered inferior by most, but it was noted that other terminology would be more politically acceptable. Many representatives suggested additional targets for vulnerable road users, and measuring a range of different indicators of performance linked to Safe System.

> **Study team's reflections and actions:** The study team believes that targets are of key importance. The lesson to be learned from experience pre-2000 is that targets that are evidence based and realistic whilst being ambitious are widely accepted by road safety stakeholders. The draft report reflects the preference of central government stakeholders in terms of terminology used.
>
> The study team considers that key performance indicators are preferable to disaggregated targets as the focus should be on the overall goal. However, in developing policy for specific road user groups it will be up to policy makers to decide if further targets are desirable. In the current climate keeping it simple seems best and if people are concerned about the politics suggesting a proliferation of targets seems unadvisable.

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> A new recommendation has been added to the draft recommendations to address comments on linking targets with areas where there is high public demand for change, such as sustainable objectives relating to walking/cycling initiatives:
>
> *"Set out the shared benefits that road safety can bring to other societal objectives e.g. public health, occupational health and safety, environment, tourism and the economy"*

16.8.8   Most attendees supported **Setting up a task force of governmental and independent experts to encourage the embedding of Safe System** in principle as they considered it would help transfer/disseminate knowledge and strengthen opportunities for collaborative working between organisations. However, there were concerns over its ability to deliver actionable outcomes and to bring together different government departments. It was considered the recommendation and those who should be involved should be more clearly defined in the RSMCR. Suggestions included that it should include practitioners; there should be cross government representation; there should be independent scrutiny; it should support delivery at a local level; ad it should be set up at ministerial level.

> **Study team's reflections and actions:** Terms of reference and recommendations in the draft report have been expanded and revised to reflect these suggestions.

16.8.9   Whilst many agreed that the recommendation to **Promote Safe System Towards Zero as the new transport safety culture in Britain** was a good aspirational aim, there were some doubts as to whether it is realistic, which some perceived could make it difficult to obtain buy-in from the public. Concerns included: local authorities not being equipped to deliver this ambition; the term being ambiguous (i.e. whether it refers to deaths or injuries); the lack of a precise ambition; the cost of implementing such a big culture change; its implausibility given 30% of accidents involve people breaking the law; and it conflicting with promoting walking and cycling in the current road environment.

> **Study team's reflections and actions:** Suggestions around definition of Safe System and its performance framework as understood internationally would be largely addressed in the new strategy.
>
> Cost of implementation is not incorporated into the draft report as the study team considers Safe System to encourage efficiency. The report notes that Safe System treatments have been found to be affordable and cost-effective. Therefore no changes have been made to the draft report or recommendations to reflect these concerns.

16.8.10   Suggestions to overcome these barriers included education around what it means; a clear structure and plan for its promotion; target setting; setting drink drive limits to zero; and ownership by the Cabinet Office.

> **Study team's reflections and actions:** Suggestions around definition of Safe System and its performance framework would be largely addressed in the new strategy.
>
> Suggestions for a review of the blood alcohol limit and the setting out of roles and shared responsibilities in the review are in alignment with these suggestions.

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16.8.11   Many attendees agreed that there needs to be **A review of the national road classification and speed limit hierarchy in line with Safe System principles.** However, there was concern over any outcomes that: reduce flexibility of local authorities to make local decisions where the roads warrant it; are not credible to drivers; are determined by political acceptability. It was also considered driver education and local funding is required to roll out any recommendations.

> **Study team's reflections and actions:** The draft report is only recommending a review, which is fundamental and usually the first step for jurisdictions implementing a Safe System approach.

16.8.12   **Setting goals, targets, and objectives for the new Major Roads Network along the lines adopted for the Strategic Road Network** was generally supported although there was concern that resourcing was an issue for road safety engineers, and that the iRAP tool for local roads was not yet ready.

> **Study team's reflections and actions:** This workshop finding is already reflected in the draft report and recommendations.

16.8.13   There was generally support for the recommendation to **Identify road sections for priority treatments on the Major Roads Network and local roads using iRAP tools in partnership with local authorities.** However, many were concerned with practicalities, in particular that iRAP needs fine tuning as it is not yet suitable for urban roads; that engineers find it difficult to deliver in practice, and would need more resources; that road designers need more education; and that local authorities would need to implement this but have inadequate funding to do so. A standardised measure of risk, to reduce discrepancy between different tools, was also suggested.

> **Study team's reflections and actions:** An urban iRAP tool is being developed.

16.8.14   Most non-government stakeholders supported the recommendation **To provide new focus for vehicle safety policy and research in DfT beyond the current emphasis on connected and autonomous vehicles**, and specified research they considered necessary including research to understand ways to incentivise the public to buy safer vehicles, to understand ways to improve the safety of the grey fleet, and increased focus on Euro NCAP 5* research. Support for this recommendation was less from government and agencies who considered current focus to be appropriate.

16.8.15   The recommendation to **Increase compliance with urban and rural speed limits** was generally supported. However, many barriers were identified, which would require the following to overcome them: more funding, education, enforcement, and consistency between police forces; a change in culture; new technology and other methods to slow speeds; and collaboration between different government departments.

> **Study team's reflections and actions:** Most of these suggestions are provided as recommendations throughout the draft report.

16.8.16   The recommendation to **Support walking and cycling with safety improvements as well as measures to increase activity** was broadly supported, with a suggestion it is extended

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to equestrians. Some specific suggestions for improving the road environment for cyclists and pedestrians were suggested, as well as a change in focus of the recommendation to a 'road danger reduction approach' to ensure public health aims are also included.

> **Study team's reflections and actions:** Consideration of equestrians has been added to the draft report.
>
> A recommendation was added, to "Ensure that the benefits for health of walking and cycling are supported by safety improvements by making funding available for safety measures as well as measures to increase activity".
>
> The study team do not support a perception of danger reduction approach but one based on actual risk assessment of death and serious injury and the safety indicators which directly relate to these.

16.8.17   Whilst there was some support for the recommendation **To establish an inter-departmental road safety working group of senior government officials to oversee national road safety strategy, goals and targets**, there were concerns over its effectiveness, in particular without ministerial lead and attendance by senior officials. It was also suggested attendees would need to be from all areas of road safety and that there should be a clear mandate for the group. Some felt this group should be combined with the task force of governmental and independent experts to encourage the embedding of Safe System to avoid both silos and duplication.

> **Study team's reflections and actions:** Recommendations on co-ordination in the draft report have been revised to reflect these points.

16.8.18   The recommendation to **Extend the fledgling regional road safety partnerships for the strategic road network to cover the Major Roads Network in cooperation with local authorities** was welcomed by most attendees, although there were some concerns about implementation; ensuring consistency across regions; and whether it should be DfT or HE led. There was also a suggestion that the police should be involved.

> **Study team's reflections and actions:** The draft report recommendations suggest that this should be Highways England led and that DfT consider introducing a ring-fenced grant for the establishment of regional road safety partnerships

16.8.19   **A review the funding available to local authorities, as well as funding mechanisms**, was widely supported. It was suggested that this be extended to other government departments and agencies with road safety responsibilities including the police.

> **Study team's reflections and actions:** The draft report recommendations suggest that: National Health England should review funding for ambulances and accident and emergency departments in hospitals to improve response times and trauma care, and that Public Health England should review funding for road traffic injury prevention in its health improvement plans.

16.8.20   **Increase dedicated road safety research budget and programme management capacity to support the implementation of a Safe System approach and demonstration projects**

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across the UK was less well supported than most recommendations. It was generally felt central government research budgets were not lacking, but that capacity to manage research within central government was. At a local level it was thought this recommendation would help with political buy in. The barriers identified to the successful delivery included persuading local authority leaders to fund research. Participants would like assurance that any increased budget would lead to improved research dissemination, quality assurance of research, ensuring research has practical implications, and ensuring the findings of research are applied in practice. There was a concern that independent funding and research interests beyond DfT's requirements must remain.

> **Study team's reflections and actions:** Implementation of a Safe System approach will require new research. The recommendations about independent research advice and the need for a research strategy address this together with ones on capacity building.

16.8.21 The recommendation to **Review Safe System monitoring and evaluation needs** was perceived as important so progress can be seen, successes and mistakes can be learned from, and data collection can be bought into one place rather than existing in silos. Using the European Commissions' indicators of performance was suggested.

> **Study team's reflections and actions**: The European Commissions' indicators of performance have not yet been set.

16.8.22 All groups agreed with the recommendation to **Develop the capacity of the DfT Statistics and Analysis Division to fulfil key national monitoring and evaluation development and to create oversight related to the implementation of Safe System**, although some thought that this responsibility should not necessarily be with DfT and some thought that streamlining the process rather than recruiting more staff was sufficient. It was also suggested that inclusion of more monitoring of education, training and publicity should be included within this recommendation.

> **Study team's reflections and actions:** The study team considered that this task must lie with the DfT, as lead agency. A range of implemented interventions would require monitoring and evaluation.

16.8.23 It was widely acknowledged that there needs to be an improvement in the quality and consistency of CRASH data and in the speed of data availability. Whilst some agreed with the recommendation to **Consider any further incentives needed for police forces for take up of the CRASH reporting system,** and some suggested financial incentives, some made other suggestions to get police forces using CRASH, including providing them with a better understanding about what the data was being used for; keeping CRASH data free; DfT displaying better leadership regarding CRASH data; and making CRASH more user friendly.

> **Study team's reflections and actions:** This recommendation was removed from the draft report following the workshop, acknowledging that the system is free of charge. A recommendation for The Home Office, Her Majesty's Chief Inspector of Constabulary, and the National Chief Police Council, states that: *"Alongside the DfT, they should ensure that one national crash reporting system (CRASH) is used by all police forces"*.

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16.8.24   Many participants agreed with the recommendation to **Establish a national road safety research advisory group to provide independent advice on research programmes and methods in line with identified good practice**, suggesting there needs to be a clear terms of reference for the group. It was suggested the group be responsible for quality assurance audits, checking research is not duplicated, ensuring visibility of research findings, and ensuring road safety campaigns are evidence based. Some stakeholders did not support this recommendation, expressing concern over DfT relying on formally commissioned research, and losing the more 'intuitive research' from academics. Assurance was wanted that the advisory group does not become a repository, that it translates research evidence into practice, and that it is sensitive to different groups priorities for research.

Study team's reflections and actions: Following the workshop the suggestion about terms of reference was added to the main draft report.

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Appendix C: Assessment Framework

1.1 Overview

1.1.1 This section presents the broad scope of the review largely based on the internationally recognised road safety management assessment framework produced by the World Bank[1] and updated for the purposes of this review. The assessment framework provided the review team with the system-wide scope for the conduct and the reporting of the road safety management capacity review. A simple model of the framework is presented in Figure 2.
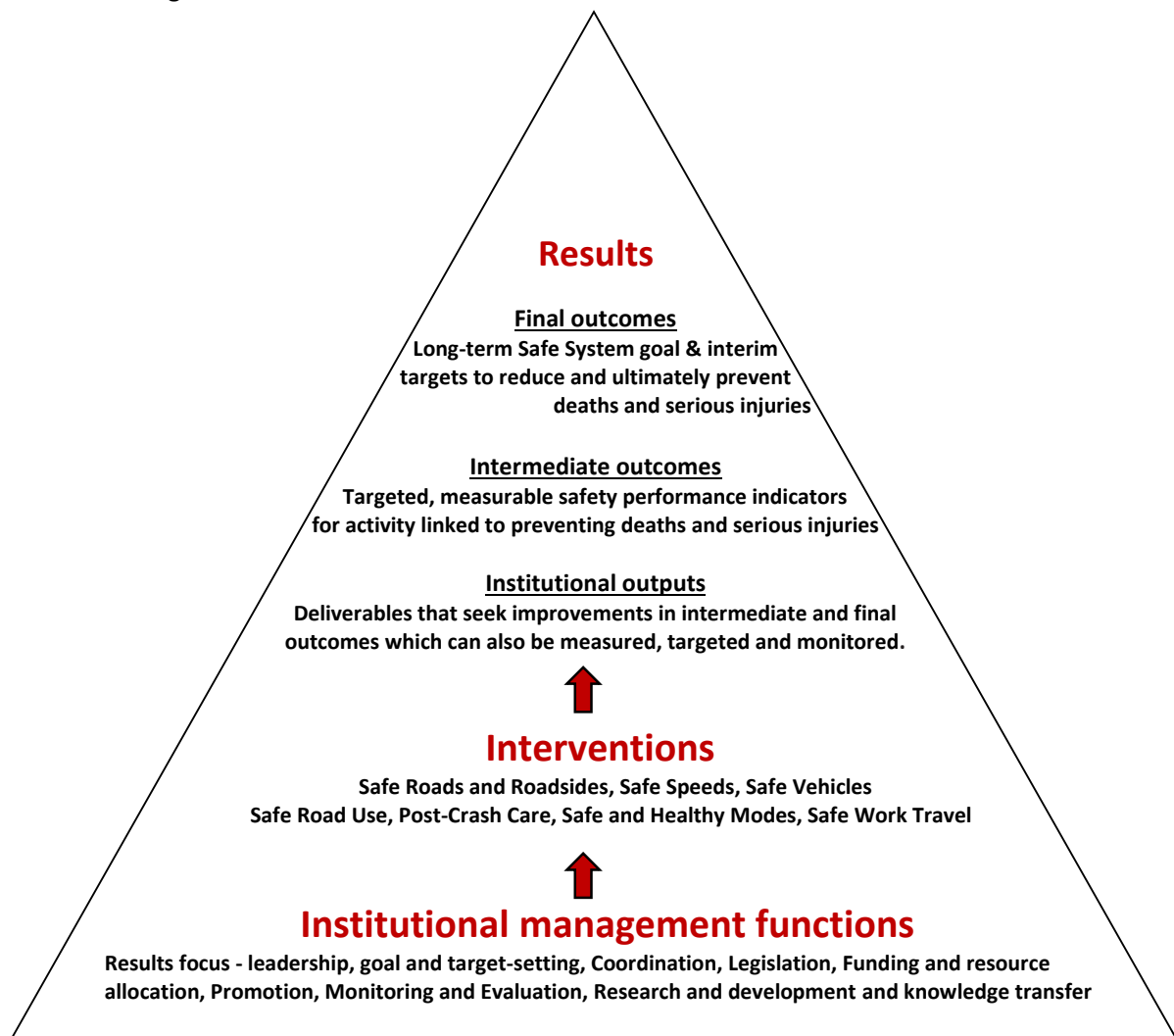
Results

Final outcomes
Long-term Safe System goal & interim
targets to reduce and ultimately prevent
deaths and serious injuries

Intermediate outcomes
Targeted, measurable safety performance indicators
for activity linked to preventing deaths and serious injuries

Institutional outputs
Deliverables that seek improvements in intermediate and final
outcomes which can also be measured, targeted and monitored.

Interventions

Safe Roads and Roadsides, Safe Speeds, Safe Vehicles
Safe Road Use, Post-Crash Care, Safe and Healthy Modes, Safe Work Travel

Institutional management functions

Results focus - leadership, goal and target-setting, Coordination, Legislation, Funding and resource
allocation, Promotion, Monitoring and Evaluation, Research and development and knowledge transfer

Figure 1. **Safe System road safety management system model and assessment framework** [2]

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[1] Global Road Safety Facility: Bliss T and J Breen (2009). Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects. Global Road Safety Facility, World Bank, Washington.

[2] This road safety management model is based on World Bank Global Road Safety Facility, Bliss and Breen (2009) building on the frameworks of Land Transport Authority (2000), Wegman, (2001), Koornstra et al (2002), Bliss, (2004), and updated, Breen, (2017) with reference to World Road Association (2015); OECD/ITF (2016).

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1.1.2 Assessment framework questions to be addressed by the review team were tailored for the purposes of this capacity review to assess all three elements of the national road safety management system.

1.2 Institutional management functions

1.2.1 Based on research into successful, results-focused road safety management, *institutional management* comprises a range of functions. The overarching function is *results focus* supported by *coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation* and *research and development and knowledge transfer*. Capacity for the delivery of each function is important at national, local and organisational levels to produce effective, system-wide intervention.

1.2.2 Successful practice underlines the important role played by the lead agency acting on behalf of national government. The overarching institutional delivery role of the lead agency is the development of strategy and performance frameworks to facilitate results-focused, multi-sectoral road safety activity in full consultation with key agencies and the broader road safety partnership. The lead agency has a key role in the delivery of all institutional management functions while other sectors may lead in the specific delivery of intervention.

Results focus: what results do we want to achieve?

1.2.3 This part of the framework addresses results management and setting the safety performance framework, how priorities are established and the extent to which there is strategic planning for road safety based on a good evidence base and reflecting national policy. For each function the specific role of the lead agency is assessed.

- Is there leadership and accountability for the delivery of results nationally, locally and in the top management of organisations?
- Have road safety goals and targets been set for the long-term and interim?
- Are evidence-based approaches used in assessing priorities and targeted action?
- Are strategies and action plans in line with national road safety approaches and objectives?
- Is there organisational capacity and professional expertise in support of achieving results?
- Are there barriers to the delivery of results and, if so, what are they?

Coordination to achieve results

1.2.4 This section identifies the key ways in which the organisation is coordinating activity both internally and externally, the extent of partnership working, and channels of communication.

- Is results-focused activity coordinated across central governmental organisations?
- Is results-focused activity coordinated between central and local government?
- Is results-focused activity coordinated within and across the organisation?
- Is bilateral coordination pursued, e.g. highways and police, police and social marketing?
- Is results-focused activity coordinated across the road safety partnership?
- Is there coordination with other sectoral objectives and activities to achieve co-benefits e.g. public health, environment, occupational health and safety?

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Legislation meets the road safety task

1.2.5   This section seeks to assess whether current legislation meets the road safety task, whether there are any legislative barriers to the delivery of road safety, and whether there are specific changes to legislation that would be beneficial.

- Does the legislative framework meet the road safety task and the adoption of Safe System?
- Does legislation need to be developed to implement the British Road Safety Statement?

Funding and resource allocation for results

1.2.6   This section seeks information on the economic framework used to determine expenditure, how important road safety investment is considered to be when decisions are made about allocation of budgets, and how any budgetary constraints are being addressed.

- Is investment commensurate with the societal value of preventing death and serious injury?
- Is there prioritisation of effective road safety activity in a climate of budgetary constraint?
- Is there evidence of implementation of Safe System into the mainstream of national, local, sectoral policies?
- Is efficient use being made of existing funding opportunities?
- Are longer term safety benefits taken sufficiently into account in programmes and projects?

Promotion of shared responsibility for results

1.2.7   This section focused on the extent to which and how the organisation is promoting road safety to deliver its responsibilities and its ability to involve other sectors.

- Is there promotion of road safety as a shared responsibility?
- Is Safe System promoted at national and local levels to the community, professionals and policymakers?

Monitoring and evaluation of results

1.2.8   This section covers current practice in data collection and analysis and how the results of road safety interventions are monitored and evaluated.

- Is there regular measurement of the safety quality of roads, vehicles and the emergency medical system and compliance with a range of key safety rules related preventing death and serious injury?
- Is there systematic measurement and evaluation of intervention to prevent death and serious injuries?
- Is there available capacity for data systems and surveys and their management?
- Is appropriate data collected to support Safe System requirements across the system?

Research and development and knowledge transfer

1.2.9   This section explores the organisation of national road safety-related research and the extent to which gaps in knowledge are addressed through research and practical trials and demonstration projects as well as how external research and evidence is explored.

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- Where evidence is lacking, do plans exist for trials and experimentation?
- Is there adequate professional capability to appraise evidence?
- Are lessons and effective practice from national and international work shared?

1.3 Interventions

1.3.1 *Safe System* intervention comprises activity within and between the following: Safe Roads and Roadsides, Safe Speeds, Safe Vehicles, Safe Road Use, Post-Crash Care, Safe and Healthy Modes and Safe Work Travel. The latter two elements are being given new attention in view of encouragement being given to public transport use, the growth of active travel and the opportunities provided by more focus on work-related road safety.

1.3.2 This element of the assessment framework seeks to establish how far current practice is aligned with Safe System principles and key aspects of the delivery of interventions at system and organisational levels.

Safe Roads and Roadsides

- Are the highest KSI risk sections of national and local network ranked for different road types?
- Are surveys being carried out to provide an objective assessment of network safety quality?
- Do standards, rules, guidance address the Safe System approach?
- Are speed limits being aligned with Safe System design principles?
- Is safety impact assessment, safety audit, safety inspection carried out?
- Are longer term safety benefits accounted for in project appraisals and investments?
- Do safe roads and roadsides standards, rules, guidance, practice compare favourably with international practice?
- Do barriers to progress exists and, if so, what are they?

Safe Speeds

- Are speed limits and their enforcement aligned with Safe System principles?
- Is speed limit compliance information available for all road types?
- Are average speeds measured in high-risk, high-volume network sections?
- Is speed enforcement coordinated with publicity to achieve deterrent effect?
- Are the number of hours of speed camera enforcement recorded?
- Are self-enforcing 20 mph zones widely implemented?
- Does guidance for speed management reflect Safe System principles?
- Is Intelligent Speed Assistance trialled, promoted, implemented?
- Is there continuous speed monitoring in commercial and public transport operations?
- Does speed management practice compare favourably with effective international practice?
- Do barriers to progress exist and, if so, what are they?

Safe Vehicles

- Do vehicle type approval objectives, policy and standards address road safety?
- What vehicle safety type approval is envisaged post-BREXIT?
- Are vehicle measures offering largest safety benefits prioritised and promoted?
- Are vehicle safety requirements taken up in public procurement?

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- Are vehicle safety requirements taken up in fleet policies?
- Are vehicle and equipment safety ratings (Euro NCAP, SHARP) used in public & private sector policies?
- How is the safety impact of new vehicle measures evaluated?
- Is avoidance of new safety risks an objective in vehicle automation research?
- Does vehicle safety management compare favourably with effective international practice? Do barriers to progress exist and, if so, what are they?

Safe Road Use

- Are comprehensive user safety standards and rules set for driver/rider licensing and disqualification?
- Do specified standards, rules, related compliance address safety priorities of high risk groups?
- Are compliance regimes for different road types are in place for speed limits, excess alcohol, seat belt and child restraint use, in-car telephone use by drivers, fatigue management?
- Are enforcement and publicity campaigns regularly coordinated?
- Does user safety management compare favourably with effective international practice?
- Do barriers to progress exist and, if so, what are they?

Post-Crash Care

- Are standards, rules, performance targets set for efficient access to the emergency medical system: pre-hospital, hospital, long-term care?
- Is there data/research on the impact of post-crash care in reducing road crash injury consequences?
- Does post-crash care compare favourably with effective international practice?
- Do barriers to progress exist and, if so, what are they?

Safe and Healthy Modes

- Is use of public transport encouraged in local and national policies?
- Are active travel policies accompanied by increased safety provisions for cycling and walking?
- Are safety requirements for public and commercial transport evident in urban transport policies?
- Does safe and healthy mode activity compare favourably with effective international practice?
- Do barriers to progress exist and, if so, what are they?

Safe Work Travel

- Is there available, reliable data on work-related death and serious injuries?
- Are there national, local and organisational strategies for work-related road safety?
- Is there consideration of the evidence base in work-related road safety activity?
- Are there in-house goals targets within organisations for preventing death and serious injury?
- Are there in-house safe travel policies in organisations?
- Is there widespread adoption of BSI ISO 39001: Road Traffic Safety Management Systems standard?
- Does safe work travel activity compare favourably with effective international practice
- Do barriers to progress exist and, if so, what are they?

SYSTRA

1.4 Results

1.4.1 The final element of the assessment framework is to review the results achieved nationally in terms of:

- Final outcomes (deaths, serious injuries and societal value of prevention);
- Intermediate outcomes (measurable activity directly linked to the prevention of death and serious injury (seat belt use, level of average speeds, speed limit compliance, safety quality of roads (iRAP rated) and vehicles (Euro NCAP rated), emergency medical response times); and
- Institutional outputs (measurable institutional activity which is directly linked to achieving intermediate outcomes).

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Appendix D: Table of Reference

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