

APRIL 2023

OUR JOURNEY TOWARDS SAFE SYSTEM...

WHERE WE ARE AND WHAT
DO WE NEED TO DO?



OUR JOURNEY TOWARDS SAFE SYSTEM...

WHERE WE ARE AND WHAT DO WE NEED TO DO?

Tanya Fosdick, Dan Campsall, Momina Kamran & Samuel Scott

APRIL 2023



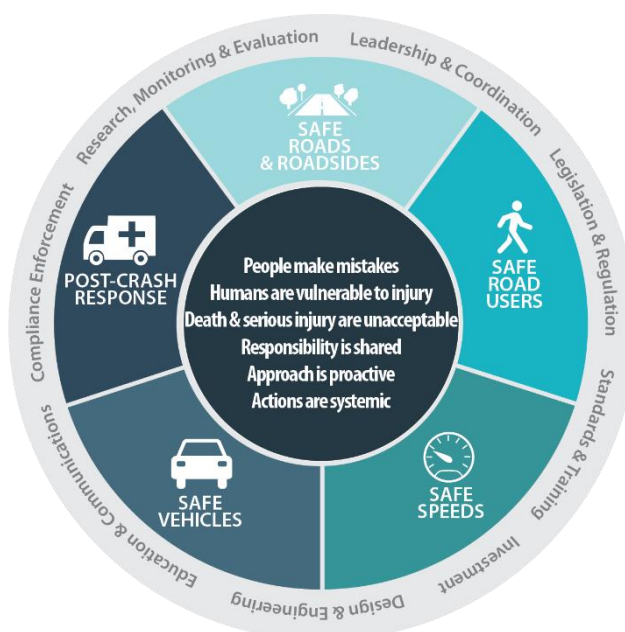
agilysis
WHITEPAPERS

Agilysis' whitepapers seek to shine a light on important topics facing the highways sector. Drawing on the expertise of the authors, they embrace a variety of evidence sources, as well as thought leadership, to unpack complex challenges and their plausible solutions. They are not commissioned research and as such, do not attempt to provide a definitive view for a particular organisation, rather they offer an informed opinion with an invitation for discussion and deliberation. Our ambition is that these whitepapers serve to spark debate, inspire innovation and create coalitions and build momentum to move us forward together.

INTRODUCTION

BACKGROUND

Professionals and practitioners across the road safety sector have understood for decades that enhancing the level of safety experienced by all who use our road transport system is a social mission, a precondition to the improvement of society and the realisation of equitable and sustainable mobility. For those of us who carry forward this call to action, the urge to move towards a system which has the capacity to transform lives through safer and healthier communities has never felt more urgent. In the pursuit of this goal, a systemic approach to road safety management has emerged through the efforts of dedicated individuals, organisations, and road safety stakeholders at all levels – the internationally endorsed Safe System.



In the UK, the permeation of the Safe System approach into national road safety and broader transport policy is a relatively recent development; a process still in its early stages. In 2015, the Department for Transport acknowledged the Safe System approach for the first time as a key priority in building a safer road transport system at the national level (Department for Transport, 2015) and later in its statement of intent to renew strategic action on road safety (Department for Transport, 2019). The sector now awaits the publication of a new and highly anticipated Road Safety Strategic Framework, soon to be released. At the sub-national and local levels, road safety stakeholders are increasingly looking to understand,

apply, and intervene in ways that are aligned with the principles and strategic actions pursuant with a Safe System. To meet the internationally agreed UN target to halve the number of road deaths and serious injuries by 2030 (WHO, 2021), road safety in the UK must be radically re-galvanized based on this approach, if we are serious about fulfilling the promise of Vision Zero and providing global leadership to unify our efforts into a shared strategy. Common approaches will only be achieved through honest appraisal of current performance and will require dialogue between those actors in all areas of the Safe System. The increasing number of active travel initiatives (now a key driver in UK road safety), is also providing motivation for better Safe System outcomes, with a nationwide ambition set for fifty percent of all journeys in urban areas to be either walking or cycling by 2030. (Department for Transport, 2022)

Set against this backdrop, and a sustained stagnation of road safety performance at the national level for the best part of a decade (Agilysis, 2021), those with responsibility for road safety are faced with varying challenges, ranging from public sector constraints (such as funding and resources) and a lack

of expertise; resource sharing with the private sector, to overtly siloed practices that are defined by a sector-wide localism agenda. The business case for evidence-based interventions and actionable strategies to support them is strong – but this is not enough; adapting our approaches to remedy the systemic challenges of an evolving transport system is critical. As an integrated discipline of the transport sector, road safety itself has undergone significant changes, regarding both what is now considered best practice; who exactly has the greatest responsibility within the ‘system’; and which interventions are the most effective at alleviating the unacceptable burden of serious and fatal injury. The symbiotic role of data and technological innovation in road safety has also dramatically changed our expectations of what we thought was possible in the development of novel solutions, shifting the dial firmly away from static car-centric traffic models to dynamic urban mobility and risk management. Building upon what has worked to improve road safety outcomes previously, with a view to meeting the challenges of tomorrow, is imperative if we are to generate meaningful public health and safety co-benefits in collaboration with others.

The Safe System is now at the forefront of discussions by all stakeholders in the sector as to how we change our *modus operandi* for the better, and there is now an ever-growing consensus that this is the approach best suited to delivering the co-benefits of a safer road transport system for all. How exactly we move forward as a sector is altogether less clear, however, and this journey towards a Safe System is producing potent questions and marked uncertainty around what the sector needs to do to fulfil its promise. This uncertainty around our collective competencies as a sector to understand, apply, and embed Safe System principles and actions, at a strategic and operational level, is indicative of a wider obstacle hindering progress – a lack of understanding around the sector’s current Safe System capacity.

SAFE SYSTEM CAPACITY SURVEY

Conducted in the summer of 2022, the Safe System Capacity Survey has been used to diagnose where we are as a sector on this journey, bringing into focus what we need to do and the next steps for us all. The aim of this exercise was to present a snapshot of current sectoral capacity to understand, apply, and implement the Safe System at all levels. This has allowed us to identify areas of strategic focus where comprehensive efforts are currently being made, as well as gaps and looming vulnerability in the system where capacity is most in need of expansion and attention.



Road safety stakeholders from across the sector, representing a cross-section of public sector organisations involved in UK road safety, have provided insights to inform a more complete picture of

current sectoral capacity. The survey itself has been designed to accommodate this broad coalition of partners who are involved in reducing harm on our roads, covering effort at the national, regional, and local levels. Future iterations of this exercise will look to expand the design methodology of the survey to account for stakeholders who did not fit into the current public sector categories: including non-governmental and third sector bodies. It will be repeated to help develop a longer-term understanding of capacity as an ongoing risk to the sector's future development. For all those involved with and who have participated in this exercise, improving the inherent value of road safety outputs to better counteract the ubiquity of road trauma is a critical focus of public policy. This white paper is intended to empower stakeholders to better understand where we are and what the sector needs to do to make tangible progress towards a Safe System.

HEADLINE ANALYSIS

The Safe System Capacity Survey represents a detailed analysis into the current state-of-play pertaining to the constituent components of the Safe System and its various levers or ‘change mechanisms’ which facilitate strategic action in each area. The level of focus, resource, capital, guidance, and strategic co-ordination designated specifically to Safe System working has provided seminal insights into sector-wide variations, between different roles, regions, and organisations. The [headline analysis](#) of the survey results was released to support a webinar series, where key outtakes and road safety expertise were brought together to consider next steps. Building upon this high-level analysis, critical questions are explored regarding how well stakeholders understand and are engaged with the Safe System approach and its imperatives as the guiding instrument to design and implement road safety interventions, and to enhance their portfolios more broadly. The results of the survey have been segmented at the organisational level, reflecting this need to elucidate capacity between organisations to deliver the Safe System.

Local highways authorities, as those with responsibility for local road networks, generally recalled that the Safe System was an ‘holistic approach’ where different components interact systematically to minimise risk and where ‘preventative’ action is taken by all stakeholders and road users. There was an equally strong recognition that a ‘proactive’ rather ‘reactive’ ethos is critical. For a notable proportion of those who answered, however, the Safe System means changes to only ‘engineering measures’, ‘education, training, and publicity’, or the ‘operating speeds’ of the road network. Equally as many respondents successfully identified all five of components of the System, with these respondents often relaying many of the principles which underpin the Safe System approach. Vision Zero was frequently cited as the overarching goal of the Safe System. There was a lack of recognition by some around the need for post-collision response and safe vehicle enhancements, and almost universally, there was minimal recognition of the Safe System levers needed to facilitate strategic action under Safe System components.

There was a mixture of response about who the Safe System was for and its integral relevance to local authority action on road safety, with some reporting that they had ‘no idea’ what the Safe System was or that it was merely a ‘management tool’.

Amongst Fire and Rescue Service respondents, ‘partnership collaboration’ and ‘supporting other workstreams’ were identified as part of ‘making a valid contribution to developing a Safe System.’

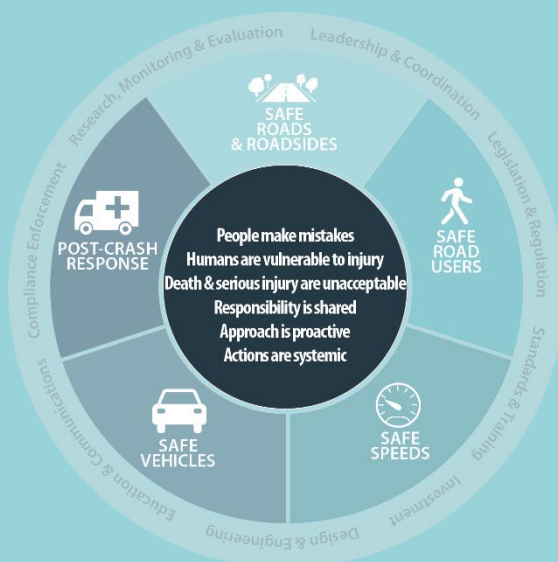
As was the case for local highways authorities, many respondents answering on behalf of police forces identified the System’s core components. Notably, police forces were more likely to note that the Safe System represented a ‘cultural shift’ away from reactive policy where the focus was on ‘blaming drivers or riders.’ Guidance on the appropriate articulation and application of Safe System was noted as important for further development.

The majority of those answering on behalf of transport authorities and local road safety partnerships recalled the Safe System principles consistently. The level of accurate and in-depth recall as to what it is meant by the Safe System, however, varied amongst respondents for these stakeholder groups.

It is necessary to investigate the internal capacity of organisations, but also to recognise the need for proactive work across the sector that builds resilience in the constituent elements of the Safe System, leveraging the maximum resource available to bring about change.

UNDERSTANDING THE SAFE SYSTEM: PRINCIPLES

The system represents the interaction of users of different modes within the road space, and the safety of that system requires an understanding about the nature of humanity, the effects of these interactions, and a shared expectation about minimum standards for system operation.



- **People make mistakes**

Humans are fallible. We cannot expect their behaviour to be completely consistent and performance will vary through factors such as personality, energy, and mood.

- **Humans are vulnerable to injury**

Human physiology facilitates our movement at speeds of up to 20mph, and our bodies cannot really tolerate forces from speeds beyond that level. This means that impacts at higher speeds or with extremely heavy objects (such as vehicles) will almost certainly result in serious or catastrophic injury.

- **Death and serious injury are unacceptable**

We cannot accept a system in which these catastrophic outcomes are experienced. We have a moral responsibility to manage the system and eradicate the most severe effects.

- **Responsibility is shared**

Injuries suffered while using or working on the system don't necessarily indicate that an individual was at fault; it is an indication of the system overall failing to protect users. This means that strengthening the system to make it more resilient requires efforts from designers, operators, and users.

- **Our approach is proactive**

Waiting for the system to malfunction before addressing points of potential failure cannot be supported. Data about safety performance should be used to strengthen the system, reducing this risk.

- **Our actions are systemic**

All parts of the system must be strengthened to multiply their effects. Improving relationships among parts of the system will support the optimisation of the whole.

STRATEGY

To operationalise targets, actionable strategies are critical in pooling together resources, defining accountability, and sharing expertise in the most efficient way to target better road safety outcomes. A third of those surveyed reported that their organisation has an up-to-date road safety strategy that they are delivering upon, with over 40% reporting that they are currently developing a new strategy or working on the implementation of an adopted strategy. This is encouraging news: 70% of those surveyed were either working to an up-to-date survey or were developing one.

The largest proportion of both local highways authorities and transport authorities (regional or national bodies such as National Highways, Transport for London or Transport for West Midlands) are currently developing a strategy, (25% and 36% respectively), with 24% and 19% (respectively) of these organisations delivering on already up-to-date strategies. Most stakeholders would like to create and deliver a new road safety strategy as a future ambition (53%). In addition, the organisations surveyed would overwhelmingly like to see partnership working either established or improved as part of their role (71%).

Whilst most were enthusiastic about working to a relevant strategy, 21% of those answering for road safety partnerships indicated that they did not know if they had a strategy in place or not, or if they had plans to develop one.

TARGETS

Experience in the UK and elsewhere has shown that measurable targets incentivise action on road safety, and that they are likely to increase commitment to the effective implementation of policies in this area (PACTS, 2010). Road casualty reduction targets have historically been set as high-level goals, without consideration of how priorities and resources connect to operational capacity in order to actually achieve the agreed upon targets. The long-term ambition of Vision Zero, which aims for a road transport system free of serious and fatal injuries, and the UN agreed target for a fifty percent reduction in fatal and serious injuries by 2030, are in place for less than half of those who took part in the survey. Fire and Rescue Services (FRS) and transport authorities were the most likely to say they have adopted these targets (including as part of a partnership). In contrast, local highways authorities (LHAs) and police forces who took part were far less likely to state that they had these targets in place, with only 45% of local highways authorities and 33% of police force respondents stating that they had adopted Vision Zero as a holistic goal at the organisational level. This division is reflected in the proportion of those who stated they have a target for fifty percent reduction in fatal and serious injuries by 2030, with only a third of local highways authorities and police forces subscribing to this target. Given that road safety partnerships and those answering explicitly on behalf of Fire and Rescue Services were far more likely to agree they had a '50 by 30' target in place, it is clear that the supportive apparatus provided through partnership working is yet to result in local authorities and police forces adhering to high level targets.

PERFORMANCE MANAGEMENT

The sector's discourse around local performance management in road safety, supplementing achievement of national targets, has evolved over recent years to reflect a growing appetite by stakeholders to monitor their own performance locally. This discourse has been focused around developing disaggregated safety measures to monitor the operational safety of local networks, otherwise known as safety performance indicators (SPIs). Previous diagnostics of SPI development at the local level have shown that whilst local road safety stakeholders are, in many instances, actively developing disaggregated measures across the Safe System components, persistent variation exists around data collection capabilities and methodological application. (Agilysis and Road Safety GB, 2022) At the organisational level, only a minority of stakeholders reported that they have SPIs in place (19%).

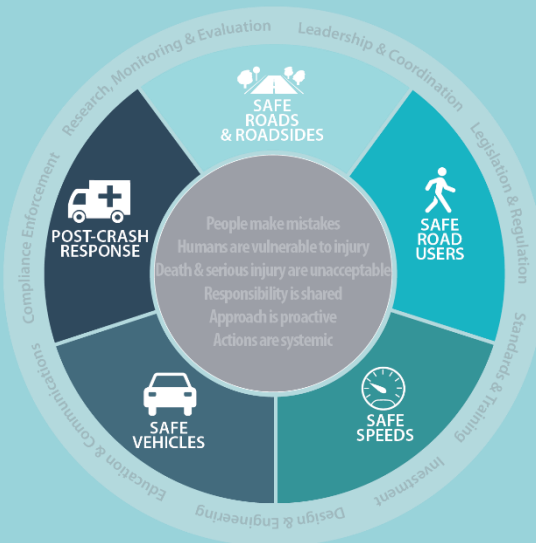
Across those surveyed, road safety partnerships were the most likely to report having SPIs in place (36%). This reflects sentiment from some local highways authorities that SPIs are "being finalised and adopted for [their] regional partnerships". Comprehensive development and measurement of local performance measures is evidently connected to the level of partnership working across the sector, with stakeholders on an individual basis generally not in a position to measure active SPIs as part of strategic action on road safety.

It is early days on SPI development, and it can be challenging at the local level to identify consistent, cost-effective methodologies for SPI data collection. However, through this survey and the Road Safety GB project, it is clear there is an appetite amongst local representatives to co-develop SPIs methodologies that can be used to measure performance between authorities and over time.

THE SAFE SYSTEM IN ACTION

The Safe System involves applying many strategic actions and policy levers in order to increase the resilience of the road transport system. Whilst road safety organisations will naturally be involved with some of these actions and change mechanisms more than others, systemic change means that all stakeholders, (regardless of their position in the sector) need to understand how their operations fit into the wider intervention landscape; to better synchronise and collaborate on known interventions that work.

UNDERSTANDING THE SAFE SYSTEM: COMPONENTS



The Safe System recognises that there are a variety of interdependent system elements that work together to protect road users from serious harm.

- **Safe Roads & Roadsides**

Roads are designed to reduce the risk of crashes occurring and roadsides are forgiving for occasions when mistakes occur. Segregating traffic to protect vulnerable road users is prioritised and the treatment of dangerous roads is proactive, improving both the actual and perceived risks to road users.

- **Safe Road Users**

Road users are educated or regulated in their use of the roads, according to their modes of transport and levels of risk. Drivers receive high quality training and testing and are expected to comply with road traffic laws, meanwhile provision is made to support children, pedestrians, and cyclists to travel in safety.

- **Safe Speeds**

Road users' ability to avoid crashes and their survival in the event of a collision is directly affected by the speed and consequent energy involved in the system. Safe speeds recognise human frailty, either in decision making or in surviving an impact, and ensure that higher speeds are only feasible where the environment and infrastructure, and vehicles, can support and protect them.

- **Safe Vehicles**

Vehicles offer a high level of safety to both occupants and other road users. Fundamental safety systems, such as seatbelts, are augmented by more advanced active safety measures, like autonomous emergency braking and electronic stability control. Routine checks for all vehicles ensure that they are maintained to the highest safety standards.

- **Post-Crash Response**

In the event of an incident, emergency medical response should reach any injured parties quickly, transit to high quality trauma care is rapid, rehabilitation services are readily available, and victim support is on hand. After the incident, data on the causes of the collision feed into systems to rehabilitate roads and evaluate how the system can be strengthened.

SAFE ROADS AND ROADSIDES

Within a Safe System, roads should be self-explaining and incorporate integrated active travel and urban planning provisions, which segregate different modes and vehicular speeds. Roads should be designed and engineered to facilitate safe speeds and road use, whilst mitigating the burden of serious and fatal injury when collisions do occur.

Almost seventy percent of those surveyed stated they had a role to play in encouraging safe roads and roadsides. Whilst transport authorities were overwhelmingly more likely to influence and deliver on road safety audits and maintenance inspections in their area, local authorities were far more likely to assign themselves a role in undertaking site analysis, route reviews, and formulating schemes based on historical data. Whilst police forces, partnerships, and transport authorities also reported they had influence in these areas, a much greater proportion stated they had no role to play in these areas. The majority of respondents reported that they had no role in undertaking proactive route reviews and road safety rating exercises (using iRAP). This reflects broader engagement patterns with iRAP at the local level, with those who choose to invest in using iRAP seeing the benefits to their road safety management efforts (Agilysis and Road Safety GB, 2022). The award-winning Safer Roads Fund is making further progress in this area by supporting authorities to treat high risk sections based on application of the iRAP methodology.

Only 8% of local authority respondents stated that they had a direct role in providing infrastructure for active travel or integrated transport schemes. This pattern of minimal involvement by local authorities with road improvement portfolios is reflected in findings for the level of engagement reported overall with transport and land-use planning and integrated traffic management. It suggests that the respondents to this survey are predominantly focused on road safety activities and that active travel is the remit of others. Multimodal transport and land-use planning is a key ingredient in implementing the Safe System; it establishes an optimal mix of motorised and non-motorised transport modes to ensure equitable access to mobility (WHO, 2021). The single focus of respondents to this survey may be indicative of some of the internal disconnects between road safety and active travel remits, which must be overcome.

The majority of the organisations included in the survey agreed that they had sufficient data and standards for this Safe System component, whilst out of the small number of respondents who agreed they had sufficient budget for safe roads, 17% represented police forces.

SAFE ROAD USE

The Safe System approach is based on a systemic application of the principle of shared responsibility between all those who design, manage, and use the road transport system. This contrasts with traditional approaches which disregard the need for responsibility to be diffused throughout the system, and which places primary focus on the behaviour of road users.

Eighty-seven percent of those surveyed stated that they had a role in encouraging safe road use, reflecting the focus on action in this area historically. The responses suggest that whilst there is a high level of focus on safe road user, it tends to be a narrow band of activity around education, rather than delivering a broader suite of behavioural interventions. Across the recommended strategic actions, the level of engagement either through delivering, influencing, or managing road user interventions was higher than for other actions within other components of the Safe System. Road safety organisations, particularly local highways authorities and Fire and Rescue Services are far more likely to manage both the design, and delivery, of community and educational initiatives than others in the

sector. This is also true of delivering targeted and evidence-based interventions. Given that police forces, partnerships, and transport authorities are more likely to undertake evaluation and monitoring of interventions, this shows that there is a disconnect between the intervention process and evaluation activity, which should be conducted as part of iterative processes if sector practitioners are to demonstrate active learning and accountability for intervention success.

Whilst there are much higher levels of agreement around organisational capacities to support strategic action for safe road use, partnerships, police forces, and transport authorities in particular were far more likely to report that they have sufficient data, systems, and process to encourage safe road use.

SAFE SPEEDS

Speed management within a Safe System context means that speeds are managed to ensure they are within the limits of known physiological tolerance to collision forces, where people's vulnerability and fallibility are factored into strategic actions.

Almost ninety percent of those surveyed stated that they had a role in encouraging Safe Speed. Management of speed limits (the setting and reviewing of speed limits) is directly delivered by local highways authorities and transport authorities.

The deployment of speed management tools is again directly delivered by local highways and transport authorities, and to a lesser extent, police forces. Whilst half of transport authorities stated they influenced action to implement such interventions, this was less than a third for local highways authorities (28%).

Compared to other strategic actions to manage safe speeds, a greater proportion of those surveyed amongst all organisation types said that they had no role in designing roads to reduce speeds (50%). Meanwhile all organisations, particularly road safety partnerships, were directly involved in educating road users on speeds limits and compliance. Designing roads to align with the principles of Safe System needs to complement interventions aimed at educating road users to change their behaviour, and without this dual focus, roads cannot systematically mitigate the level of serious and fatal injury caused by speed.

When asked about the different capacities needed to carry out these strategic actions, the majority of those surveyed, representing all of the different organisation types, disagreed that they have enough budget and staff resource to encourage safe speeds locally. However, all organisation types agreed that they had sufficient political will; data and knowledge; and standards to effectively manage speeds. Generally, all organisations were unsure or disagreed that they had sufficient systems and processes in place to encourage safe speeds in their area (53%). This gap in capacity suggests that for all participating organisations, development of standardised approaches and agreed methods would help to empower practitioners in encouraging speeds that are within Safe System limits.

SAFE VEHICLES

The designs of vehicles which use our road networks, and their impact on safety, is increasingly under scrutiny, with connected data systems (vehicle-to-vehicle; vehicle-to-infrastructure) playing an ever greater role in transport planning and road safety management. Whilst over sixty percent of those surveyed stated that they had a role in encouraging safe vehicle use, organisations generally reported having no role in lobbying for better vehicle legislation or regulation; utilising recommended vehicle safety standards in vehicle procurement; and promoting vehicle safety technology systems (such as ISA and AEB).

There is a sustained lack of capacity to deliver, manage, and influence on a wide range of areas where attention is urgently needed to enhance the safety of vehicles. The only area where there is a strong level of influencing around a strategic action was in encouraging good vehicle maintenance; this is particularly true of those who answered from Fire and Rescue Service (50%) and transport authorities (50%), with 86% of partnerships respondents having stated that they either directly deliver for, or have influence in, this area. Stakeholders across the sector need to engage more proactively with these other strategic actions otherwise the resilience of the Safe System will be severely comprised in this area.

When asked about their capacities to support and encourage vehicle use, only a majority of police force and partnership respondents agreed that they possessed sufficient knowledge and training to encourage safe vehicle use locally (50% and 43% respectively). Political will to enact change in this area, as well as sufficient data, standards and processes to encourage safe vehicle use are all lacking, according to those surveyed.

POST COLLISION RESPONSE

Improving post-collision response and emergency care not only reduces the burden of road trauma experienced by those involved in collisions, but reduces the societal cost associated with response and care provision. (Nemeckova & Atchison, 2019). Systemic focus on integrating the most-up-to-date research and best practice into strategic action is crucial. Improved approaches on how emergency services respond to motor vehicle collisions, surrounding extrication methods for example, has received notable attention at the national level. (National Fire Chiefs Council, 2022)

Only forty percent of those surveyed assigned themselves a role in post collision response; similar to the reduced assignment of organisational roles in strategic actions for safe vehicle use. These sentiments translate into many associated strategic actions, such as the promotion of accident and emergency call systems (AECS and eCall technology), where a third of those surveyed stated said they had no role. Fire and Rescue Services reported (50%) that they are directly involved with either the promotion of location tools (what3words etc.) or providing ground level post-crash support and funding. To a slightly lesser extent, Fire and Rescue Services either provide emergency responder training or trauma management expertise. For all of these strategic actions, input from other organisations was much lower.

The value of partnership working in this area to enable wider action to be taken, particularly around the undertaking of data analysis and post-collision investigation, is clear, whilst individually, local highway authorities and Fire and Rescue Services were less inclined to say they are directly delivering these actions.

The majority of the organisations included in the survey disagreed that they enough budget, resource, and procedures to assist post-collision response operations in their area.

Post collision response has not been a traditional responsibility of many of these organisations and this needs to be reflected in the responses. It should, of course, be a shared responsibility and therefore helping organisations to understand their role in this component will be key moving forwards.

SAFE SYSTEM LEVERS

The increasing level of recognition of the Safe System as the benchmark of best practice is often centred around the key components where strategic action is required. Discussion around the means to facilitate these actions is altogether less developed in UK road safety discourse, however; a key aim of this exercise was to shed light on current sectoral capacity to apply these Safe System levers or 'change mechanisms.'

UNDERSTANDING THE SAFE SYSTEM: MECHANISMS

Most Safe System Models have a number of functions or system operators around the outside. The ones in the model shown below have been synthesised and grouped based on leading models in the international literature. Nevertheless, they are often overlooked in practice as organisations and groups of organisations focus heavily on the elements described as the main Safe System components.



System Operators are the mechanisms by which the system works. Without the design and engineering component, there are no roads or vehicles; without legislation and regulation, there would be no established norms or expectations around how they could be used; without research, monitoring and evaluation, we would have no idea of traffic flow, collision densities, road user risk or the efficacy of defensive measures.

RESEARCH, MONITORING, AND EVALUATION

Many road safety stakeholders do not regularly evaluate their interventions, with research showing that often only positive evaluations are published (Fosdick, 2019). This scenario means that ineffective interventions, which may result in unintended consequences, are far more likely to continue to be used as part of road safety toolkits. A lack of evaluation also means that stakeholders are less able to demonstrate how learning and accountability are embedded in the design of their interventions as iterative processes, where research insights and monitoring are utilised. Positively, the majority of local highways authorities (65%) and transport authorities (71%), partnerships (64%) and Fire and Rescue services (75%) reported that they are involved in research, monitoring and evaluation. Less than half of police forces, however, said that they are involved with this lever. The survey did not unpick the methodologies used in research, monitoring and evaluation and therefore whilst organisations are completing these activities, it is not possible to comment on the rigour of the outputs. These results on evaluation provide a contrast to the lack of monitoring of fully developed

performance indicators and in-depth analytical outputs. As a future ambition, the majority of organisations would like to improve their analytical outputs from data collected (56%).

EDUCATION AND COMMUNICATION

Reflecting the much higher response rates for Safe Road Use, for delivering on educational and communication outputs, it is unsurprising that three-quarters of all those surveyed are involved in applying this lever in the context of road safety. It is imperative that others receive equally as much attention, as reliance on only a handful of levers risks undermining the integrity and development of Safe System solutions.

STANDARDS AND TRAINING

Road safety stakeholders are often in a unique position, despite the lack of relationships with private sector organisations, to assist in the development of standards and training across all of the Safe System components. This includes maximising opportunities to influence better safety standards for interventions, data collection, and sector-wide operations. Mirroring a lack of strategic action in lobbying on standards for Safe Vehicles (such as commercial vehicle standards) and emergency response standards, respondents generally are not involved in applying this lever to improve road safety outcomes.

POLICY DESIGN AND FORMULATION

In countries such as Australia, even though the Safe System has become the dominant approach within public policy for road safety, ambiguity around local interpretation and implementation persist (Green, Muir, Oxley, & Sobhani, 2022). Designing road safety policies in this context requires expertise across specialised areas, resulting in policy goals that are supported by evidence-based intervention and insight; goals which are both easily understood and digestible at the local level. Notably, transport authorities, who typically are responsible for local road networks much larger than other stakeholders, were the most likely to state they were involved in this lever (64%). Half of those surveyed from road safety partnerships said they were involved in designing road safety policy, suggesting that the pooling of expertise within these forums provides a greater imperative for collective contribution in this area. Nationally, the role of the Parliamentary Advisory Council for Transport Safety ([PACTS](#)) and collaborative working among road safety stakeholders as exhibited in the [Safe Roads for All](#) report (Safer Roads for All, 2021) can provide greater participation and coordination for public sector bodies in policy formation and advocacy.

DESIGNING AND ENGINEERING ROADS AND VEHICLES

Engineering roads to ensure that local road networks have sufficient synergy with other strategic actions is part of the challenge in embedding Safe System principles into the road environment and associated infrastructure. Just over a third of stakeholders stated they applied this lever, suggesting that those with responsibility for collaborating with others in this field either did not fill out the survey, or that engineering organisations who operate in road safety were not represented in this exercise. Notwithstanding these observations, lower response rates for involvement in this lever suggests that practical knowledge and experience in Safe System engineering and application to vehicle design is lacking; corroborated by consistently low response rates for a number of strategic actions related to vehicle design standards, and standards for road design and implementation.

LEADERSHIP AND CO-ORDINATION

Many stakeholders look to central government for both support despite the fact that strategic guidance and leadership on road safety is perceived to be lacking at the national level. Moreover, it is

concerning that many respondents noted that they do not collaborate or communicate with partners in the sector; whilst on the other hand, co-ordinating road safety activities with partners is perceived to be a key driver of Safe System success. Leadership in co-ordinating Safe System actions involves driving forward the establishment of other supporting levers included in this survey, and advocacy within the sector's networks. At least a third of each type of organisation included in the survey said they are not involved in providing any form of leadership in the sector, with local highways authorities stating that they were least likely to be involved (55%). At least seventy percent of organisations, with the exception of road safety partnerships (57%), stated that they co-ordinate road safety activities. This validates the sentiment echoed more broadly that road safety stakeholders would like assistance in either establishing themselves within partnerships or improving current working in these forums. It should be noted that Scotland's Road Safety Framework to 2030 (Transport Scotland, 2021) has been developed with a high degree of alignment with international guidance on Safe System and involves high level road safety targets and a supporting performance management framework.

ENFORCEMENT AND COMPLIANCE

Over the past decade, the number of roads policing officers has decreased markedly, affecting the national level of capacity allocated to enforcement activity. On levels of compliance, there has been no noticeable reduction in road deaths over this time period where contributory factors associated with offending (traffic violations) were attributed, despite the availability of new and improved technology to support detection of offences and increased compliance. (Norbury, 2020) Seventy-two percent of police forces stated that they were involved in enforcement and increasing compliance with the laws, suggesting that policing capacity to apply this lever to roads locally is far from universal.

INVESTMENT

Investment to fund strategic actions and supporting levers across the Safe System is a key concern by those who took part in this exercise, with less than half of those surveyed reporting that they themselves were investing in road safety activities (47%). This was particularly true of police forces (33%) and local highways authorities (48%).

LEGISLATION AND REGULATION

Robust legislation and regulation are critical to ensuring that minimum levels of standards on safety are embedded into the implementation of interventions across the road transport system. Legislation to mandate vehicle safety features on all new vehicles, such as intelligent speed assistance (ISA), and programmes such as Global NCAP, are driving forward change in the international sphere. Applying pressure in these levers is required to ensure the benefits of the Safe System are generated on a long-term basis, yet 84% of those surveyed are not involved in either developing or lobbying for better road safety legislation and regulation.

SECTOR INSIGHTS

BARRIERS AND FRUSTRATION

Recognition of the frustrations felt by road safety professionals means that as a sector, we take seriously opportunities to understand and remedy the strategic barriers which limit Safe System capacity development. This exercise has revealed several common threads recognised by many who participated in this survey; persistent barriers in road safety management at both the local and national levels.

Funding for road safety, as a distinctive pillar of transport policy, is regularly cited as a systemic barrier to better outcomes. Whilst there has been an upward trend in local transport capital grant funding from central government (fixed-assets and infrastructure projects, such as segregated cycle lanes), there has been a sustained decline in direct resource funding for local transport bodies over the last decade (Fuller & Davis, 2018). Road safety funding is often stripped away or even traded off in favour of outcomes in other policy areas, often for political reasons (Tingvall, et al., 2020). The results of this survey unequivocally show that responsible stakeholders in road safety feel that both capital and revenue funding has generally decreased over recent years, with only police and partnership funds having been reported to have increased slightly.

Delving deeper into frustrations experienced more broadly by those in the road safety space show that there is strong sense amongst professionals and practitioners across the sector that road safety is not a priority for their organisation (42%), and whilst the same proportion indicated road safety is a priority for the organisations they represent, 18% neither agreed nor disagreed that it was a priority. Notably, a greater percentage of LHAs agreed (44%) that road safety is not a priority for their organisation than disagreed (37%). Partnerships and transport authorities were far less likely to agree that road safety was not an organisational priority. The perceived lack of priority overall for road safety has marked implications for all areas of capacity development, affecting the level of strategic focus on evidence-based interventions, through to the level of consideration given by decision-makers to the Safe System and its guiding principles in matters of road safety policy.

LEADERSHIP

Generally, the survey revealed a high level of organisational agreement (68% overall) that a lack of support from Government was a key frustration, with only transport authorities more likely to disagree (43%) than agree (36%) that this is not a frustration in the context of building Safe System capacity. Significantly, a considerably higher proportion of local highways authorities felt that a lack of strategic guidance was a frustration (60%) than those who did not (13%). This was markedly higher than the overall difference in net agreement (48%) versus disagreement (27%). Local highways and larger transport authorities both look to Government (either DfT or associated agencies) consistently for support and guidance, as well as third sector bodies, such as RSGB and local police forces. Given that local authorities with responsibility for road safety make up the vast majority of the sector's stakeholders nationally, this finding exposes a systemic gap in current capacity, affecting the strategic co-ordination of road safety activities across local road networks. Encouragingly, however, a greater percentage of those surveyed disagreed (43%) that a lack of support from partners was a frustration than agreed (29%). This was true of all organisations except road partnerships, where the majority of representatives 'neither agreed nor disagreed' (43% that lack of support was frustrating). This finding speaks to a particular idiosyncrasy of the sector – that partnership working continues to be fragmented, with disparities in individual organisational involvement and geographic development.

PROFESSIONAL DEVELOPMENT

A lack of professional identity, based on limited opportunities for accreditation and training amongst individuals in road safety has persisted in recent years, with research having highlighted perceived disparities in this area in comparison with professionals in other sectors, notably those in engineering and public health roles (Fosdick, 2019). The survey has revealed that there is little consensus across different stakeholders that a lack of training and personal development is experienced as corporate frustration. The greater proportion of respondents from Fire and Rescue Services (63%) and local highways authorities (31%) answered that they ‘neither agreed nor disagreed’ that this was a personal frustration. Partnerships, police forces, and transport authorities, however, disagreed overall that either of these issues were frustrating for them. A majority of those surveyed stated, however, that they would like to incorporate Safe System training into their role moving forwards (55%). Whilst there is interestingly a strong level of motivation to utilise such training, road safety professionals and practitioners generally feel well supported by their own teams and also there is not a lack of understanding or motivation within road teams to deliver on Safe System. This contradiction speaks to inconsistencies between applying knowledge learnt and translating Safe System principles into reality.

Insufficient data and limited analytical skill within teams to utilise available data are generally not perceived to be a key frustration amongst those surveyed. Previous diagnostics into the ‘state of play’ in SPI development has recently shown, however, that many stakeholders are not monitoring SPIs as part of their portfolios or are in the process of developing capacity in this area – highlighting that the collection of data and its use, as well as uniform methodological application across Safe System component areas, remains inconsistent. (Agilysis, 2021)

COMMUNICATIONS, SUPPORT AND EVIDENCE

Close communication enables both policy makers and practitioners to be proactive and informed, exposing those components within organisations where cultural maturity towards Safe System is being taken seriously, and crucially where support in neighbouring areas is needed to optimise the benefits of capacity development everywhere.

This exercise highlights that there is little or no collaboration with road safety organisations in neighbouring areas (51% aggregate response rate); some communication with no follow up collaboration (19%); and less than a third of organisations collaborating closely with neighbouring road safety stakeholders (29%). A majority of respondents answering on behalf of local highways authorities (49%), police forces (56%) and partnerships (50%) all stated that they had little collaboration with those with responsibility for road safety in neighbouring areas.

This represents a serious deterioration in sharing practice with neighbours and across regions, for which highly developed structures have existed in the past. Networks of regional meetings and contact with support from DfT provided partnerships with a mechanism for accessing guidance, latest learning and sharing good practice examples of intervention design, campaign development, application of support systems and programme evaluation. These networks were largely hosted and facilitated locally with minimal central administration apart from a small programme team that could offer advice on policy developments, technical standards, analytical approaches, and examples of emerging practice around the country.

Safe System interventions rely upon good quality evidence, with local highways authorities preferring sources from national road safety bodies, academia and the third sector. Road safety partnerships generally agreed that material provided by other partnerships, as well as research bodies such as the

RAC Foundation and Road Safety Foundation are the basis of their evidence. Fire and Rescue Services and police forces overwhelmingly stated that internal local collision data is the primary source of their evidence. Whilst this shows that the majority of stakeholders gather insights from multiple areas in road safety, the extent to which best practice and the most up-to-date evidence is being utilised across the sector is by no means embedded.

STRENGTHS AND VULNERABILITIES

This exercise has revealed that the Safe System is becoming increasingly accepted by stakeholders nationally as the way forward, with good levels of understanding for what this approach means for their own operations. Understanding of the principles of the Safe System, and how they inform changes to road safety management to build a resilient system, is less evident.

Strategy development, including targets and performance monitoring, is gathering momentum amongst stakeholders; aided by ever increasing data collection efforts and recognition of the need for better sector wide-collaboration and partnership.

Even though there were strategies available to practitioners, the need to develop new and additional strategies, alongside targets and actionable analytical outputs with robust data collection, is evident. This may highlight a lack of integration between strategies at the policy level (where road safety strategies are not sufficiently integrated with transport planning, public health, policing etc), but also the need for strategic direction to cascade geographically, reflecting responsibilities and governance appropriate to the administrative area. Further improving partnership working is also a key area identified, even though it was reported as strong. Within strategies, having a strategy and implementing it successfully is an ongoing challenge, with safe vehicles and post collision response being the most difficult to navigate and implement locally through the lens of the Safe System.

Within the sector there is a lack of national direction and leadership to guide practitioners in delivering on Safe System through strategic guidance.

Marketing and promotion of road safety initiatives are also not considered as part of road safety strategies to change the narrative and discourse which can be positively utilised in efforts to achieve goals and objectives.

Lack of support from partners in the context of partnership working reflects the desire amongst road safety stakeholders to improve their road safety partnership capacities, especially regarding collaboration and communication to ensure robust Safe System delivery. Moreover, there is an affinity held by a number of stakeholders towards establishing road safety partnerships in the first instance as a route towards better delivery. This supports the view that road safety partnerships themselves are about more than simply sharing ideas and best practice, but about embedding a road safety culture at the organisational level, which has the Safe System at its heart. Whilst cultural maturity is increasingly seen as a product of better understanding and action within organisational hierarchies – assessing current levels of cultural maturity on the journey towards a Safe System is not a future ambition shared universally (35% of organisations surveyed suggested this was a future ambition).

RECOMMENDATIONS

This exercise has identified areas of common interest for UK road safety stakeholders relating to support for Safe System delivery. Support must be encouraged and actively disseminated across the sector by all partners, including input from the private and third sectors, research bodies, and national directives.

To build Safe System capacity across strategic actions and system 'levers', and enact upon these insights on sectoral capacity, a number of steps are put forward as sector-wide directives:

Leadership – There is a lack of clear, coherent leadership at a national level in respect to our commitment to Safe System as a coordinated, multi-sectoral, inter-disciplinary application of interrelated responses, supported by evidence and evaluation. This will be helped by the creation of the Road Safety Investigation Branch (Department for Transport, 2022) and will hopefully be supported through the forthcoming strategic framework for road safety. However, this leadership is imperative to articulate a vision for a road transport system that is free from death and serious injury, setting challenging targets for delivery and creating an atmosphere of accountability.

Political will – It is necessary to enact change through co-ordinated approaches, ensuring sufficient data, standards, and processes are in place to encourage safe vehicle and safe road use. Facilitating relationship building through opening up avenues of collaboration and advocacy with those outside of traditional road safety sector (such as vehicle manufacturers) requires political will.

Strategy Development – Support is needed for the development of effective subnational strategies and action plans that demonstrate integration with other policy areas and validate how safety delivers desirable co-benefits, articulating the roles and responsibilities of partners.

Coordination – Clarity at the national level needs to flow into higher levels of coordination and strategic alignment between delivery bodies through sub-national partnership arrangements leading to Safe System implementation plans at the local level. The governance arrangements for these partnerships will define specific responsibilities and ensure local accountability for delivery. In a Safe System, reflecting shared responsibility, delivery will also need to embrace private sector partners for their contribution.

Data & Evidence – The establishment of repositories of accessible, searchable, actionable evidence and supporting data to inform decision making at all levels of the sector is a priority.

Innovation, Technology & Investment – whilst evidence on the efficacy of Safe System interventions is still developing, especially around the role of emerging technologies for driver assistance systems, emergency response, and compliance monitoring, an innovation ecosystem is required that invests in trials of new technology, developing a playbook for practitioners as clear evidence emerges. Whilst Safe System actions can legitimately be developed as part of wider transport or health investment, not necessitating ring-fenced funding, the survey results clearly indicate that the deprecated levels of finance (whether capital or revenue) make it problematic to deliver a nationally consistent Safe System approach.

Professional Development – Creation of a robust training and development framework for professionals working in Safe System implementation is required, ensuring that a sector-wide consensus view is shared on the ambitions of, and mechanism for, delivering Safe System. This framework should recognise the value contributed by a wide range of disciplines such as researchers, regulators, economists, educators, auditors, advertisers, technologists, training providers, design engineers, and data scientists.

REFERENCES

- Agilysis. (2021). *GB Road Safety Performance Index: Restoring Momentum, Improving Local Authority Road Safety Performance over the Next Decade*.
- Agilysis and Road Safety GB. (2022). *Developing and Measuring Safety Performance Indicators at Sub-National Level: Roundtables Summary Report*.
- Amos, L., Davies, D., & Fosdick, T. (2015). *Road Safety Since 2010*. London: PACTS and RAC Foundation.
- Department for Transport. (2015). *Working Together to Build a Safer Road System, British Road Safety Statement: Moving Britain Ahead*.
- Department for Transport. (2019). *Road safety statement 2019: a lifetime of road safety*.
- Department for Transport. (2022, June 29). *Government launches country's first ever investigation branch focused on road safety*. Retrieved from Gov.UK:
<https://www.gov.uk/government/news/government-launches-countrys-first-ever-investigation-branch-focused-on-road-safety>
- Department for Transport. (2022). *The second cycling and walking investment strategy (CWIS2)*.
- Fosdick, T. (2019). *Effectiveness of UK road safety behaviour change interventions*. RAC Foundation.
- Fuller, R., & Davis, A. (2018). *How the transport sector works: a guide for health professionals*. Urban Transport Group.
- Green, M., Muir, C., Oxley, J., & Sobhani, A. (2022). Safe System in road safety public policy: A case study from Victoria, Australia. *IATSS Research*, 171-180.
- National Fire Chiefs Council. (2022). *The Extrication in Trauma (EXIT) Project*. Road Safety Trust.
- Nemeckova, M., & Atchison, L. (2019). *REVIVE Project: An overview of post-collision response and emergency care in the EU*. Brussels : European Transport Safety Council.
- Norbury, F. (2020). *Roads Policing and its contribution to road safety*. PACTS.
- PACTS. (2010). *Policy Briefing - A Vision for Road Safety: The role of a road safety strategy and casualty reduction targets from 2010*.
- Safer Roads for All. (2021). *Safer Roads for All*. London.
- Tingvall, C., Michael, J., Larsson, P., Lie, A., Segui-Gomez, M., Wong, S. V., . . . Furas, A. (2020). *Saving Lives Beyond 2020: The Next Steps - Recommendations of the Academic Expert Group for the Third Ministerial Conference on Road Safety*. Stockholm : Swedish Transport Administration.
- WHO. (2021). *Global Plan for the Decade of Action for Road Safety 2021-2030*. Geneva.



agilysis WHITEPAPERS

27 Horse Fair
Banbury
Oxfordshire
OX16 0AE

+44 1295 731811
info@agilysis.co.uk

© 2023