



Vision Zero

The Road Safety Strategy for Kent

Draft consultation document

30 Year vision to 2050

Five year strategy 2021 – 2026

Delivering safer roads, towns and villages in Kent

kent.gov.uk/visionzero



Foreword

Michael Payne, Cabinet Member for Highways & Transport, Kent County Council

Kent County Council continues to ensure that highway safety is one of its top priorities. Indeed, much progress has been made in this regard across Kent Highways in recent years to improve road safety. With an average of forty-five fatalities on our roads each year, however, as well as many hundreds of serious injuries, there remains more to be done. Indeed, to strengthen its efforts, Kent County Council has adopted a target of zero fatalities by 2050.

Some people might say that achieving zero road fatalities is impossible. If they were to see each fatality as a human being, or even a member of their own family, rather than simply just a statistic, would they still not wish to set zero fatalities as the ambition? Surely then zero as the only sensible target to strive towards and this is why, over the next thirty years, we will endeavour to get as close to it as possible. The response to COVID-19 has also shown that, with the right ambition and by working together, a great deal can be achieved.

Vision Zero for Kent will only be possible if all of us - whether we are travelling in Kent, managing a fleet of vehicles, teaching at school or managing the highway network - share a responsibility to reduce road danger, the fear it creates and the casualties that result. Surveys of public opinion show that the residents of Kent support safer roads and safer speeds where they live, together with the enforcement of speed limits.

Kent County Council commits to lead the Vision Zero concept and promote it across the whole of Kent. This includes the ambition for continuous improvement in the way that Kent Highways & Transportation promote road safety and provide improvement schemes, to ensure that Kent County Council does all that it can to make the roads, streets, towns and villages of our wonderful county safer for everyone.

Tim Read, Chair of Kent & Medway Casualty Reduction Partnership & Head of Transportation, Kent County Council

This document outlines a shared approach of the Partnership* to meet Vision Zero objectives. The Partners will all follow the 'Safe Systems Approach', which is designed with the human being at its core, accepting that even the most conscientious person will make a mistake at some point. The goal of Safe Systems is to ensure that these mistakes do not lead to a crash or, if a crash does occur, it is sufficiently controlled to not cause a death or a life-changing injury.

Responsibility for the system is shared by everyone. Policy makers, planners, engineers, vehicle manufacturers, fleet managers, enforcement officers, road safety educators, health agencies, schools, and the media, to name a few, are all accountable for the system's safety. Meanwhile, every road user, whether they drive, cycle or walk, is responsible for complying with the system's rules.

Safe Systems is considered best practice in road safety by the World Health Organisation (WHO) and the Organisation of Economic Cooperation and Development (OECD), and in the UK is supported by Royal Society for the Prevention of Accidents (ROSPA). The approach has been adopted by Highways England and is endorsed by the DfT.

The approach we are taking will require input and support from teams throughout Kent County Council. Most of all it will require the support of Kent's residents to work together towards Vision Zero together.

**Kent & Medway Casualty Reduction Partnership includes Kent County Council, Medway Council, Kent Police, Kent Ambulance Service, Kent Fire & Rescue Service,*

The Vision – 2050

- Zero road fatalities and severe injuries
- Safe Systems is the norm
- Walking and cycling is a safe and easy choice
- Kent at the forefront of road safety innovation

The Strategy - the next five years (2021 - 2026)

- Reduce fatalities, serious injuries, number, and severity of collisions
- Develop an evidence base, including research and trials, monitoring of existing approaches and developing toolkits & programmes
- Improve collaboration between partners & stakeholders
- Embed the Safe Systems approach
- Promote Vision Zero to Kent's public
- Increase levels of safety for walking and cycling



Chapter One – Introduction

1.1 Vision Zero 2050

The ambition of this strategy is to make Kent the best place to live and work in the UK. Through partnership working and an evidence-led approach – combining engineering, education and enforcement – we will make Kent roads, streets, towns and villages feel and be safer for all, with the aspiration of reducing road fatalities to zero by 2050.

We will embed the Safe Systems Approach and engage with partners, stakeholders and Kent's public and promote Vision Zero objectives. All road users will be encouraged to maintain and improve their road safety behaviours, skills, attitudes, and knowledge. The aim being to eliminate driver behaviours that put themselves and others at risk such as distraction, impairment, and inappropriate speed, socially unacceptable.

We will incorporate innovative technologies into the transport network and design our roads and streets to be forgiving in the event of mistakes being made. People should rightly expect to drive, walk and ride safely in well-connected communities with the minimum of congestion and pollution, thereby promoting the health and safety of all.

1.2 Our approach

Safe Systems is an approach to road safety and traffic management that starts with the idea that everyone has the right to be safe on the highway network. This is rooted in the belief that every traffic death reflects a failure in the system, and that none are acceptable. It is a methodology that sees all aspects of the system interacting with each other and looks at network risks to prioritise interventions.

The Safe Systems Approach is a proactive methodology to achieve zero deaths. This approach comprises the following themes:

- Safe roads & streets – designing our highways network to reduce the chances and consequences of collisions.
- Safe speeds – designing roads and enforcing speed limits appropriate to the usage and environment.
- Safe behaviours – road safety education, training, campaigns, engineering, enforcement, and technology to improve the way people use Kent's roads and streets.
- Safe vehicles – ensure the vehicles on the Kent network are as safe as they can be by promoting safer technology for car and goods vehicle fleets.
- Post Collision Response – react as quickly as possible to crashes, study the causes of the most serious collisions, and provide support for the victims of road crashes.

1.3 Community Circle

Proactive community engagement is at the heart of this strategy; if Vision Zero is to succeed it will depend on Kent’s public sharing Kent County Council’s ambition. Community Circle is our approach to help achieve Vision Zero in Kent and it includes:

- **Community Concern** by aligning injury collision data with factors that strengthen the case for intervention, such as concerns about speed, air quality & noise
- **Injury reduction** priority but feeling safe and quality of life are also important
- **Research** and pilot new approaches including average speed camera corridors and other initiatives
- **Common responsibility** for safety including road users, local community & highway authority
- **Localise** campaigns focus on casualty cluster sites
- **Engagement** with community at cluster sites to discuss solutions together



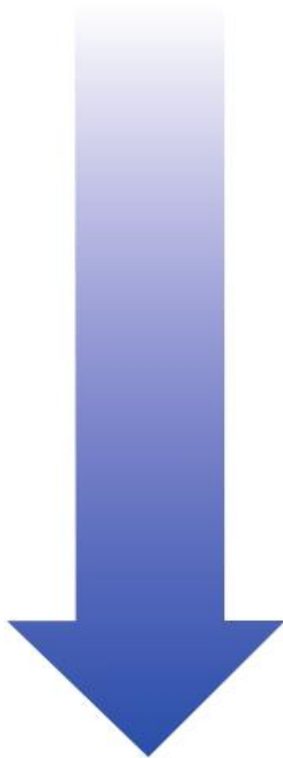
1.4 Shared responsibility

Everyone shares a responsibility for their own and others' safety. As the Highways Authority, our target is to create the safest road network possible and to achieve zero fatalities and the most seriously injured, we work in partnership with Kent Fire and Rescue and Kent Police to achieve this goal.

However, it is essential that those using the road network also understand their responsibilities, and our programme of education, training and publicity aims to reinforce this requirement.

All road users must obey the law and rules of the road, but to eliminate road fatalities we must go further. Those driving the heaviest vehicles should look out for those more vulnerable than themselves, this includes goods vehicle drivers being considerate to people cycling but also people cycling being considerate to those walking. We must aim towards having empathy towards each other to create a more forgiving environment. We should also look out for the very old or young or people with a disability, giving the space and time to help them navigate the road safely.

Responsibility



Disabled people

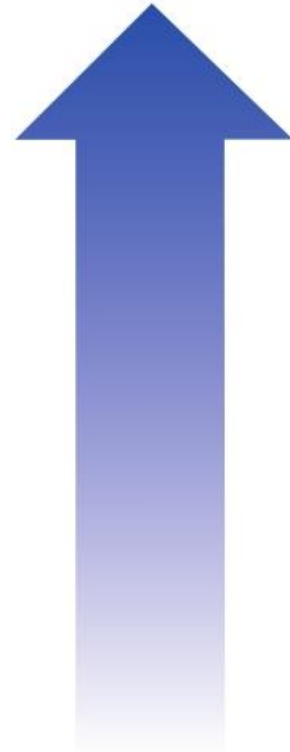
People walking

People cycling

Riding powered two wheelers

Driving cars

Driving vans



Vulnerability

1.5 Links to public health

In Kent, almost two-thirds of adults, over a third of Year 6 (10-11yr old) and a quarter of Reception (4-5yr old) children are overweight or obese. This has negative impacts on mental and physical health as well as economic impacts due to increased absenteeism and low productivity. Building regular walking and cycling into everyday life is one of the most effective ways to address obesity.

There are several ‘safety’ challenges that must be addressed to facilitate higher levels of activity:

- The perceived danger in the environment
- Walkability of the living environment
- Dominance of motor transport
- Risk of harm for walkers and cyclists
- Availability of facilities/infrastructure for unmotorised transport
- Degree to which motorised transport dominates other ways of transport

We will work with Kent County Council’s Public Health team to address these safety barriers to walking and cycling. Regular physical activity improves heart health and mental wellbeing. Just taking more regular physical activity reduces the risk of premature mortality by 30%. A recent study of 16,749 UK patients in hospital with COVID-19 found that obesity was linked to a higher risk of dying (around a 37% increase in risk of death). Figures for Kent show that 20% of adults aged 19 and over were physically inactive and 24.7% of Year R were overweight or obese in 2018/19 compared with average of 22.6% for England. Physical inactivity is responsible for one in six UK deaths (equal to smoking) and is estimated to cost the UK £7.4bn annually (**£176m pa for Kent**).

1.6 Links to walking and cycling

It is Kent County Council’s (KCC) ambition to make walking and cycling an attractive and realistic choice for short journeys. Alongside the health and wellbeing benefits of walking and cycling, we can also see improvements to air quality and benefits to the local economy.

With perceived safety acting as a barrier to the uptake of walking and cycling in Kent, we expect to see a marked increase in walking and cycling levels as Vision Zero develops. A safer highway network, with mutual consideration and cooperation between users, will lead to walking and cycling for short journeys, or as part of longer ones, becoming a more realistic and natural choice. In countries like the Netherlands, with high cycling levels, we see a lower cyclist fatality rate (Pedalling towards safety, European Transport Safety Council, 2012).

It is important to integrate walking and cycling into planning to increase safety. High quality segregated cycle lanes and footpaths as well as improved road crossings and junctions will make roads safer for the most vulnerable users. Where these improvements are not possible, and cycles are sharing road space with cars, we will consider targeted campaigns for raising awareness and in some cases reducing the speed limit. Working with local communities will be imperative in achieving compliance with new limits.

1.7 Costs of road safety to Kent

Each death and life changing injury on Kent's Highways is a personal tragedy, and that is why we have a target of zero deaths. Serious injuries also have very high social costs, 24-hour home care can cost up to £2000 per week. Other costs include clearing the scene, emergency services and resulting congestion.

The Department for Transport estimates the average value of prevention of each reported casualty, which estimates a value for all human and public costs as follows:

Fatal: £1,958,303 Serious: £220,058 Slight: £16,964

In 2019 Kent's combined prevention value of all collisions was over £263m, including over £70m for fatalities and over £143m for serious injuries.

Net Zero meets Vision Zero

KCC has signed up to achieve Net Zero emissions by 2050. It is often the case that low emission vehicles often also have safety features, such as automatic braking, emergency stability control and intelligent speed adaptation.

Initiatives aimed at promoting zero emission vehicles might therefore be aligned with promoting safer vehicles. Cheaper in town parking and residential parking permits for electric cars might be aligned with promotion of in-car safety features. We will therefore seek to collaborate with fleet teams to work towards safer and cleaner vehicle fleets.

Action	Deliverable
1	Promote 'Vision Zero' objectives to stakeholders and the public.
2	Collaborate within Casualty Reduction, Public Health, Active Travel, Fleet, Education and other teams within Kent County Council where road safety can help deliver objectives.

Chapter Two – Data and Risk

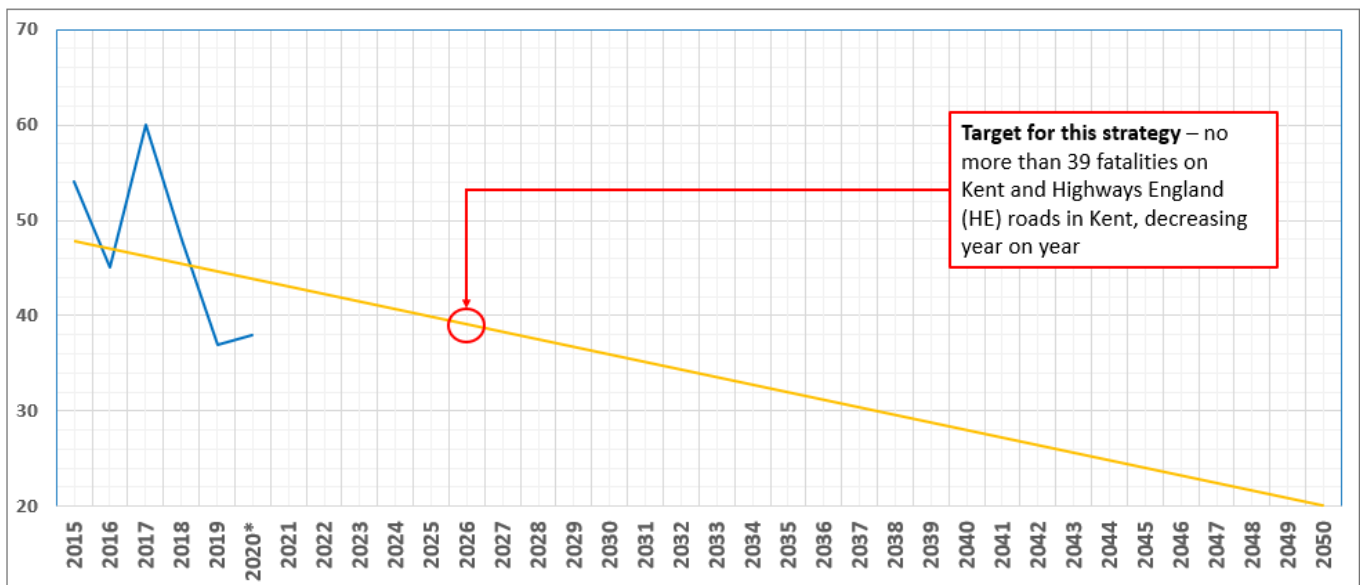
2.1 Introduction

Accurate analysis of data is essential if we are to deliver Vision Zero. KCC will work to understand where the risk is highest on the road network and/or the people who are taking risks. This requires analysis of speeds and volume of traffic and the chance and severity of collisions. We will apply that knowledge to ensure measures are implemented to make the road network safer for everyone. Whether it be re-engineering a road layout, deploying safety cameras or organising an awareness campaign, it is an understanding of the data and analysis of each crash that guides us.

We aim to develop a 'proactive' approach, not only to react to crashes after they happen but also to predict where crashes are likely to occur. By building a picture of where collisions are happening and why they are happening, we can address the problem through a combination of engineering, behaviour change and enforcement.

Targets

Kent Road Fatalities 2015 – 2019 on the Kent Network (includes Highways England managed roads in Kent)



*collision data up to 31st December 2020

The Kent and Highways England networks in Kent see an average of over 45 fatalities a year. The target for this strategy is to follow a linear reduction in fatalities towards zero fatalities in 2050. The trend line to meet zero in 2050 gives a target of no more than 39 fatalities by 2026, the end date for this strategy.

2.2 Risk analysis

Analysing collision data provides a useful insight into where and why collisions occur and who is involved. This analysis of historic crash collision data is, and will continue to be, the main way in which we prioritise where in the county we can introduce engineering and education. Our data team draws up a list of ‘hotspot’ locations of collision clusters within a 50-metre radius for further investigation. This analysis is also used to identify emerging trends in the county to support road safety education and to evaluate the effectiveness of safety cameras and determine new locations for safety cameras.

To enhance our approach, we also need to identify those routes with the highest risk. We can do this through analysis of collision data in relation to the length of the network (crash density) and the volume of traffic (crash rates) to provide a relative and comparable assessment of risk across all routes on the local road network. Looking at speed data alongside these calculations will give a greater insight of the risks posed to road users on the network. A ‘RAG’ rating (Red, Amber or Green) will be applied to these assessments to highlight the areas of greatest risk on the network and provide a robust method for prioritising interventions. We will aim to produce a dashboard for ease of data interpretation.

We will bring together new and existing data to consider the likelihood and resultant severity of a collision. We will also continue to champion the use of iRAP (International Road Assessment Programme) and emerging industry tools to be at the forefront of technological approaches used. We will work with industry organisations such as the Road Safety Foundation and Parliamentary Advisory Council for Transport Safety.

We will research methodologies to align out risk scores with community concerns on speed, air quality and noise, to further strengthen the case for intervention.

Action	Deliverable
3	Formulate a ‘risk score’ for Kent’s Highway Network based on number of personal injury collisions, length of road and traffic volumes.
4	Align this risk score with factors such as community concerns on speed, air quality and noise to strengthen the case for carrying out an intervention.
5	Create a ‘data store platform’ and dashboard for ease of interpretation.

Chapter Three – Safer Roads & Streets

3.1 Engineering – Vision Zero principles

To achieve Vision Zero by 2050, we will need to explore ways of more effectively designing in safety across our road network. The ideal road system is one where the human tolerance for Kinetic Energy (the force released in a crash) is not exceeded.

$$KE = 0.5 * m * v^2 \text{ (Kinetic Energy = } \frac{1}{2} \times \text{Mass} \times \text{Velocity}^2\text{)}$$

We recognize that people sometimes make mistakes. Our aim is to design a forgiving network where making a mistake is not fatal.

3.2 Designing streets for walking & cycling

Half of fatalities on Kent's 30mph road network are people walking or cycling. The fear of road danger is a major barrier to people cycling. A survey in May 2020 found that 12% of Kent residents felt unsafe walking in their local area and over half felt the traffic was too fast for cycling. To resolve the real and perceived danger we will require a programme of engineering combined with education and enforcement.

3.3 Safer Junctions Programme

We will review the design of the junctions with the most crashes to address why collisions happened and make them as safe as possible. More than half of injury collisions in Kent's towns happen at junctions, so we will analyse relative safety of different designs in different contexts as part of a Safer Junctions Programme for Kent.

We will seek to reduce the chance of pulling out in front of fast-moving traffic, with measures such as improving visibility and we will reduce the severity of collisions through measures aimed at slowing down traffic at crash hotspots.

The programme will initially involve research, with the aim of providing a prioritisation process, outlining different design options and costs.

3.4 Safer rural roads and villages

57% of fatal collisions in Kent occur in rural areas, and 41% on single carriageway rural roads with a speed limit of 50mph or above. Most of these collisions are not at a junction, suggesting inappropriate speed is a factor. We are therefore proposing a research programme into the relative merits of reducing the national speed limit on single carriageway roads. Both impacts on casualties and journey times, as well as local community and business feedback. Changes to national speed limit would be made by central government, so should our research show net benefits and public support, we would present our findings to the Department for Transport.

Kent's villages (rural roads with a 30 or 40mph limit) witness 15% of Kent's fatal collisions and deserve special attention because they are home to a high proportion of our rural population. Solutions to road dangers on the rural network are not easy; we are therefore proposing a programme of research and pilots to identify appropriate treatments to address specific routes.

Some of the common issues we must seek to address include:

- [Prevention of head on collisions](#)

We will look at measures to reduce the chance of vehicles crossing the centre line. Central reservations are not applicable on much of Kent's network so innovative use of road markings and other measures to warn road users, especially powered two-wheeler riders which are disproportionately involved in fatal rural collisions, will be researched to reduce and prevent head on collisions.

- [Prevention of collision with roadside objects](#)

We will develop a 'forgiving roads' strategy where time and space are factored in to reduce the risk of an out-of-control vehicle making impact with roadside objects before coming to a halt. Consideration will however be given to the protection of the natural habitat as well as the safety imperatives.

- [Vulnerable road users](#)

We will implement a programme to reduce collisions involving vulnerable road users. Powered two wheelers are over-represented in rural road fatal and serious collisions. We will work with powered two-wheeler industry bodies to implement a policy to reduce collisions involving riders.

Pedestrians and cyclists are also involved in injury on rural roads. We will research common locations and contributory factors and pilot schemes to reduce this toll.

About 25% of rural collisions occurred on 30mph roads, which are in village settlements. We will develop a programme to improve the safety of Kent's villages.

3.5 Safer powered two wheelers (Motorbikes, mopeds and powered scooters)

In the past five years motorcycle and moped riders (powered two wheelers) represented 25% of fatal collisions and 23% of Serious Collisions on Kent's Highway network. This far exceeds the percentage of people travelling by this mode, and to meet Vision Zero objectives we must address the issues that lead to death or serious injury.

To address the issue of powered two-wheeler collisions is more than just an engineering issue, so it will require cross working between engineering, enforcement and education. We will establish a working group that includes associations representing riders to work together towards solutions.

New powered two-wheeler categories, such as e-scooters currently being trialled in Kent, will also be monitored for their safety.

3.6 Safer walking and cycling

In 2020 the Department for Transport published [Gear Change – a bold vision for cycling and walking](#). This sets out an ambition to increase levels of physical activity in everyday life. Engineering streets, towns and villages to be and feel safe will play a major role. National and local surveys show the majority of people would like to see more cycle lanes in their area and but feel traffic is too fast to cycle safely on the road.

In addition to the Safer Junctions Programme, we will also establish a Safer Walking and Cycling programme to identify where the demand for more walking and cycling is greatest and what interventions are required to support this safely. We will follow the [Cycle Infrastructure Design Guidance](#) LTN 1/20 for cycling schemes and national guidance such as [Manual for Streets](#) for walking schemes.

3.7 Review the cluster site approach

Kent County Council follows the cluster site approach to identifying where to intervene with road safety engineering using the following criteria:

Urban area (towns) – Six or more Personal Injury Collisions within a 50-metre diameter

Rural area – Four or more Personal Injury Collisions within a 50-metre diameter

This proven approach identifies around 120 sites for review each year. In order to be able to identify as many opportunities for safety improvements as possible we are intending to research new methodologies for scheme identification. This could include:

- Expanding the current process to include damage only and other incident data
- Utilising a route-based approach by analysing collision rates along routes as well as at clustered locations
- Combining and analysing a range of data to develop an understanding as to the inherent risks on the highway network.

We will investigate the right criteria for Kent and consider weighting to reflect severity of collisions and the vulnerability of the road users involved.

3.8 Safer children and young people

The safety of children is paramount to this strategy. We want our children to travel as safely and actively as possible.

All children in Kent are offered cycle training through the Bikeability scheme. Our education team encourages parents to teach children how to cross the road. We provide walking buses and our School Crossing Patrols support children to get to school safely. We want to go further and work to develop a programme to maintain the safety of children:

- Forge partnerships with schools to work together to make the journey to school safer for walking and cycling
- Safe Routes to School – identify barriers to walking or cycling to school with a view to improving safe access
- School Streets – pilot school streets where the street outside a school is closed to traffic during pick up and drop off times.
- Road Safety Education and Training – We will continue to deliver education and training targeted at children, parents and carers, while also influencing drivers around schools to watch out and slow down.

Safer Streets Action Plan

Action	Deliverable
6	Review criteria for cluster sites where there have been high incidences of collisions and fatalities. Research the viability of a route-based approach.
7	Develop a Safer Junctions Programme for Kent's urban area.
8	Develop a Safe Rural Network Programme (roads & villages).
9	Develop a Safer Powered Two-wheeler Programme.
10	Develop a Safer Walking & Cycling Programme.
11	Develop a Safer Young People Programme, e.g. school streets, safe routes to school.

3.9 Highways asset management

A change in processes will result in better co-ordination of highways maintenance and management with road safety and walking and cycling objectives. There are over 300 resurfacing schemes a year and incorporating warning lines at casualty hotspots as well as advisory cycle lanes would be relatively inexpensive.

Outcomes we hope to achieve:

- Reactive input to highways schemes
- Planned Work – identify where road safety issues may raise priority for resurfacing
- Improved training – allow all teams to understand opportunities and their roles

We will review all Highways Assets to consider where safety can be improved.

Action	Deliverable
12	Establish processes so Highways teams can better incorporate road safety and active measures into maintenance programmes at low cost.

3.10 Combining hard and soft factor interventions

Experience shows that ‘soft’ behavioural interventions, such as campaigns, are most effective when combined with ‘hard’ measures, such as new infrastructure changes. Likewise, engineering schemes tend to have more public support and impact where accompanied by a public information and engagement campaign.

We will therefore engage with communities near collision cluster sites using campaigns and behaviour change measures to reinforce safer behaviours. This will mean explaining to stakeholders what road safety measures we are introducing and why. The Road Safety Team will work with the Schemes Engineering Team to engage with the public and stakeholders to ensure all schemes are supported, intended objectives understood and road users make use of them as safely as possible.

Action	Deliverable
13	Engagement with communities at cluster sites where there are concentrations of traffic accidents and fatalities to improve compliance and support for Vision Zero.

Chapter Four - Safer Speed

Appropriate Speed is at the heart of the Vision Zero approach.

Our objective is to create a network where fewer mistakes occur, and to ensure that mistakes will not lead to a death. Improving compliance to speed limits, appropriate speeds for a location and in some instances reducing speed limits will be central to achieving this objective.

4.1 Engineering

We will continue to improve compliance with speed limits by changing the appearance of our streets to encourage lower speeds, particularly where there is a history of collisions. We will help motorists to understand the appropriate speeds for the environment and continue to use signs, lines, vehicle activated signs, variable messaging signs and other visual cues to slow down traffic approaching collision hotspots.

Re-engineering all of Kent's Highways to help vehicles keep to safer speeds huge task, so collaboration with Education and Enforcement to support the process is essential.

1.2 Enforcement

Excessive speed often results in the most serious injuries, but habitual speeders tend to only respond to the 'fear of getting caught'.

A recent survey shows that 54% of people in Kent support the use of road safety cameras to enforce speed limits. The most popular of these are average speed cameras.

Kent County Council works in the Kent and Medway Safety Camera Partnership with Medway, Kent Police and Highways England for the deployment of safety camera vans, fixed speed, average speed and red-light cameras. We will work with this group to ensure cameras are deployed in the most appropriate sites. We will seek ways to allow expansion of the deployment of speed cameras

The decision on where to deploy cameras is based on Department for Transport (DfT) Circular 01/2007, which states, "whilst the primary objective for camera deployment is to reduce KSIs at known collision locations, cameras can also be beneficial where there is community concern." We will continue to prioritise collision hotspots but also seek to be proactive to support Kent's residents tackle inappropriate speed with cameras, and mobile van cameras that can be quickly deployed.

Average Speed:

As regards Average Speed camera deployment, DfT Circular 01/2007 states, "average speed camera enforcement has the effect of calming the speed over a longer distance and can be used at sites where a significant number of collisions are scattered along a length of road." We will explore the opportunity to pilot a route-based approach for average speed cameras, for example between the entry to and exit from a village. A wide range of data will be analysed including number of injuries, reported near misses and the 85% percentile (the speed at which 85% of people drive, which tends to be the highest safest speed for that road)

Community Speed Watch

Enforcement of speed limits also includes community speed watch, where members of the public go out with police officers to measure speeds. We will support this approach.

Roads Policing

We will continue to work closely with Kent Police through the Kent & Medway Casualty Reduction Partnership and Safety Camera Partnership to share data on where to focus mobile camera vans and collaborate on promoting enforcement campaigns to amplify their effectiveness.

4.3 Implementing 20mph limits

A pedestrian is five times more likely to die if hit at 30mph rather than 20mph. Kent has recently implemented 20mph town wide limit pilots in Faversham and Tonbridge.

A recent survey shows that almost 70% of residents in Kent support a 20mph limit where they live. However, the same survey shows that a similar percentage of residents think the limit is ineffective because of non-compliance. Effective compliance with speed limits will require community support as well as enforcement, although Intelligent Speed Assistance will be fitted on all new cars from 2022, which will help automate compliance.

The first trial of a 20mph limit is underway across almost all roads in Faversham and Tonbridge in 2020 as part of the COVID-19 Emergency Active Travel Fund. We will study the impacts of this scheme to understand for the potential for implementation in other towns in Kent.

Kent County Council will subsequently consider proposals from Town, District and Parish councils to introduce lower speed limits in urban areas and villages where there is an identified demand for safer travel for vulnerable road users.

4.4 Rural road limits

The 60mph rural road network sees 45% of all fatal collisions in Kent. This is greatly disproportionate compared to the volume of traffic. A Yougov survey showed a majority of rural residents in Kent support slower rural speed limits. However, impacts on business and travel times must be considered. We therefore propose to research the impacts of lowering rural speed limits on safety, journey times and business. This research will look at roads with the national speed limit, which is currently 60mph.

To replace every sign to 40mph or 50mph would be both a huge cost and, in many circumstances, encourage faster traffic. Therefore, should our research show a net-benefit Kent County Council would present the findings to central government, calling for a national change to the default national speed limit.

4.5 Visible enforcement

The visible presence of police officers on the beat, either on foot or in vehicles, helps to control speed. As the police cannot be everywhere all the time, we will work in partnership sharing collision data – identifying known locations, problems, times and road users – to target high-risk areas.

Safer Speed Action Plan

Action	Deliverables
14	Research potential benefits for speed camera criteria to include community demand, aim to pilot average speed camera corridor for evaluation.
15	Monitor the pilot 20mph speed limit towns (Faversham & Tonbridge) – analyse impacts and success of measures to improve compliance.
16	Research impacts of reducing the 60mph speed limit. Engage with rural communities, survey attitudes, evaluate impact on collisions and journey times. Findings to be presented to central Government to review potential of lowering national speed limit.
17	Research and pilot measures to slow traffic around schools where traffic speed is a reported problem.
18	Work with Kent Police to enhance the 'visible presence' of enforcement at crash hotspots.
19	Support Kent Police enforcement activities with campaigns that target the highest risk areas and motorists

Chapter Five - Safer Behaviours

5.1 Vision Zero promotion

Communicating effectively to advance road safety is not new, but Vision Zero brings greater urgency and critical thinking to this need. It also brings together a wider and more diverse range of stakeholders. The language of Vision Zero itself -- with the goal to eliminate all traffic fatalities - communicates a more ambitious approach and rests on the basic understanding that these serious losses are preventable. A key function of communications is education, sharing information that will not only raise awareness about Vision Zero but spur individuals and institutions to change their behaviour. It is essential to create a strong brand for Vision Zero, to provide consistency in all messaging.

5.2 Culture change

Crafting an effective communications campaign that leads to real behaviour change is complicated. We need to gain a deep understanding of what steps people and communities take in shifting their perceptions — and actions. Through our current work, we have built a foundation of organisational contacts throughout Kent, our first step will be to expand this network through an engagement programme.

The San Francisco Municipal Transportation Agency which launched Vision Zero in 2014 found it helpful to understand the Spectrum of Prevention (see graphic below), a framework developed by the Prevention Institute. It emphasizes that the culture of community norms and behaviours is not driven by individual decisions alone. It is the result of a web of influences from policy to organizational practices to community education.



We already have a very good understanding of behaviour change campaigns in Kent, we will harness this knowledge to develop an effective strategy that aims to embed an awareness of Vision Zero across the county and move towards actions that re-enforce safer behaviours, such as training. We will develop both a 30-year behavioural plan which aims to change the culture of road use in the County, alongside a 5-year plan with the aim of brand awareness and organisational engagement.

5.3 Motorised training

In Kent, mini-bus drivers must receive training before they are allowed to transport school children. The HASTE (Hazard Awareness, Space, Time, Eco driving) training course is open to all drivers that hold a full driving licence. The effect of introducing this course was to reduce the number of crashes by more than two thirds in the first five years. We therefore recommend the expansion of training courses to a wider range of KCC and other fleet drivers.

5.4 Non-motorised training

Kent County Council's Small Steps scheme gives children practical roadside instruction by trained volunteer instructors. Also, thousands of children in Kent receive Bikeability training every year. This helps children develop a set of invaluable skills to help them stay safe when cycling on roads.

5.5 Enforcement

Research has shown that 15% of drivers are habitual speeders. They don't tend to react well to road safety education. For this group enforcement is essential as it is only the fear of getting caught that will change their behaviour.

Working through the K&M Casualty Reduction Partnership, we will collaborate with Kent Police to develop Education, training and publicity (ETP) interventions to support enforcement activities. We will enhance the impacts of enforcement through supporting campaigns which focus on the Fatal Four – speed, distraction, drink & drugs and seat belt use.

5.6 Age group focus

Targeting messages according to age group is essential. We start from early years with pedestrian training and continue throughout the age range. This is a 'Lifelong learning' approach.

Kent experiences particular issues with Young & Mature Drivers, and we will continue to research the best interventions to support the safe mobility of these groups.

Safer Behaviours Action Plan

Action	Deliverables
20	Create a 30-year communications plan to increase support for Vision Zero objectives.
21	Produce a 5-year behaviour change delivery plan aligned with walking, cycling and public health.
22	Produce a promotional toolkit for use when new engineering schemes are introduced.
23	Develop a forum for those who have been affected by crashes.
24	Support teenagers and older people with training and education designed to maintain safe mobility. Include alternatives to driving, as well as driver training.
25	Research and pilot the behavioural impacts of new on-street infrastructure including variable message signage, flashing light studs, linage etc.

Chapter Six - Safer Vehicles

6.1 Kent driver policy

We will develop a driver policy for all of Kent's drivers, from those who use their own vehicles through to those who drive Kent fleet vehicles

This policy will detail the range of training opportunities we will offer including online training that can be accessed by all, more detailed HASTE courses for those who drive for KCC and additional in-car coaching for those who need their driving behaviour and skills to be improved based on telematics monitoring, checking the data from in-vehicle tracking.

We will consult with our fleet managers, telematics account managers and insurance companies with the objective of improving safety and lowering insurance premiums. We will seek to work within the Highways England Programme, Driving for Better Business.

6.2 New technology research and engagement

Vehicle Technology is developing at a fast pace, and we must ensure we are at the forefront of using the changes to help enhance safety.

Levels of automation already exist in vehicles and this, too, could have a positive impact on road safety. It is estimated that 95% of road collisions involve human error, so the shift towards driverless vehicles could be significant in reaching Vision Zero. But we need to understand how road safety remains a central concern as technology evolves in stages towards full automation.

We will research all new technology and engage with key industry players to better understand what is happening and how we can make use of it to inform safety measures. We will liaise with Kent Commercial Services (KCS) to advise on vehicle choices when our vehicles are up for renewal or replacement, to ensure we are at the forefront of vehicle safety and technology in Kent.

Demonstration project: A2M2 Connected Corridor

Kent County Council is working in partnership with Highways England, Department for Transport and TfL to pilot a connected road corridor on a section of road between Dover and London.

Trial vehicles will be fitted with onboard technology that will link communication between the car and the roadside wirelessly. This will relay information to the vehicle relating to road works, road conditions, temporary speed limits and the time remaining before a traffic light turns to green. The information could then be used by the vehicle to vary speed.

6.3 Safer Freight

Goods Vehicles are up to seven times more likely to be involved in fatal collisions than cars, proportional to their numbers on the road. The Fleet Operator Recognition Scheme (FORS) accreditation was established in 2008 to improve the safety of HGVs. The scheme measures fleet performance and aims to drive up standards across areas such as fuel efficiency, carbon emissions, NOx (nitrogen oxides) and road safety (in particular vulnerable road users). The scheme audits the safety features on each vehicle in a fleet and the training and licences of the drivers.

The Construction Logistics and Community Safety (CLOCS) standard is awarded to construction sites that only work with FORS accredited members, thus giving financial incentive for joining FORS. CLOCS also stipulates logistics plans for vehicles servicing sites, which could help alleviate community concern issues around heavy goods traffic on rural villages and inappropriate rural roads.

As of 2020, there are 508 FORS members in Kent. We will seek to make FORS (or equivalent) a requirement for KCC fleet vehicles and to make it a requirement for those fleets working on KCC projects. We will work with construction sites in Kent, especially projects where Kent County Council is a partner to encourage adoption of the CLOCS accreditation. We will research the opportunity to include CLOCS and FORS within planning requirements for construction projects.

6.4 Telematics and vehicle tracking

Telematics systems gather data including vehicle location, driver behaviour, engine diagnostics and vehicle activity. They will allow us to detect unsafe practices and address them quickly. We can also use it for location tracking to provide emergency assistance directly to the exact site if needed. Monitoring data from the telematics systems such as speeding, harsh cornering and braking will enable us to identify drivers who might require additional training or coaching. We will also reward those who are consistently demonstrating excellent driving behaviours.

KCC's Highways, Transportation and Waste Teams are currently using the Navman telematics system in all fleet vehicles. We develop a rewards and training programme based on the data and monitor its success.

We will also seek to promote the use of telematics to other fleet operators and seek to get data from these systems to help us identify roads in Kent where harsh braking, cornering, and speeding are regularly occurring. This information will be compared against data from additional sources to help make key decisions regarding safer streets.

6.5 Safer vehicle design

The safety of vehicle design has improved considerably over the past 20 years. The Euro NCAP (New Car Assessment Programme) star rating system helps advise consumers on the relative safety of cars. Thatcham Research tests the relative safety of UK models and works closely with insurance companies to set premiums based on this research.

Throughout the period of this strategy, we will promote safer vehicle technology and the Euro NCAP rating systems to help the Kent public choose the safest car possible. As half of all new cars are bought by fleets, we will work with partners at Driving for Better Business to encourage safer fleet vehicles.

Examples of recently developed in-car safety features:

Electronic stability control

Since 2012 all new vehicles must have Electronic Stability Control (ESC). This works to steer a car while braking, to avoid spinning out of control. There has been an observed 25% - 33% reduction in single vehicle collisions where ESC has been fitted

Automatic sensing to detect imminent collisions

Autonomous emergency braking (AEB) is included in Euro NCAP 2014 and from 2016 it includes sensitivity to pedestrians, then from 2018 sensitivity to cyclists. AEB is estimated as providing a 38% reduction in front to rear passenger car collisions.

Passive Safety test

Euro NCAP has introduced a passive safety test to estimate relative safety of different vehicles should they hit a pedestrian. Some manufacturers have introduced pedestrian air bag technology.

Whiplash

Studies show that seat design has a significant impact on reducing whiplash.

Intelligent Speed Assistance

ISA helps drivers keep to the speed limit and is fitted as standard on models such as the new Ford Focus. It works by resistance on the accelerator if drivers drive above the limit. It will be fitted on all new cars by 2022.

6.6 Safer vans

The number of vans is growing. As home deliveries rise, we are likely to see increasing numbers of collisions involving vans as they drive in residential areas where many people walk and cycle. This is a growing issue across the UK, so we will work in partnership with national organisations to support national initiatives which support safer deliveries.

Safer Vehicles Action Plan

Action	Deliverables
26	Develop driver policy including driver assessment for all Kent County Council drivers.
27	Research likely impact of ISA and other new driving technologies on road safety and driver behaviours.
28	Implement Fleet Operator Recognition Scheme (FORS) or equivalent which stipulates minimum driver training and vehicle safety features for goods vehicles for the KCC's fleet & Research opportunity for (FORS) or equivalent for all new contracts where deliveries are made to KCC.
29	Safer construction: research opportunities to implement Construction Logistics and Community Safety (CLOCS) standards, or equivalent, that stipulates construction logistics plans and minimum vehicle safety standards for KCC led construction projects.
30	Telematics: develop a rewards and training programme, using telematics to monitor the council's Highways, Transport & Waste drivers & research opportunities to extend vehicle telematics to other KCC drivers and teams.
31	Work with Highways England's Driving for Better Business to promote the safest vehicles and safest driving techniques to all fleet managers in Kent & promote Euro NCAP (New Car Assessment Programme) safer car information to fleet managers and the Kent public.

Chapter Seven – Collision Response

7.1 Maintain fast collision reaction times

Getting to a collision quickly can be the difference between life and death. We will continue to work through the Kent and Medway Casualty Reduction Partnership (KMCRP) to support a swift collision response.

7.2 Post collision response

When a fatality or a serious injury occurs, we follow processes to review the causes through the Kent and Medway Casualty Reduction Partnership. We will continue to work in partnership to audit all collision sites and contributory factors to implement the mitigation measures where required.

7.3 Support for victims

It is essential that road deaths in Kent are not seen as a statistic but as a personal tragedy. All partners should work with bereaved families to help them through the process and do everything possible to ensure their deaths will help inform a safer future. We will engage with organisations such as Brake / Road Peace on the best approaches to take.

Action	Deliverables
32	Work with the CRP Casualty Reduction Partnership (Kent Police, Ambulance, Fire & Rescue Services) to support swift post-collision response process.
33	Work with CRP partners to improve our post KSI (Killed or Serious Injury) auditing processes.
34	Work with partners to ensure victims of road collisions get support.

Chapter Eight – Governance & Monitoring

8.1 Launch event & Steering Group

To achieve the ambition of Vision Zero in Kent will take decades. We will aim pilot new approaches and technologies. We must put in place monitoring and evaluation to guide us.

Although surveys suggest broad support for safer roads and streets, this will not always translate on to specific schemes. It is therefore essential that we seek the best advice and have the right political and officer governance, together with public engagement in place to deliver schemes, some of which may face opposition.

A Vision Zero launch event is proposed, from which it is envisioned an expert steering group can be formed to advise on delivery of this strategy.

The Advisory Group would meet in the form of an annual event, such as conference, seminar or webinar to discuss national and international policy and practice on delivery of Vision Zero.

8.2 Key Performance Indicators for this Plan

- Reduction in Fatalities – follows the trajectory to zero in 2050
- Reduction in the most serious injuries – follows the same trajectory
- Engagement with the public on road safety – shift of perceptions
- Increasing levels of safety for walking and cycling

8.3 Annual Review of KPIs

This KPIs will be reported to the Highways and Transportation Director. We will review all the actions annually.

8.4 Collaboration

Kent County Council will engage with stakeholders to adopt a Safe Systems approach. We will research, review and share. We will identify best practice, not just in the Kent but also, regionally, nationally and globally. We will also work to identify where gaps are and where interventions can be improved to ensure we are all delivering to the best of our ability towards the same aspiration of Vision Zero.

Kent County Council will take the lead as local highway authority as it holds the Statutory Duty for road safety, especially for education and engineering functions. It is clear that KCC cannot achieve Vision Zero alone and we will need to work with other agencies, not least the enforcement of road traffic law by the police.

As recognised by the Audit Commission in 2008, the benefits of collaboration between the Statutory Duty holders and other stakeholders ensures not only the effective use of public money but also increased access to wider experience and resources. In order to properly benefit from a coordinated and collaborative approach, informed leadership is required.

K&M Casualty Reduction Partnership

The Casualty Reduction Partnership was established as a collaboration between Kent Police, Kent Fire and Rescue Service, HE, Medway and KCC. It is proposed that this group should continue to provide a supervisory role on the delivery of this strategy, supporting collaboration and advising on programmes. A website should be developed for this group to help promote its work to the public.

K&M Safer Camera Partnership – Safer Speed Partnership

In conjunction with the Casualty Reduction Partnership, the Safer Camera Partnership focuses on camera enforcement, but has an expanded remit to include delivery of Safer Speed and include input from traffic engineers and community road watch. It is proposed that stronger links are established between the two partnerships, and both are promoted from one single website.

Governance & Monitoring Action Plan

Action	Deliverables
35	Organise a national, high-profile launch event and form an expert steering group to advise on delivery and best practice.
36	Annual reviews to update action plans and monitor KPIs
37	Work within the Casualty Reduction Partnership (CRP) framework.
38	Expand the remit of the Safer Camera Partnership (KMSCP) to include community speed watch. KMSCP will report to the Casualty Reduction Partnership.

National / Regional Safe Systems Strategies

National Police Chiefs Council - Policing our roads Together – 2018 - 2021

The ‘fatal 4’ offences will be prioritised in all that we do and our own objectives for policing will be organised under each of the following strands:

Safe Roads; Safe Speeds; Safe Vehicles; Safe Road Users and an additional 5th strand of Post Crash Response.

<http://library.college.police.uk/docs/appref/Policing-our-Roads-Together-partners-copy.pdf>

Transport for the South East – Draft Strategy moots Vision Zero by 2050

A network that promotes walking, cycling and active lifestyles to improve our health and wellbeing.

A safely planned, delivered and operated transport network with no fatalities or serious injuries among transport users, workforce or the wider public.

<https://transportforthesoutheast.org.uk/wp-content/uploads/2019/10/TfSE-Draft-Transport-Strategy-v24.0.pdf>

DfT Road Safety Statement 2019 – A Lifetime of Road Safety

“We will conduct a qualitative process evaluation of the Safer Roads Fund which will inform future targeted funding for roads investment and other interventions to encourage use of the safe systems approach.”

Conclusion: Future road safety must look beyond road users and interventions which support changes in behaviour. Future investment in vehicle technology, infrastructure, and our evidence base are all part of the building blocks of future success.

Highways England Delivery Plan 2015-2020

“Working towards the goal of bringing the number of people killed or injured on the network as close as possible to zero by 2040.”

Related Strategies:

Vision Zero Action Plan – London, TfL

Vision Zero and the Safe System – New Zealand, Ministry of Transport

Vision Zero on the move – Swedish Transport Administration

Related KCC Transport Strategies:

LTP – Growth without Gridlock - “Walking and cycling can easily be incorporated into our busy lives. Health and road safety are interlinked, and reducing casualties caused by vehicular traffic is a constant priority.”

Growth and Infrastructure Framework (GIF) - £10bn for transport in Kent to accommodate 178,600

additional homes (24% growth), 396,300 additional people 2011-2031 (23% growth), and 170,300 additional jobs. To provide growth without negative impacts on road safety will require significant work.

Action Plan

Strategic actions

1. Promote 'Vision Zero' objectives to stakeholders and the public.
2. Collaborate within Casualty Reduction, Public Health, Active Travel, Fleet, Education and other teams within Kent County Council where road safety can help deliver objectives.

Data and risk actions

3. Formulate a 'risk score' for Kent's Highway Network based on number of personal injury collisions, length of road and traffic volumes.
4. Align this risk score with factors such as community concerns on speed, air quality and noise to strengthen the case for carrying out an intervention.
5. Create a 'data store platform', a dashboard for ease of interpretation.

Safer roads and streets actions

6. Review criteria for cluster sites of 50m radius where there have been high incidences of collisions and fatalities. Research the viability of a route-based approach.
7. Develop a Safer Junctions programme for Kent's urban area.
8. Develop a Safe Rural Network programme (roads & villages).
9. Develop a Safer Powered Two-Wheeler programme.
10. Develop a Safer walking & cycling programme.
11. Develop a Safer Young People programme – e.g. School Streets, Safe Routes to school.

Highways and asset management action

12. Establish processes so Highways teams can better incorporate road safety and active measures into maintenance programmes at low cost.

Combining hard and soft factor intervention action

13. Engagement with communities at cluster sites – where there are concentrations of traffic accidents and fatalities - to improve compliance and support for Vision Zero.

Safer speeds actions

14. Research potential benefits for speed camera criteria to include community demand, aim to pilot average speed camera corridor for evaluation.
15. Monitor the pilot 20mph speed limit towns (Faversham & Tonbridge) – analyse impacts and success of measures to improve compliance.
16. Research impacts of reducing the 60mph speed limit. Engage with rural communities, survey attitudes, evaluate impact on collisions and journey times. Findings to be presented to central government to review potential of lowering national speed limit.
17. Research and pilot measures to slow traffic around schools where traffic speed is a reported problem.
18. Work with Kent Police to enhance the ‘visible presence’ of enforcement at crash hotspots.
19. Support Kent Police enforcement activities with campaigns that target the highest risk motorists.

Safer behaviours actions

20. Create a strategic 30-year plan to increase support for Vision Zero objectives.
21. Produce a 5-year behaviour change delivery plan aligned with walking, cycling and public health.
22. Produce a promotional toolkit for use when new engineering schemes are introduced.
23. Develop a forum for those who have been affected by crashes.
24. Support teenagers and older people with training and education designed to maintain safe mobility. Include alternatives to driving, as well as driver training.
25. Research and pilot the behavioural impacts of new on-street infrastructure including variable message signage, flashing light studs, linage etc.

Safer vehicles actions

26. Develop Driver Policy including driver assessments for all Kent County Council drivers.
27. Research likely impact of ISA and other new driving technologies on road safety and driver behaviours.
28. Implement Fleet Operator Recognition Scheme (FORS) or equivalent which stipulates minimum driver training and vehicle safety features for goods vehicles for the KCC’s fleet & Research opportunity for (FORS) or equivalent for all new contracts where deliveries are made to KCC.
29. Safer construction: research opportunities to implement Construction Logistics and Community Safety (CLOCS) or equivalent scheme that stipulates construction logistics plans and minimum vehicle safety standards for KCC led construction projects
30. Research opportunity for implementing Fleet Operator Recognition Scheme (FORS) for all new contracts where deliveries are made to KCC.

30. Telematics: develop a rewards and training programme, using telematics to monitor the council's Highways, Transport & Waste drivers & research opportunities to extend vehicle telematics to other KCC drivers and teams.
31. Work with Highways England's Driving for Better Business to promote the safest vehicles and safest driving techniques to all fleet managers in Kent & promote Euro NCAP (New Car Assessment Programme) safer car information to fleet managers and the Kent public.

Collision response

32. Work with the Casualty Reduction Partnership (Kent Police, Fire & Ambulance Services) to develop a swifter post-collision response process.
33. Work with partners to improve our post KSI (killed or seriously injured) auditing process by assessing behaviours, enforcement, and road layout to prevent further casualties.
34. Work with partners to ensure victims of road collisions get support.

Governance and monitoring actions

35. Organise a national, high-profile launch event and form an expert steering group to advise on delivery and best practice.
36. Annual reviews to update action plans and monitor KPIs.
37. Work within the Casualty Reduction Partnership (CRP) framework.
38. Expand the remit of the Safer Camera Partnership (include community road watch) and report to the Casualty Reduction Partnership.



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