Sub-national target setting and monitoring in the United Kingdom
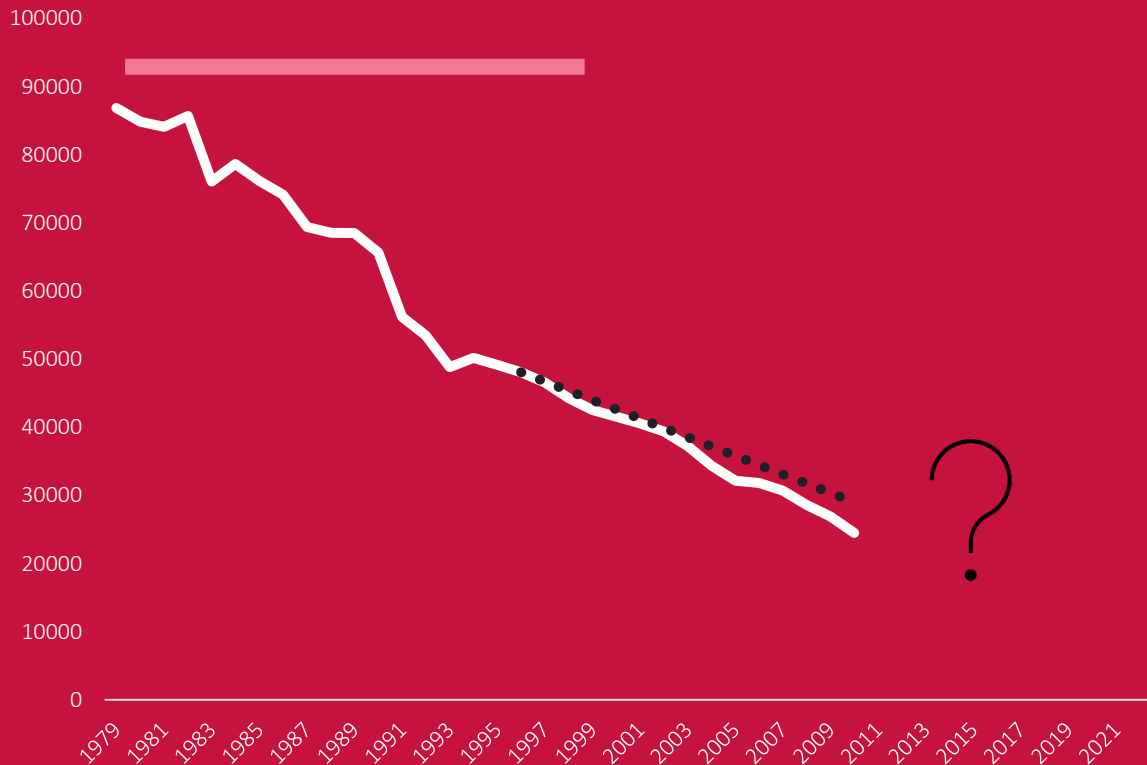
Richard Owen & Tanya Fosdick

Road Safety **GB**
analysts network

Department for Transport

agilysis

UK Context

Chart showing casualties from 1979 to 2021, with values on the y-axis from 0 to 100000.

Setting targets communicates the importance of road safety

Targets motivate stakeholders and increases accountability for achieving results

Targets convey the message that the Government is serious about reducing road casualties

Sub-national targets widen the sense of ownership by creating greater accountability, establishing more partnerships and generating more action

Targets raise media and public awareness and motivate politicians to support policy changes and to provide resources

Towards Zero Foundation, 2020

Sub-national Targets

Transport Scotland have kept targets

https://www.transport.gov.scot/media/49893/scotlands-road-safety-framework-to-2030.pdf

Comprehensive Road Safety Framework linking to other policy areas

- Health
- Sustainability
- Air quality
- Inequality

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Our Targets

Interim Targets to 2030
50% reduction in people killed
50% reduction in people seriously injured
60% reduction in children (aged <16) killed
60% reduction in children (aged <16) seriously injured

Intermediate Outcome Targets
- 40% reduction in pedestrians killed or seriously injured
- 20% reduction in cyclists killed or seriously injured
- 30% reduction in motorcyclists killed or seriously injured
- 20% reduction in road users aged 70 and over killed or seriously injured
- 70% reduction in road users aged between 17 to 25 killed or seriously injured

Intermediate Measures
- Casualty rate per 100 million vehicle kilometers for cyclists killed and seriously injured
- Casualty rate per thousand population for pedestrians killed and seriously injured

- The casualty rate for the most deprived 10% SIMD areas is reduced to equal to the least deprived 10% SIMD areas.

Sub-national Targets

National Highways (Strategic roads in England)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1014128/Road_Safety_Performance_-_Update.PDF
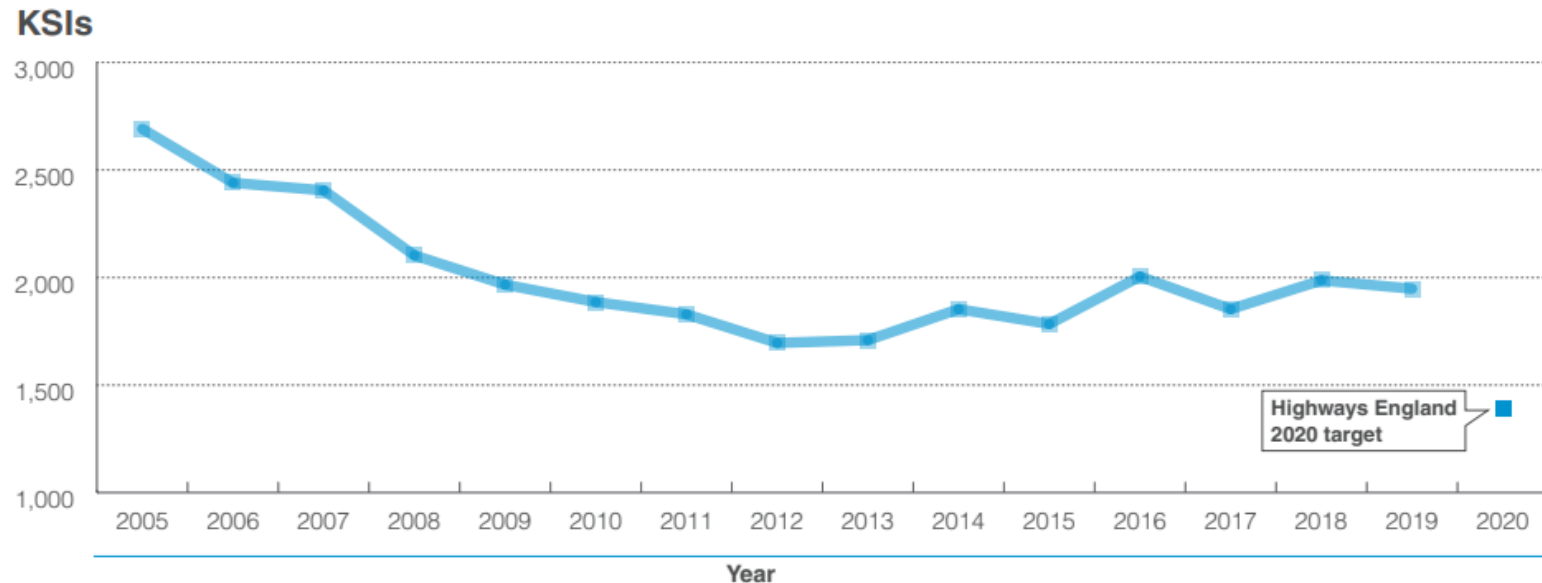
40% reduction target for 2020

national highways

2019 Road safety performance overview

August 2021

Figure 1 Killed or seriously injured reported road casualties on the SRN, 2005 to 2019

KSIs

Highways England 2020 target

Year

The new Safer Roads Index, compares the performance of local authorities across Great Britain, identifying how weak results over the last decade have resulted in an unacceptable level of death and injury. It also compares the cost of carrying on with a 'business as usual' scenario for the next ten years with the effort required to reach the global target of a 50% reduction by 2030.

In 2020, the United Nations General Assembly declared a decade of action on road safety and called for member states to work to reduce road deaths to 50% of their current level by 2030. The data presented here will help community leaders and activists to understand the scale of the challenge and the inexcusable cost of failing to act over the coming decade.

Please use the navigation buttons below to investigate recent performance and predicted future outcomes in your area. The data is available at Police Force and Upper Tier Local Authority level. You also view more information on the data sources and analysis methodologies.

Search by Local Authority

Search by Police Force

http://index.agilysis.co.uk/

Local Vision Zero Partnerships

50BY30

HALVE ROAD DEATHS & SERIOUS INJURIES BY**2030**

Think Communities

Public Involvement

Strategic Board

Partnership Delivery Manager

Report to:
Cambridgeshire County Council
Peterborough City Council
Cambridgeshire and Peterborough Combined Authority
Office of the Police and Crime Commissioner

SAFE SPEEDS

SAFE ROADS

SAFE VEHICLES

POST-COLLISION RESPONSE

SAFE ROAD USERS

Policing

Fire and Rescue Service

LHA Road Safety Teams

Addenbrookes & Victims Trust

Highways

Delivery Champions

VISION ZERO PARTNERSHIP
Delivering Safer Roads for Cambridgeshire & Peterborough

SPI - UK Roundtable Events

Aims:

- What international evidence is there for the setting of Safe System SPIs?

- Where have SPIs been created already in Great Britain?

- What is the current state of readiness for assessment for individual SPIs?

- A deep dive into the road infrastructure SPI

- What role can AI and new data sources provide in informing SPIs?

- What would a national best practice guide look like for partnership and authorities in GB?

Bringing together private sector, roads authorities, academics, international experts to create a better understanding of what is already being done, what could be done, and what should be done?

| Safe Speed		Safe Road Use		Safe Vehicles		Safe Roads		Post Collision	
Average speed	76%	Alcohol/drugs	96%	Vehicle safety ratings	84%	Active travel	24%	Response times	96%
85th percentile	71%	Casualty rates	41%	Vehicle technology	84%	Barriers	56%	Trauma coverage	56%
Speed limit setting	71%	Child restraints	63%			iRAP risk rating	88%		
		Handheld device use	89%			Junction treatments	68%		
		Helmet wearing	48%			FSC numbers	28%		
		Seatbelts	78%			Motorcycle facilities	52%		
						Safety ratings	72%		

SPI Collection

SPIs into three categories:

1. Already collected and SPI defined

Speeds

- National dataset with timeseries and baseline

- Robust methodology

- Can be sub-divided
    - Speed Limit
    - Vehicle class

- Local data available

- New sources e.g. Floating vehicle GPS

Figure 3: Distribution of car speeds by road type in Great Britain, 2020 (Table SPE0111)
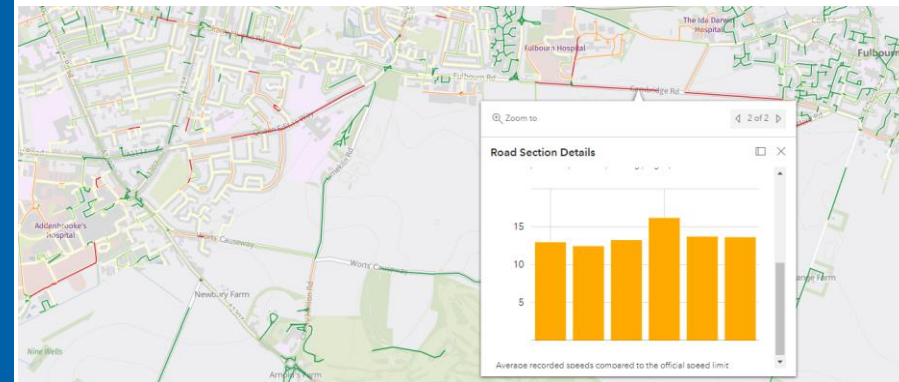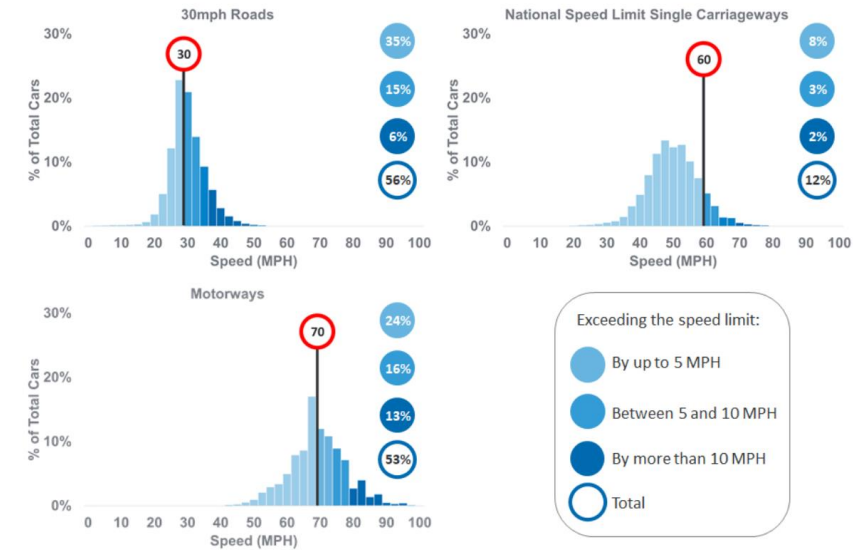
SPI Collection

2. Data available, SPI challenging

Drink drive data held
- Police operations
- Percentage failures
- Prosecutions

- Not suitable for an SPI
 - Ideally randomised checks

Mobile phone use data
- Public surveys (self-report)
- Limited roadside surveys
- Can AI increase coverage and sample size?

SPI Collection

3. Data unknown, SPI defined

- Road Attributes

- Percentage of roads where traffic flows at 80km/h (50mph) or more have divided carriageways

- Percentage of intersections where traffic flows at 60km/h (40mph) or more have turning provision

- Percentage of roads where pedestrians cross and traffic flows at 40km/h (25mph) or more have pedestrian crossing facilities

- Need to collect more road attribute data
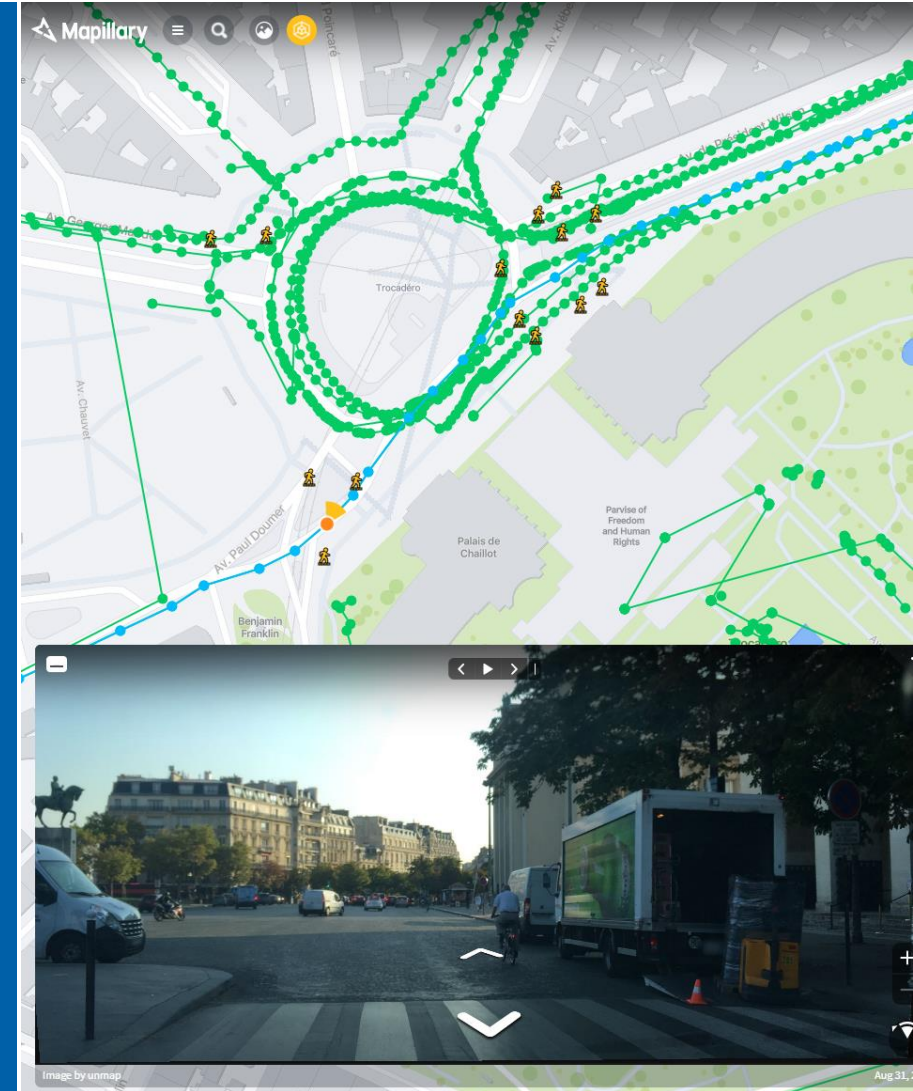
Transport Scotland

Annual Delivery Plan
2021-2022

Scotland's Road Safety Framework to 2030
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Key Performance Indicators

No	RSF2030 Outcome	KPI description	Organisation responsible for collection of data	Assessment frequency	KPI status
01	Safe Speeds	Percentage of drivers/riders driving WITHIN the speed limit	Transport Scotland	Quarterly	Current
02	Safe Road Use	Percentage of drivers NOT distracted by a handheld mobile phone	Transport Scotland	Every three years	Current
03	Safe Road Use	Percentage of vehicle occupants wearing a seatbelt or child restraint system correctly	Transport Scotland	Every three years	Current
04	Safe Road Use	Percentage of drivers/riders driving WITHIN the legal limit for alcohol or specified drugs	Transport Scotland	Every six months	Current
05	Safe Road Use	Overall casualty rate by SIMD decile (10 equally sized groups)	Transport Scotland	Annually	Current
06	Safe Roads and Roadsides	Percentage of distance travelled by vehicles that are travelling on roads with a risk rating below a relevant threshold	Transport Scotland	Annually	Current
07	Safe Vehicles	Percentage of new passenger cars, LGVs and HGVs with a 5-star EuroNCAP safety rating	Transport Scotland	Annually	Current
08	Post-Crash Response	Time elapsed in minutes between the emergency call following a collision resulting in personal injury and the arrival at the of the emergency services.	Scottish Fire and Rescue Services	Every six months	Current

Transport Scotland

Annual Delivery Plan 2021-2022

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02 - Percentage of drivers NOT distracted by a handheld mobile phone	
Related RSF Outcome	Safe Road Use
Related RSF Strategic Action	Change in Attitudes and Behaviour: we will engage in partnership working to enable all road users to understand their road safety responsibilities, allowing them to improve their attitudes and behaviours for the safety of themselves and others. Enforcement: we will optimise enforcement to encourage good road user behaviour to support the Safe System.
Rationale	Driver distraction is considered as a collision factor of growing importance due to the increased use of mobile devices, mainly smartphones, during the past years. The widespread use of texting applications has aggravated the existing problem of phone calls. In 2019 in Scotland, a distraction to the driver from inside the vehicle was a contributory factor in 2% of recorded collisions (reported Road Casualties 2019, Table M). The latest mobile phone survey undertaken in Scotland recorded the behaviour of 14,427 drivers and found that, while compliance was good, it is decreasing over time. This is why the use of a handheld mobile device while driving is proposed as a proxy to assess the driver distraction problem. The survey found that the proportion of car drivers observed using a mobile phone whilst driving was at 1.8% at moving (free-flowing) sites, a marginal increase from the 2014 figure (1.3%). At stationary (traffic light controlled junction) sites, the proportion observed using a mobile phone was 2.4%, an increase from 2014 figure (1.6%).
Measure Description	Number of drivers observed NOT holding mobile electronic devices while driving by site type (stationary or mobile) relative to the total number of drivers observed.
Measure Aim	To measure compliance to law in relation to the offence of using a hand-held mobile phone while driving (likely to include non-connected mobile application actions in the near future).
Methodology	Direct observation by trained observers on roadside or from moving vehicles. More detail can be found in Section 2 Methodology of Seatbelt and Mobile Phone Usage Survey Scotland.

Lead Safety Indicators: Roads

Aim: To explore the potential for using available measurable parameters related to roads to predict, manage and improve safety on the SRN.

Definition of Lead Safety Indicator: A metric based on data relating directly to risk, providing information to predict future events (as opposed to a lag indicator which relates to past events)

In collaboration with:

TRL

Tasks

- Overview of potential data sources for identifying road elements as contributory factors/ countermeasures
- Exploring the links between road features and safety
- Development of methodology to measure road features as an LSI

The evidence

Highways England fatals database (450 cases)

342 cases (76%) had a road causation element

Road design features - junctions

24% of KSIs on the SRN in 2018 occurred within 20m of a junction

Road design features – verges / median features

46% of fatalities on the SRN (2014-2018) were of the run-off-road type

LSIs and levers to influence roads

LSIs	Levers
Average iRAP flow weighted Star Rating Score	Encourage greater use of iRAP to optimise safety in designs and on existing routes
% of barrier terminals which face oncoming traffic and are not of P4 performance class	Proactive replacement of existing P1 ramped end approach terminals with safer P4 terminals Require that any damaged P1 ramped end approach terminal can only be replaced with a P4 standard terminal
Measured distance of unprotected Wooden Boundary Fence	Increase the risk level for these features in the RRRAP system Develop and test safer fence types Protect stretches of these fences with restraints, particularly those closer to the running lane
% of Motorcyclist Protection System at high risk locations	Install MPS at high risk linking roads within junctions with radii of less than 200m as matter of course
% of Motorway with Central Concrete Barrier	Increase the length of H1 standard central barrier on motorways with greater than 25,000 vehicles/day

Next steps

- Ensure the data needs of any adopted LSIs are incorporated into survey provisions and practices
- Investigate cost-effective options to update iRAP more frequently
- Make a case and develop costs for updating AVIS manually and regularly
- Understand to what extent the Area/Regional teams are keeping HAPMS data up to date

national highways