

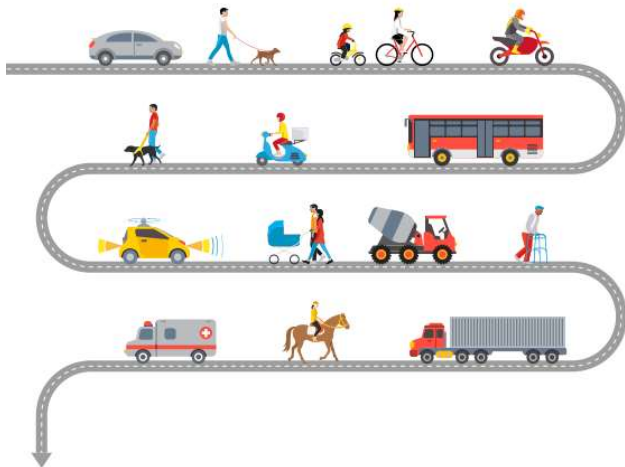
# Road Safety Scotland Annual Seminar

## EICC: 26 March 2024



### Scotland's Road Safety Framework to 2030

Together, making Scotland's roads safer



Scotland to have the best road safety performance in the world

[transport.gov.scot](http://transport.gov.scot)





Chief Superintendent Hilary Sloan  
Head of Road Policing  
Road Safety Scotland Seminar 2024  
Managing Speed on the road network

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# National Division Overview

- Chief Superintendent & Superintendent
- Three Local Area Commanders (CI) for North, East and West and one Support & Service Delivery CI
- Every Local Policing Division has dedicated RP Inspector
- National Motorcycle Unit – Edinburgh and Govan
- Collision Investigation Oversight Unit
- Road Policing Management Support
- Road Policing Operational Support
- National Calendar of Road Safety Campaigns
- Transport Scotland Liaison
- Safety Camera Units



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# RP Focus and Objectives

## **Our focus –**

Core role of high visibility patrols

Positive engagement and appropriate enforcement with drivers and other road users

Influencing behaviour to make Scotland's roads safer.

## **Our objectives –**

Effective patrolling of our roads

Influencing driver and road user behaviour

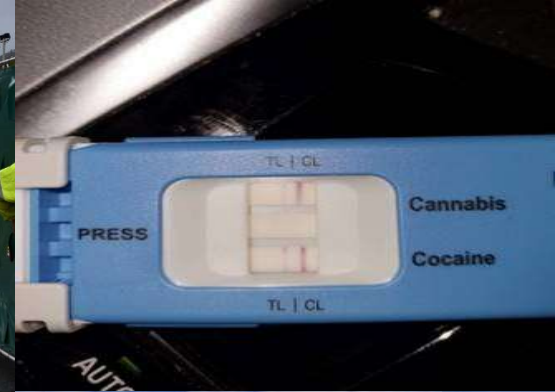
Detecting and deterring all types of criminality on our roads

Combatting the threat of terrorism



# Specialist Responsibilities

- Advanced Driving
- Pursuit Management
- HOSTYDS (Stinger) deployment
- Security Escort Driving
- Investigation of Fatal / Serious RTCs
- Forensic Collision Investigation
- Roadside Impairment Testing (now including Drug Wipe screening)
- Carriage of Dangerous Goods
- Vehicle Prohibition
- Escorting Abnormal Loads
- Traffic Management



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# Road Safety Operations / Initiatives

Operation Close Pass

Rider Refinement North & East

Older Road Users Engagement

New Driver Scheme

Operation Tramline

Operation Tutelage

Drive On The Left Campaign

DVSA Action Days

Driver & Rider Diversionary Courses

Keiran's Legacy

In-depth Fatality Study - collaboration

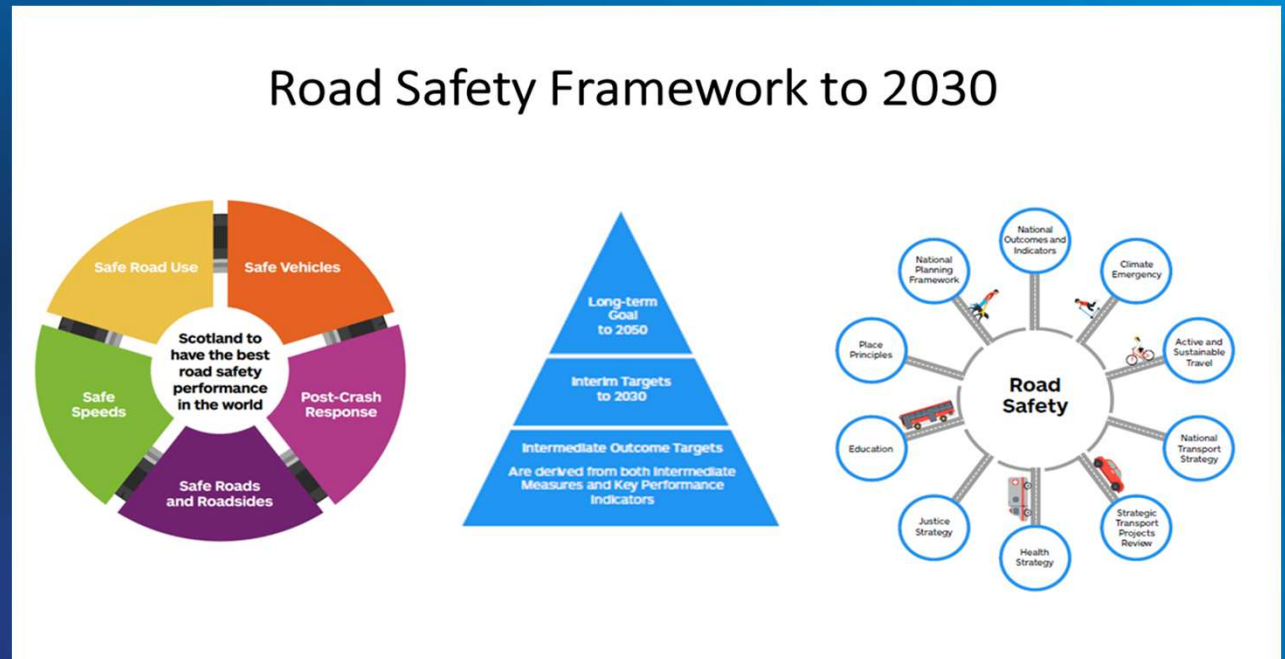


# Road Safety Framework 2030

- Road Policing will work in partnership to influence driver and road user behaviour, reduce road casualties and detect and deter all types of criminality on our roads.
- Road safety is a priority for Police Scotland with Partnership working key to success

Interim Targets to 2030 2022 position

- 50% People killed 0%
- 50% People seriously injured 37%
- 60% Children (aged <16) killed 17%
- 60% Children (aged <16) seriously injured 34%



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# Road Policing – Fatal Five

Drink & Drug Driving

Speeding

Seatbelts

Mobile Phone / Distraction

Careless Driving



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# Local Speeding Check Sites

Road Policing and local officers nationally will attend areas in their respective command areas based around complaints, collision data and operational requirements

Engagement with our local communities is key in developing which sites we attend, time of day/what day and collision data

Priority locations are developed for each division for patrolling and detecting offences, including speeding

Work on this is dynamic and is in conjunction with our speeding campaigns in previous years

# Local Speeding Initiative

## Edinburgh Division – Case Study

Lothian Buses engage with RP when they receive a high volume of complaints from the public about the perceived speeds of their buses.

RP PC will attend with two staff trainers from Lothian Buses and assist with speed monitoring at the complaint locations.

Any speeds over the limit that are detected are then used by Lothian Buses management to undertake disciplinary proceedings at their disposal.



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# Previous Statistics in Relation to Speeding

From the In-Depth Fatalities Study:

*“Exceeding the speed limit’ or ‘Driving too fast for conditions’ were contributing factors in 36% of all fatal collisions (n=322 of 903). Younger drivers are prominent, with 15-25 year-olds in 31% (n=101 of 322) of collisions. 26-35 year-olds accounted for a further 27% (n=86). Collisions occurred throughout the day, peaking between the hours of 15:00 and 18:00 (21%, n=68). There were higher numbers of collisions during summer (n=98) and spring (n=83), with the peak month being July (n=38). There was little year-to-year variation with the number of collisions ranging from 50 to 63, with the exception of 2015 which recorded only 38 fatal collisions where excessive speed was a contributing factor.*

*The majority of collisions occurred on single carriageway roads (86%, n=277). In terms of speed limit, collisions on roads with a 60mph limit were most frequent (64%, n=205).”*



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# Fatalities

- This year (2023/24) to 20/03/24, fatalities are very similar to 2022/23
- Analysis has showed that peak months over 22/23 have been August and December
- Majority of deaths have been that of drivers, pedestrians & motorcyclists
- Elderly drivers and Young drivers account for the majority of deaths



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# National Road Victim Service in Scotland

Team of 5 caseworkers in Scotland – funded by Scottish Government

Provide practical, emotional and advocacy support to bereaved and injured (life changing) families in Scotland – mostly in person / face to face

Referral route from Police Scotland (and major trauma units for injury cases), governed by an Information Sharing Agreement

Additional support available:

- Specialist support for schools where a death of a pupil occurs
- Multi-fatality protocol
- Out of hours trauma support for complex case available (only in Scotland)



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# National Calendar of Road Safety Activity 2024/25

Our National Calendar of Road Safety Activity has been published and this year there has been liaison with the NPCC to ensure we are in alignment with forces in England & Wales.

All divisions are sent out information of the campaigns in advance with return sheets. The return sheets are collated, with analytical data retrieved to highlight any issues in specific divisions and are shared nationally at several working groups.

Local RP divisions link in with partner agencies, to carry out initiatives within their area and these are promoted with assisted from Police Scotland Social Media Team.

Speeding is not only enforced during the campaign dates, but on a daily basis across Scotland.



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# National Calendar of Road Safety Activity 2024/25

- Fatal Five (includes Speeding) - April
- National Speed Campaign - September
- Young Drivers Fatal Five – September/October
- Brake Road Safety Week – November
- Commercial Vehicles Campaign – January/February 2025
- National Speeding Campaign – March 2025

# Questions?



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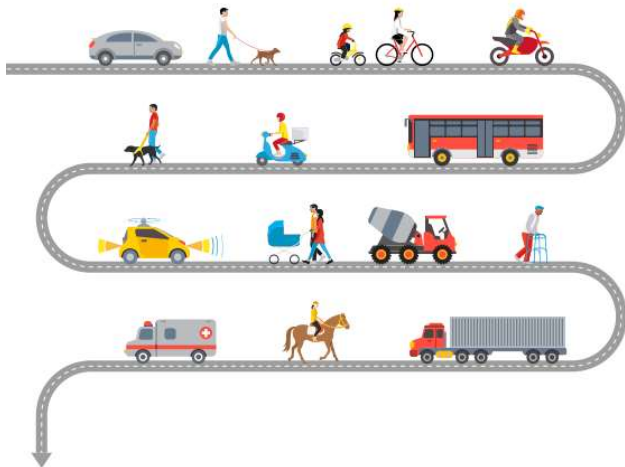
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# Digital Evidence Sharing Capability Programme

T/Supt Graham Binnie, Programme Lead, DESC



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

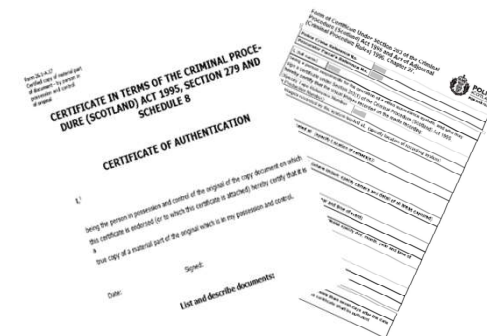


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# What is DESC?

## Delivering a digital pathway from crime scene to court room

- **DESC** is a significant CJ transformational programme designed to deliver an end-to-end service which will **collect, certify, manage and share digital evidence** throughout the criminal justice process.
- The programme is a **collaboration** between criminal justice sector partners - Police Scotland, Crown Office and Procurator Fiscal Service, Scottish Courts and Tribunals Service, and the defence community supported by the Scottish Government.
- **What DESC is not?**



# Why DESC?

- **To provide better outcomes and experiences for victims, witnesses and the accused within the Criminal Justice system.**
- **Criminal Justice Partners agreed the management and sharing of digital evidence is a priority.**
- **It's widely accepted current arrangements for the exchange of evidence were costly and ineffective.**
- **As the demand and volume of information created and available digitally continues to increase, DESC provides secure digital evidence storage to support sharing between Criminal Justice Partners.**



# Why DESC?

## Policing the New Frontline

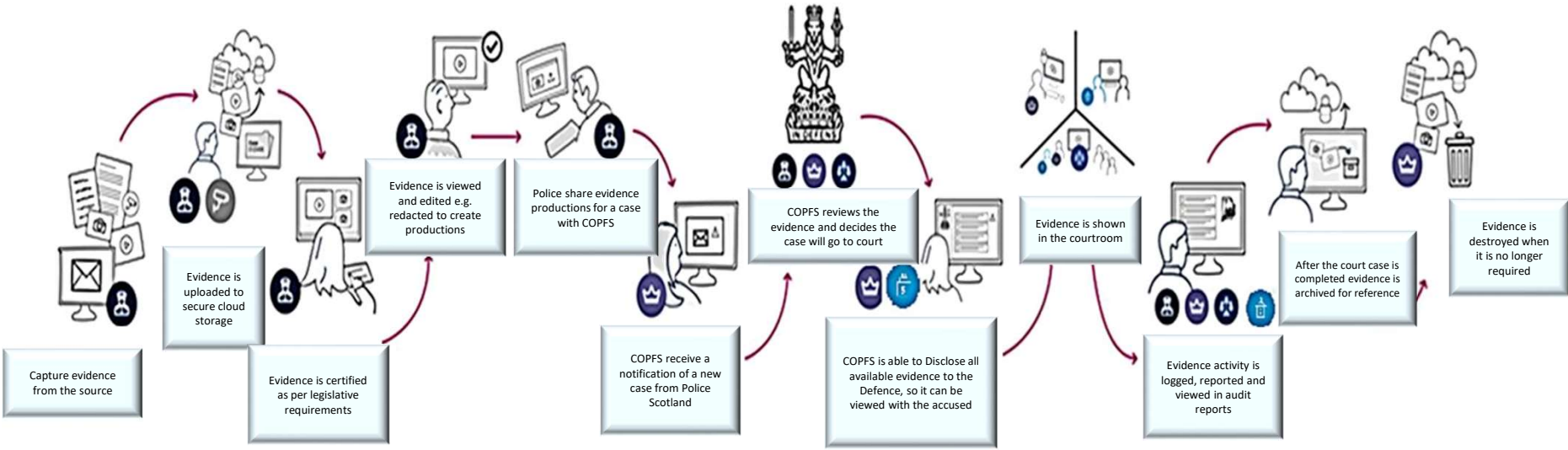
- Dashcams
- Journeycam
- Social media
- Mobile Phones
- CCTV
- Private video footage

## Future requirements

- Body Worn Cameras
- Interviews
- Summary Case Management



# DESC Evidence Flow





# Benefits and Delivery Outcomes



## Partnerships

Easier sharing of evidence across all partners agencies with confidence and trust in the approach



## Processes

Joined up End to End process across all partners with less cases going to trial due to earlier resolution

Staff equipped with the tools for the job (transcoding, clipping, bookmarking, disclosing)



## New Services

Fit for purpose solution that is capable of meeting evolving demand for handling future evidence types – e.g. *Body Worn Video*



## Public Confidence

Enhanced public confidence by supplying a modern technology solutions to accept and make use of evidence from multiple sources.

Ability to upload varying digital evidence via set link



## Save Money

Reduction of associated costs to manage evidence (Discs and Pen Drives) including storage, transportation, handling and destruction



## Save Time

Faster and more efficient access to evidence which is likely to have a positive impact on earlier case resolution. Including early disclosure to the defence



## Save Effort

Reduction in number of Production Staff required to manage productions

Office Staff freed up to carry out value added tasks as not carrying out low level edits



## Resource Flexibility

Increased resource flexibility within Criminal Justice. Ability to carry out role from any secure location



## Increased Compliance

Reduced risk of being fined by information commissioner for lost discs



## Quality

Enhanced quality of the SPR Report with links to the digital evidence embedded



## Justice

Reduction in Court resource time spent at court due to evidence issues causing trials to be scheduled



Ability to present evidence in court for both COPFS and the defence. Potential to reduce length of trials due to digital evidence being available and added functionality available

# Next Steps

- **Expand to national rollout**
- **Broaden Horizons**
- **Impacts and benefits for stakeholders**
- **Potential of Digital Evidence Management Solutions**

# Questions?

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**DESC**  
Digital Evidence Sharing Capability



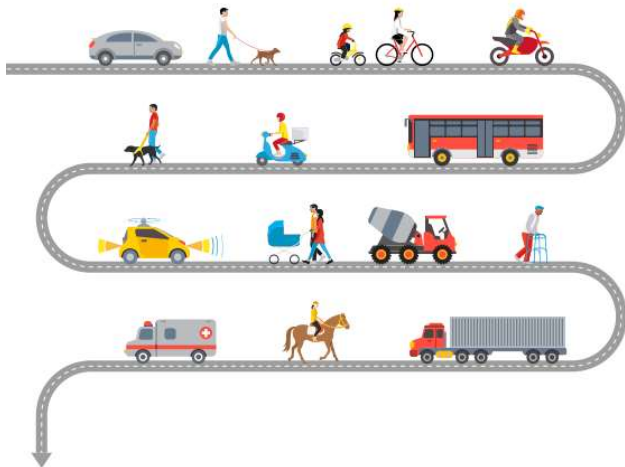
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# Project PRIME: Guidance for installing the road sign and markings

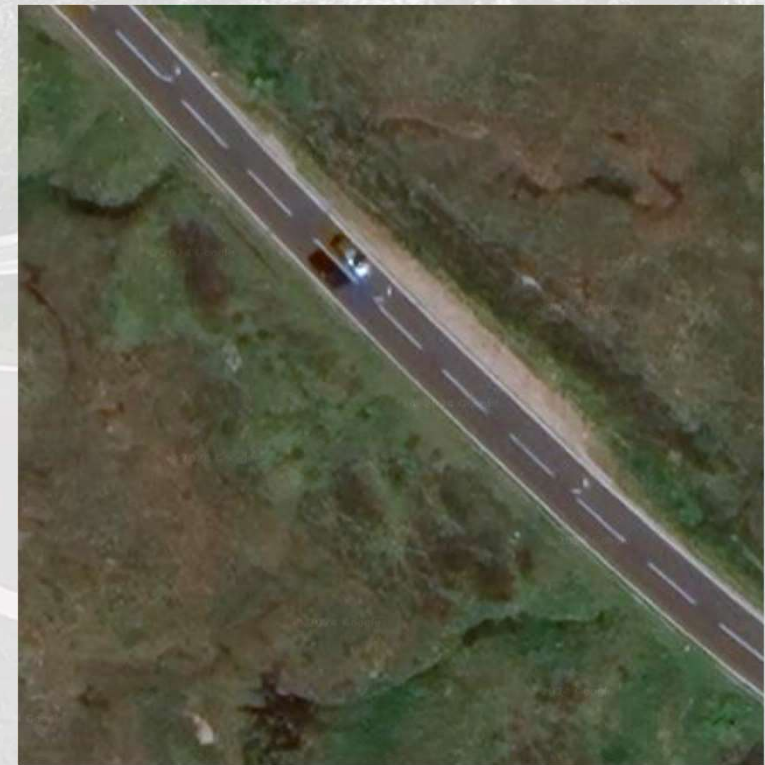
Professor Alex Stedmon

Open Road Simulation Ltd, UK



# A new approach to rider safety and behaviour change

- Motorcyclists are a priority group
  - less than 1% of all traffic in Scotland – but typically 14% of KSIs
  - one of the most vulnerable road users on the road
- Scotland's Road Safety Framework to 2030
  - 'safe system' approach
  - 30% reduction in motorcycle KSI statistics
- Project PRIME
  - traditional methods do not always work - habituation effects
  - a simple tool to 'prime' positive behaviours
  - establishing the science base for behaviour change



**PRIMEs – visible from space!**



# PRIMEs

- **PRIME = Perceptual Rider Information for Maximising Expertise or Enjoyment**
- Traffic sign and gateway markings
  - intuitive = ride 'through the gap'
  - user-centred = for motorcyclists by motorcyclists
- Rider behaviour on approach to bends
  - speed
  - position
  - braking



**PRIME gateway marking**

# Phase 1 (2020 to 2022) – key findings

- Over 32,000 motorcycles observed
- Speed
  - significant reductions at 10 trial sites
  - trends observed at four other sites
- Lateral position at the final PRIME
  - significant positive changes at 15 trial sites
  - trends observed at three other sites
- Lateral position at the apex
  - significant positive changes at 13 trial sites
  - trend observed at one other site
- Braking behaviour
  - significant reductions observed at 9 trial sites
  - trends observed at 15 other sites
- Use of the PRIME road markings
  - significant increased use of PRIMEs at 18 trial sites
  - trends observed at three other sites

Site	Rider Behaviour				
	Speed	Position at PRIME	Position at Apex	Braking	Use of Gateway
<b>2020</b>					
Appin House north		Sig			Trend
Appin House south	Sig	Sig	Sig	Trend	Sig
Kingshouse north	Trend	Sig			Sig
Kingshouse south		Sig	Sig	Trend	
Loch Lubhair east		Sig	Sig	Sig/Trend	Sig
Loch Lubhair west	Sig	Sig	Sig	Sig	Sig
Rob Roy's Dip east 1		Sig		Trend	Sig
Rob Roy's Dip east 2		Sig	Sig	Trend	Sig
Rob Roy's Dip west 1	Sig	Sig	Sig	Trend	Sig
Rob Roy's Dip west 2	Sig	Sig	Sig	Trend	Sig
<b>2021</b>					
Taynuilt	Sig		Sig	Trend	Sig
Inveruglas	Trend	Trend	Sig	Sig	Trend
Runacraig – north	Sig	Trend			Sig
Runacraig – south	Sig	Trend		Sig	Sig
Dunira	Sig	Sig	Sig	Sig/Trend	Sig
Bonawe	Sig		Trend	Trend	Trend
Landrick Bends*	No effect	No effect	No effect	Trend	No effect
<b>2022</b>					
Dailnamac		Sig	Sig	Sig/Trend	Sig
Pulpit Rock			Sig	Sig/Trend	Sig
Butterbridge		Sig		Trend	Sig
Middle Kames	Trend	Sig		Sig	Sig
Salmon Draft – north	Sig			Sig/Trend	Sig
Salmon Draft – south	Trend	Sig	Sig		Sig
Carrick*	No effect	No effect	No effect	No effect	No effect



# PRIMEs work!

- Dissemination and recognition
  - value of behavioural science in transport initiatives
  - world leading scientific journal and conference papers
  - findings reviewed by the scientific community
  - awards
- Phase 2 (2023 to 2025)
  - untreated roads, right-hand bends, speed reductions
  - PRIMEs roll out = guidance



A collage of research papers and awards. The central focus is a paper titled "PRIME Road Markings for Motorcycle Casualty Reduction in Scotland" by Alex Stedmon, David McKenzie, Martin Langham, Kevin McKechnie, Stuart Wilson, Morag Mackay, and Stuart Geddes. The paper is published in "Transportation Research Part F: Psychology and Behaviour" (2022) 123:300. The collage also includes a Prince Michael International Road Safety Awards logo and a snippet of a paper titled "Safer road users: Investigating the influence of PRIME road markings on motorcycle rider behaviour" by Alex Stedmon, David McKenzie, Martin Langham, Kevin McKechnie, Richard Perry, and Stuart Wilson. The collage also shows a snippet of a paper titled "The approach to demanding bends at..." and a snippet of a paper titled "Motorcycle rider behaviour...".

3 journal papers and 2 international conference papers – with more to follow

# Developing the guidance

- **Purpose**
  - standard approach for installing PRIMEs
  - road safety professionals supporting the 'Safe System' approach
- **Costs and benefits**
  - standalone, low-cost and low-maintenance initiative
  - readily adopted by riders = demonstrated behaviour change
  - 1 to 2 hours install for road markings
  - minimal disruption to road network
- **Guidance**
  - sign and road markings not in Traffic Signs Regulations and General Directions (TSRGD)
  - transfer positive progress of PRIMEs
  - encourage others to use them carefully and consistently



**Project PRIME in action**

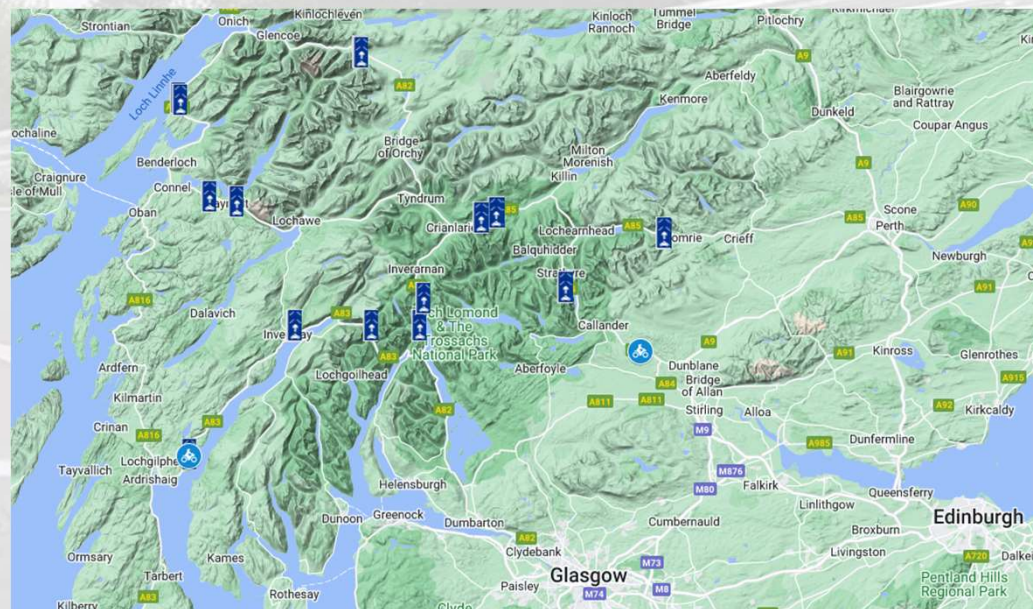


# Where have PRIMEs been trialled

- 22 trunk road sites = 12 bend types
  - speed – 85<sup>th</sup>tile below 50mph = 'slower' above 50 mph = 'faster'
  - gradient – downhill, flat, uphill
  - approach – preceded by bend or straight

- **Considerations**

- 18 left hand vs 4 right hand bends
- two-lane trunk roads (5.5m min. for centrelines)
- up to 3.5m and over 3.5m
- PRIMEs before bends
- no single track, one-way roads
- no motorways or dual-carriageways



**PRIME trial sites across Scotland**

# Where do PRIMEs work best?

Site characteristics Speed - Gradient - Approach (number of sites in Phase 1)	Speed	Position		Braking	Gateway
		PRIME	Apex		
Slow - downhill - from a bend (1)		✓✓			✓
Slow - downhill - from a straight (1)	✓✓	✓			✓✓
<b>Slow - flat - from a bend (2)</b>	✓✓	✓✓	✓✓	✓✓	✓✓
<b>Slow - flat - from a straight (2)</b>	✓✓	✓✓	✓✓	✓✓	✓✓
Slow - uphill - from a bend (1)	✓✓		✓	✓	✓
Slow - uphill - from a straight (2)	✓✓	✓	✓✓	✓✓	✓✓
Fast - downhill - from a bend (2)	✓✓	✓✓	✓✓	✓	✓✓
Fast - downhill - from a straight (2)		✓✓	✓✓	✓✓	✓✓
Fast - flat - from a bend (1)		✓✓	✓✓	✓✓	✓✓
<b>Fast - flat - from a straight (4)</b>	✓✓	✓✓	✓✓	✓✓	✓✓
<b>Fast - uphill - from a bend (2)</b>	✓✓	✓✓	✓✓	✓✓	✓✓
Fast - uphill - from a straight (2)	✓✓	✓✓	✓✓	✓	✓✓

- These findings will be updated with results from Phase 2



# PRIME site selection

- **Collision data analyses**
  - historic data, road safety reviews
  - expand the timeframe = up to 10 years?
  - expert rider reviews
  - as part of the safe system a proactive approach can be taken rather than reacting to collisions
  - near-miss data from riders
- **Site appraisal and preparation**
  - condition of carriageway surface
  - ironworks
  - road markings = SLOW
  - road signs
  - vegetation

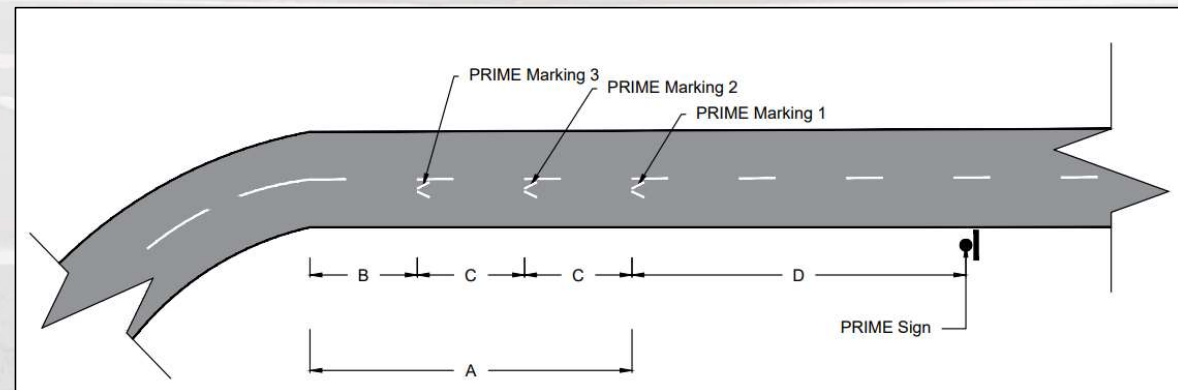


**PRIME site selection**



# PRIME design process

- Speed measurements
- Establish PRIME road sign position
  - position of first PRIME road marking to be encountered
  - in advance of first road marking in accordance with TSM Ch4AppA
- Establish PRIME road marking position
  - up to 50 mph = 15 to 25m before bend with 20m to 25m spacings
  - over 50 mph = 25 to 35m before bend with 30m spacings
- Site visit and marking out
  - recce, ride through, review
  - non-prescribed signs applications
- Installation
  - road authorities and contractors
  - template to reduce time on road



**PRIMEs layout guidance**

# PRIME site monitoring and evaluation

- **Monitoring**
  - unlikely that research will be required
  - good practice to monitor behaviour change at sites
- **Safety performance**
  - each authority will have established procedures for monitoring collisions
- **Maintenance**
  - asset register for routine maintenance surveys
  - higher traffic levels, heavy good vehicles, wet/damp conditions
  - liaise with police – issues or unintended outcomes




**PRIMEs – if you install them,  
motorcyclists will use them**

# Launching the guidance

- Road Safety Scotland 2024
  - thank you for the opportunity
- Operating Company evaluation exercise
  - test the draft guidance
  - provide user feedback before wider roll out
  - planned for 2024 motorcycle season

**Project PRIME**  
**Installation guidance for road safety practitioners and engineers**  
**(v0.9)**


**DRAFT – not for distribution**



Prof Alex Stedmon<sup>1</sup>, David McKenzie<sup>2</sup>, Richard Perry<sup>2</sup>, Kevin McKechnie<sup>3</sup>, Stuart Geddes<sup>3</sup>,  
Martin Langham<sup>1</sup>, Stuart Wilson<sup>2</sup>, Morag Mackay<sup>2</sup>

<sup>1</sup>Open Road Simulation Ltd, UK <sup>2</sup>Transport Scotland, UK <sup>3</sup>BEAR Scotland, UK

**March 2024**



Prince Michael  
INTERNATIONAL  
ROAD SAFETY AWARDS

**TRANSPORT SCOTLAND**  
COMPTON ALLEN

**ROAD SAFETY TRUST**  
Making Roads Safer

**BEAR**  
SCOTLAND

**open road**

**PRIMEs draft guidance**



# Thank you

- [alex@openroadsim.com](mailto:alex@openroadsim.com)



**flying the flag  
for casualty reduction in Scotland!**



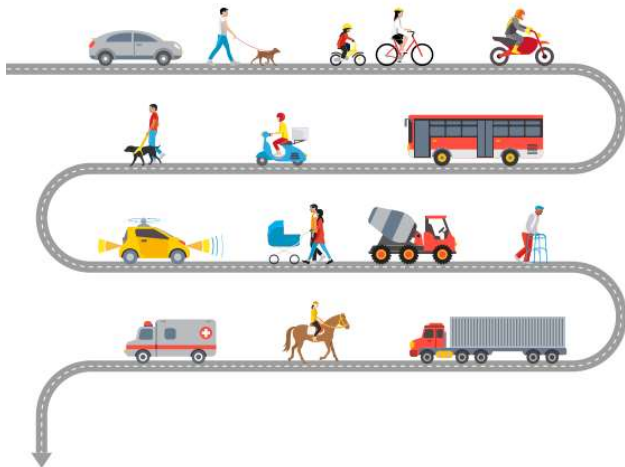
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