

Road traffic accidents on roads in Scotland

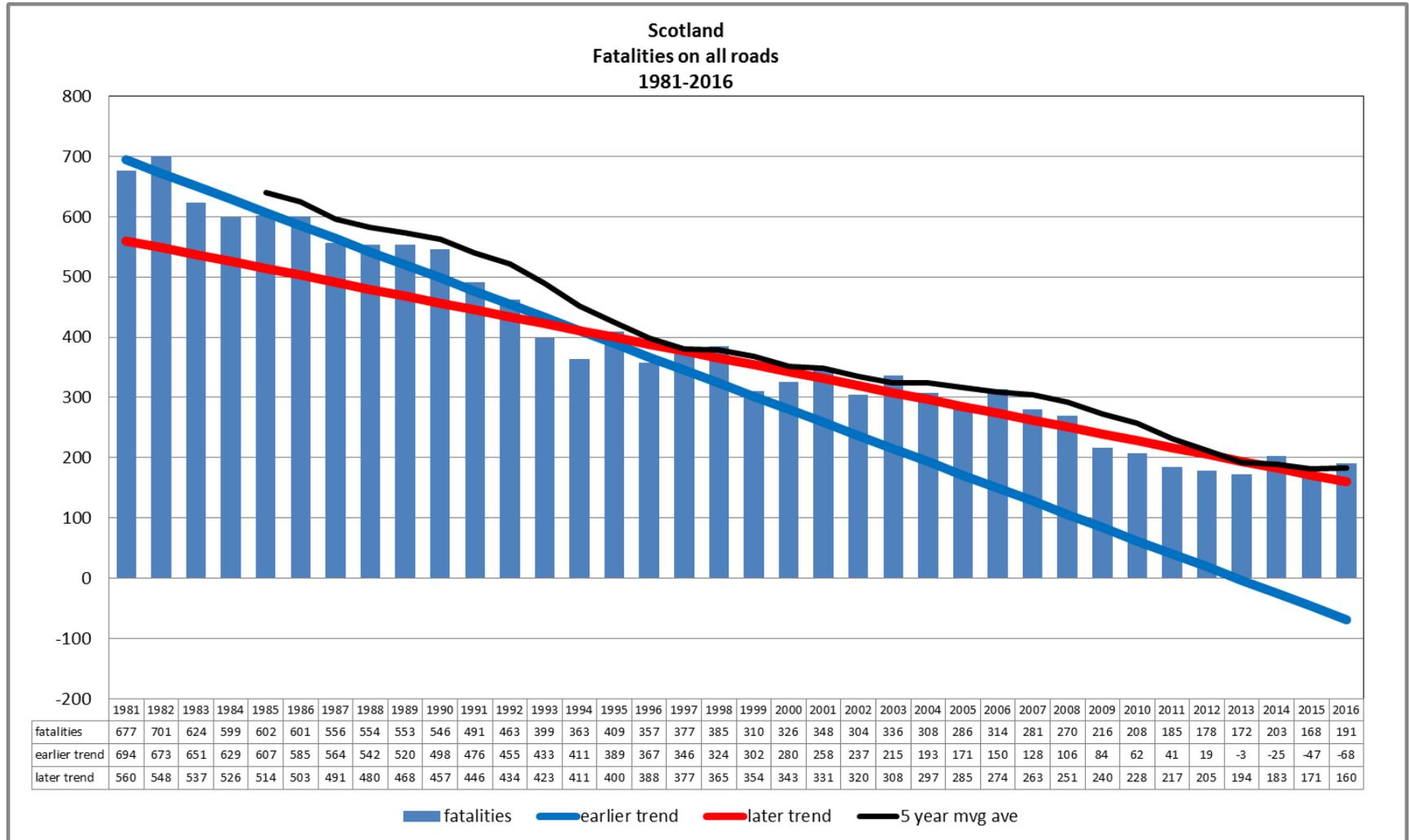
- towards a Vision (of) Zero fatal casualties

A brief history

(from an engineer's point of view)

- 1967: Road Safety – A Fresh Approach
 - Scientific, not “common sense”
- 1974: Road Traffic Act
 - Duty placed on local roads authorities
- 1975: Regionalisation (post Royal Commission)
 - Larger roads authorities, possibility of addressing engineering aspect
- 1980: Computerised systems
 - Possibility becomes reality
- 1987: Target for 2000 (or thereabouts)
 - Fatalities reducing by 22 per year
- 1996: Local Government “Re-organisation” (political?)
 - Regions reduced to council areas - engineering aspect threatened
- 2000: Failure to reach target – more targets set
 - Fatalities reducing at 11 per year
- 2004: Speed cameras
 - Endless debate begins
- 2009: Scotland's Road Safety Framework + more targets + Vision Zero
 - ISA appears on page 85
- 2017: Framework Review
 - Fatalities reducing at 1 per year

Fatal casualties: a pictorial history



Conclusions

Based on 2012-2016 rate of reduction:

- 182 years to reach Vision Zero!
- Area between trend lines = 2289 units
- Effective measure required
- Intelligent speed assistance?
 - Originally EVSC: external vehicle speed control
(**1997** – Leeds University & MIRA)

500 DEATHS EVERY WEEK ON EU ROADS

5500 pedestrians
killed in 2013



2000 cyclists
killed in 2013



26,000
people killed
in 2013



200,000
seriously injured

Speed is the primary factor in 1/3
of all fatal collisions



Up to 60% of drivers
exceed speed limits

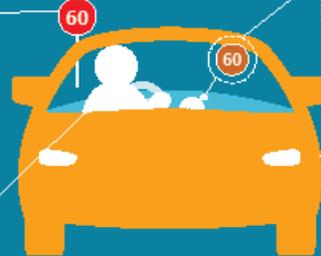


WHAT IS INTELLIGENT SPEED ASSISTANCE?

1. Car receives position information via GPS and current speed limit from a digital map. Can also be combined with video camera sign recognition.

2. Speed limit is displayed on the dashboard.

Driver can override system by pushing harder on accelerator.



3. Car helps driver not to speed when speed limit is reached.

ISA COULD CUT COLLISIONS BY 30% AND DEATHS BY 20%



Cars fitted with ISA
could **reduce CO2**
emissions by **8%**



EuroNCAP awards
extra points to
cars fitted with ISA



78% of road users
64% of car drivers
say they support in-vehicle
speed limiters (SATRE 2012)

We're asking the EU to require carmakers to fit overridable ISA in all cars.

Fit #SafetyAsStandard

Find out more at: www.etsc.eu



What should government do?

A clear finding from the research on ISA is that the stronger forms of ISA deliver much greater safety benefits than the weaker forms. It is all very well to rely on the market to deliver ISA, but we know from past experience with, for example, seatbelts, that the market on its own is not likely to deliver. The government should therefore **assist the market** by:

1. Getting on with the job of creating a **national digital database** of speed limits as quickly as possible, as well as sorting out **procedures to keep the database up-to-date**;
2. Setting an example by fitting the government fleet, including ministerial vehicles;
3. Seriously consider giving tax incentives to purchasers of new vehicles who chose Voluntary ISA as an option (this will encourage the vehicle manufacturers to offer the system); and
4. Promote the purchase of ISA vehicles through publicity campaigns.

What has government done -1?

2009 - ISA top of the “speed” commitments

Speed

Commitments	Short Term	Medium Term	Long Term
Promote the voluntary use of Intelligent Speed Adaptation (ISA).		✓	
Consider a pilot in Scotland to test out the effectiveness of voluntary ISA in road safety.		✓	
Continue to publicise and educate people about the risks associated with speeding.	✓	✓	✓
Encourage local authorities to implement any changes indicated by their review of speed limits.		✓	
Continue to raise awareness of speed limits, including those that apply to different types of vehicle on the different categories of roads.	✓		
Continue to support the Safety Camera Programme.	✓		
Support the development and implementation of the new viewing and administration system for the Safety Camera Partnerships.	✓		
Consider if the introduction of a Speed Awareness Scheme focused on speeding would be an appropriate contribution to road safety in Scotland.		✓	
Increase awareness of the benefits of lower speed driving in relation to fuel efficiency, health impacts and road safety.		✓	
Publish a Delivery Plan on Climate Change that will require significant changes in driving practice.	✓		

Scotland’s Road Safety Framework: Medium Term = end of **2014**

What has government done -2?

2016 - ISA relegated to lowest “priority level” under Speed

Speed	
Priority level 1	RSF 71 Encourage local authorities to implement any changes indicated by their review of speed limits and continue to monitor networks in order to identify changes where these may support casualty reduction.
	RSF 74 Encourage local authorities to introduce 20 mph zones or limits in residential areas and areas of towns or cities with a high volume of pedestrians and cyclists as set out in the 2015 Good Practice guide on 20 mph Speed restrictions.
	RSF 20 Continue to raise awareness of speed limits and their purpose, including those that apply to different types of vehicles on the different categories of roads.
	RSF 19 Continue to publicise, and educate people about, the risks associated with speeding.
Priority level 2	RSF 21 Continue to support the Safety Camera Programme.
	RSF 72 Consider if the introduction of a Speed Awareness Scheme focused on speeding would be an appropriate contribution to road safety in Scotland.
Priority level 3	RSF 70 Further develop the evidence base to support consideration of a pilot in Scotland to test out the effectiveness of speed limiting technologies.
	RSF 69 Support the voluntary use of Intelligent Speed Adaptation (ISA) and other technologies designed to encourage compliance with speed limits, through engagement with employers and the commercial sector.
	RSF 73 Provide information on the benefits of lower speed driving in relation to fuel efficiency, health impacts and road safety.

Conclusions

- 1967 Scientific approach abandoned
 - No estimates of effect against any of the “priorities”
- “Common sense” approach favoured
 - Failed before, will fail again
- Road safety may be “Everyone’s responsibility”
 - But many of the RSF priorities suggest that the blame culture is back with a vengeance
- Reduction in fatalities is not really a priority

Furthermore ...

- Road safety is everyone's responsibility
 - But no-one can take responsibility for matters outside his or her control
- Government does not appear to be taking its share of responsibility
 - The adoption of autonomous vehicles is a moral imperative, but that is thousands of fatalities into the future

Don't we want to reduce fatalities by 36 per year?

If we do, then:

1. the production of the digital map and
2. the development of the means of keeping it up to date

must be addressed, as a matter of **urgency**,
NOW.

<http://archive.etsc.eu/documents/stars/Oliver%20Carsten%20-%20Speed%20management%20through%20vehicle%20measures%20Intelligent%20Transport%20Systems.pdf>

<http://etsc.eu/intelligent-speed-assistance-new-film-calls-for-safetyasstandard/>