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Does safety research influence policy-making?

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UK

- Well-respected organisation
- Founded around persuading Parliament to require belt-wearing for front occupants
- Close links to UK Department for Transport (DfT)
- Embedded in various advisory bodies
- Sometimes listened to by Ministers
- Arguably had a role in persuading DfT to adopt the “Safe System” approach

What was the PACTS Road User Behaviour Working Party discussing in 1993?

- Car advertising that promoted speed
- Obligation on Local Authorities to fund road safety education of children
- Training of truck drivers — why were instructors not approved?
- Graduated licensing — we advocated it
- Impact of local government reorganisation on road safety



A case study on the influence of research on policy

Our major reports on ISA



Final Report

June 2008

Oliver Carsten, Mark Fowkes, Frank Lai, Kathryn Chorlton,
Samantha Jamson, Fergus Tate and Bob Simpkin

Project Partners:
The University of Leeds and MIRA Ltd



Project Funded by the
Transport Technology and Standards Division
Department for Transport



Speed Limit Adherence and its Effect
on Road Safety and Climate Change

Final Report

Oliver Carsten, Frank Lai, Kathryn Chorlton, Paul
Goodman, David Carslaw and Stephane Hess

October 2008

Project Funded by the
Commission for Integrated Transport
and the Motorists' Forum

ITS



Assisting ISA: effect on behaviour and attitudes

The ISA-UK trials

2 urban trials
(1 private motorists, 1 fleet)

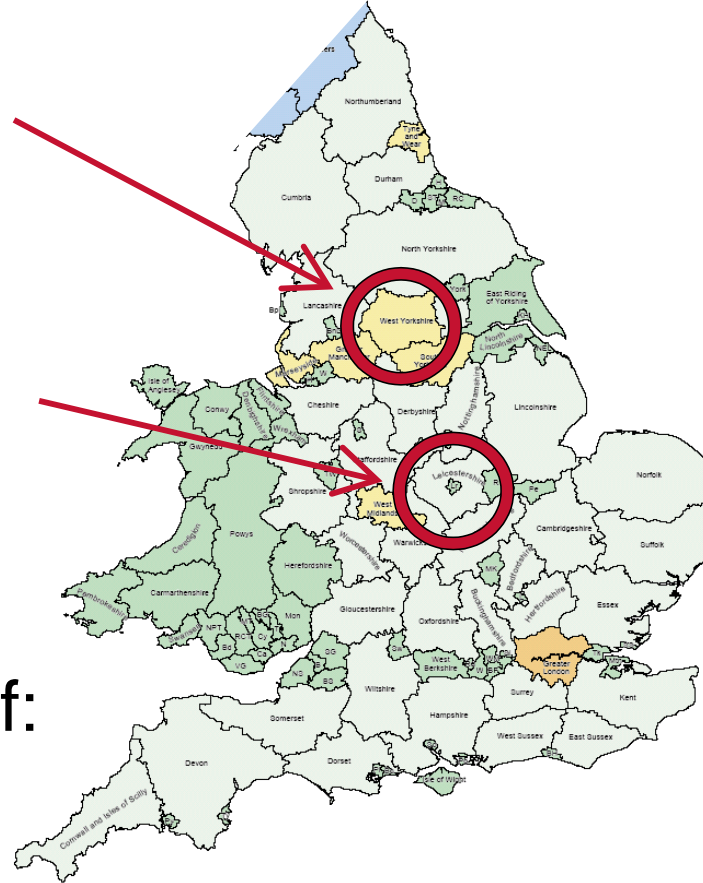
2 rural trials
(1 private motorists, 1 fleet)

79 drivers with a mix of:

Younger / older

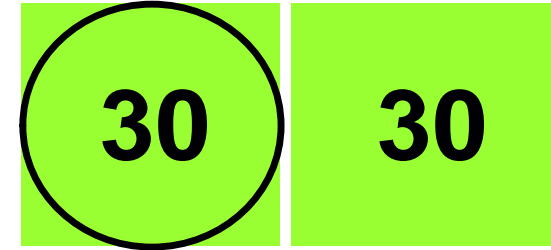
Male / female

Speeding intenders / non-intenders

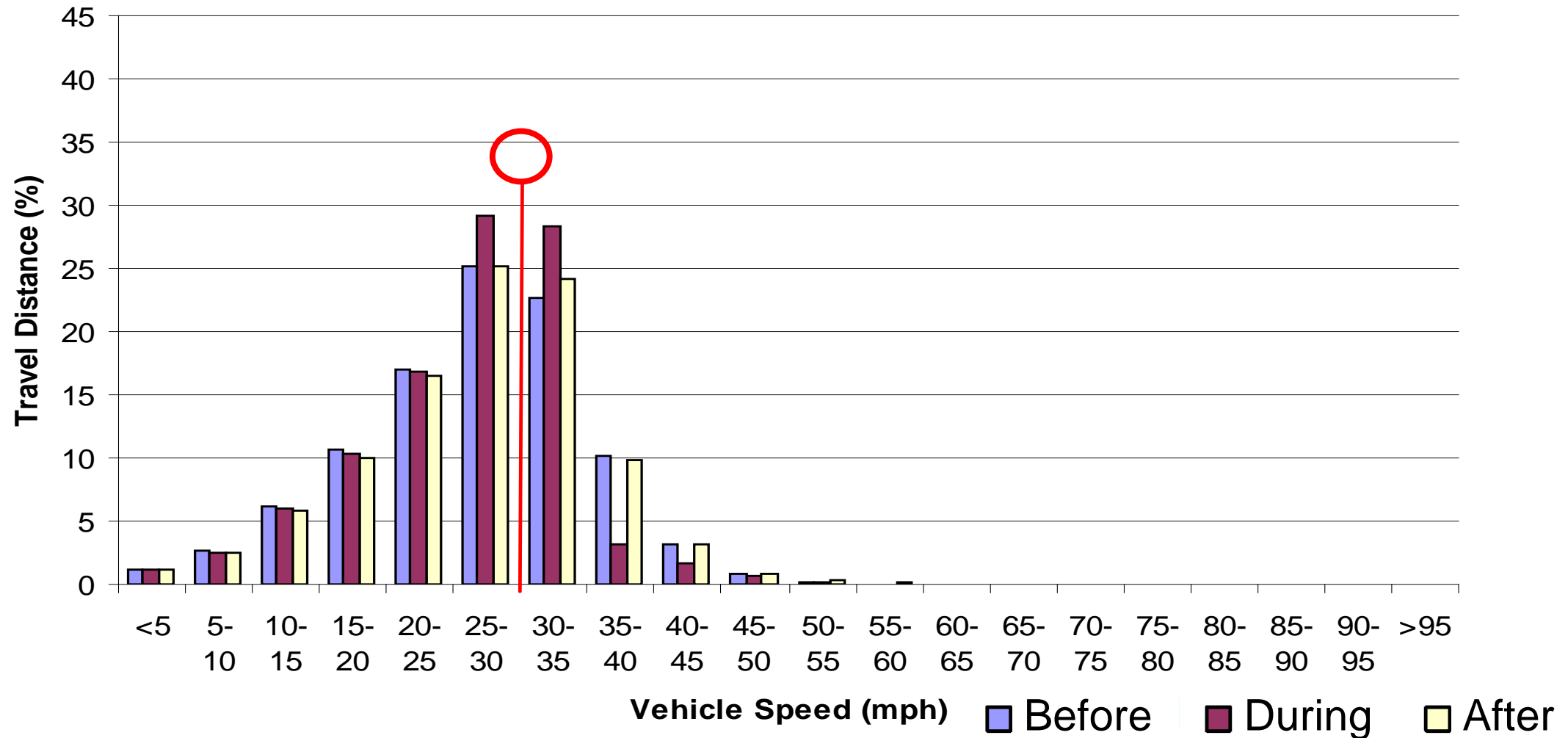


An overridable assisting system

- System that limited speed to the prevailing limit (no acceleration beyond limit)
- Drivers could override at will
- Vibration on throttle pedal to prevent over-throttling



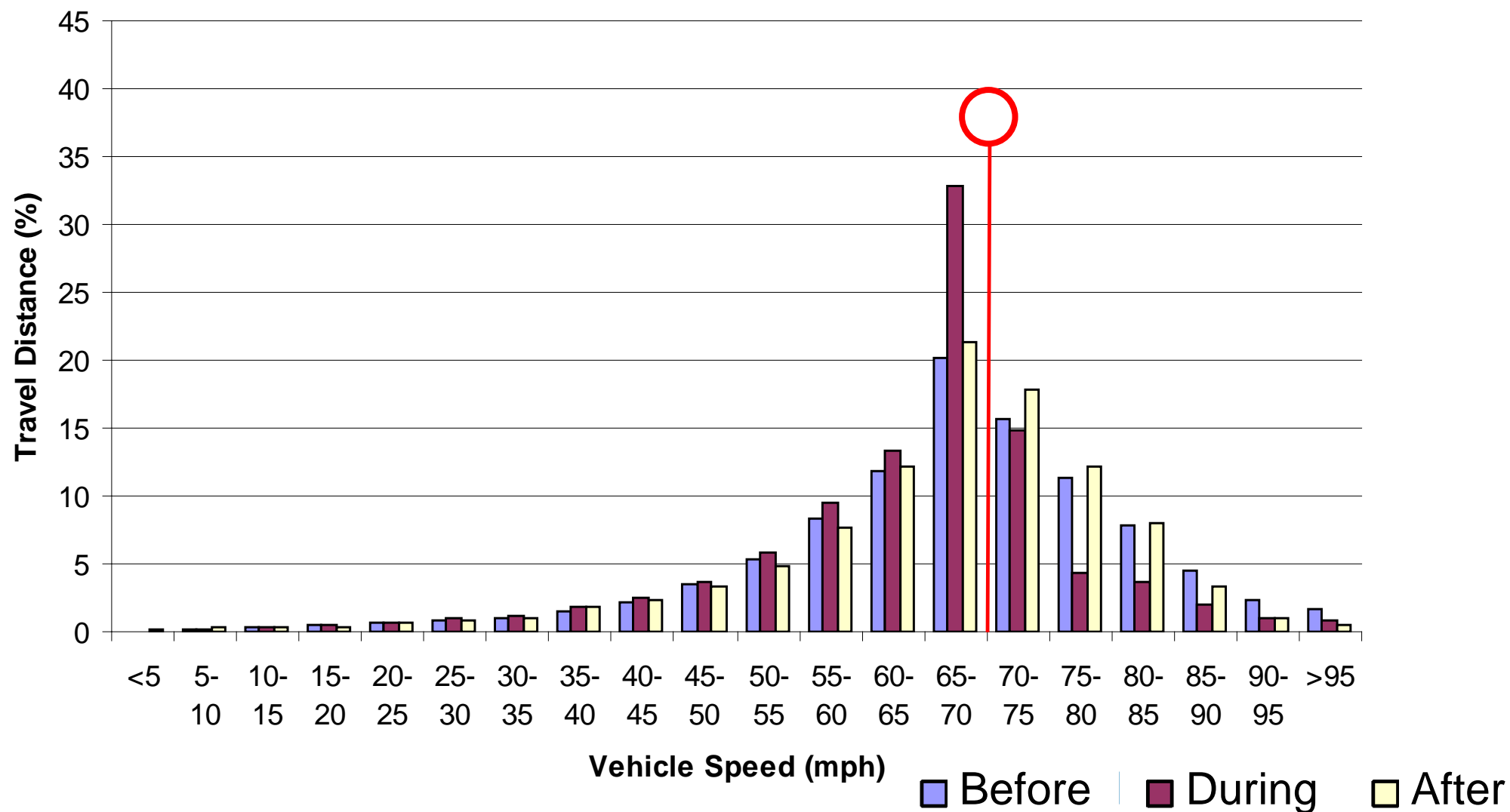
Speed distribution on 30 mph (50 km/h) urban roads



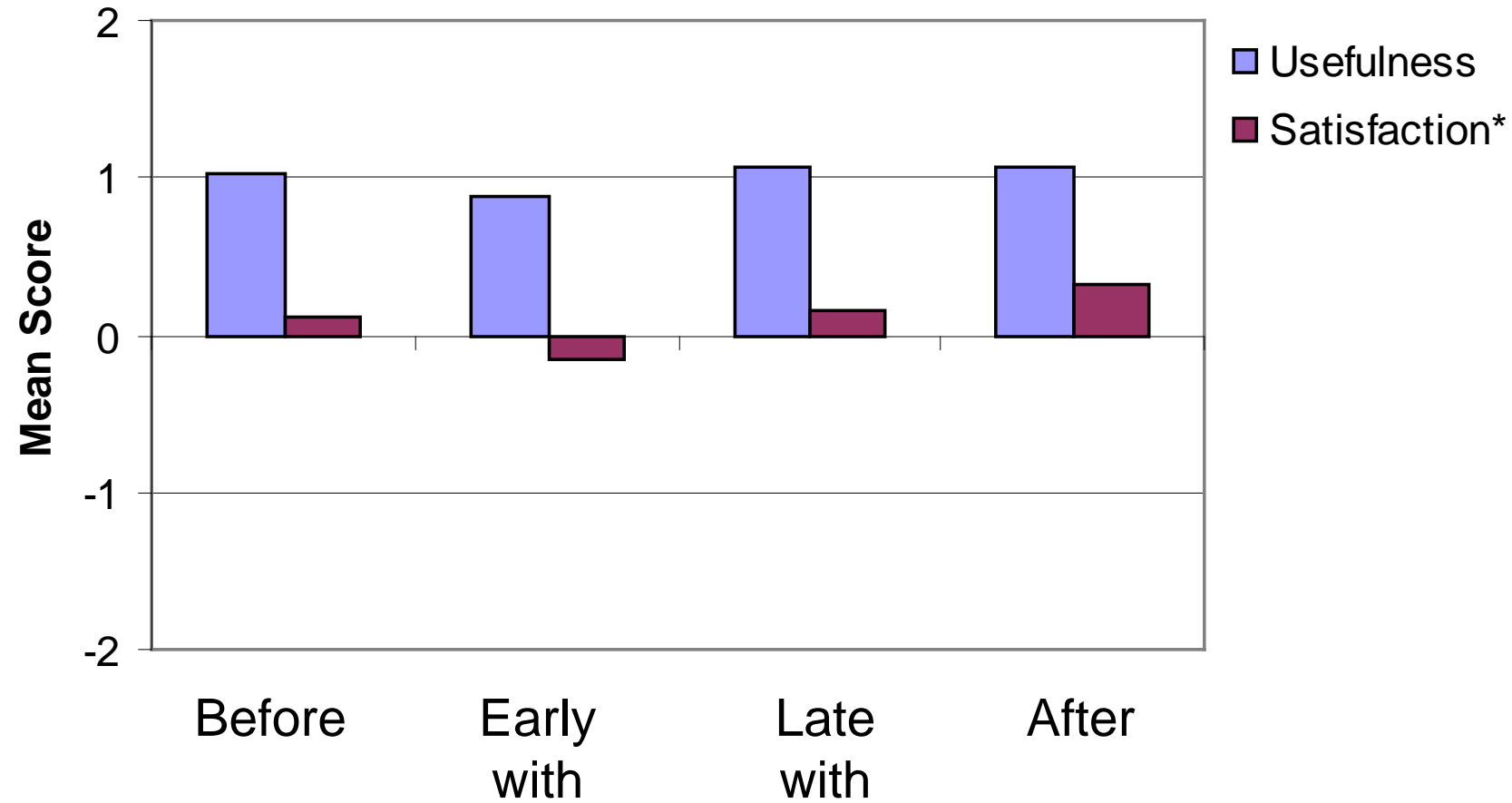
Speed distribution on 70 mph (110 km/h) roads



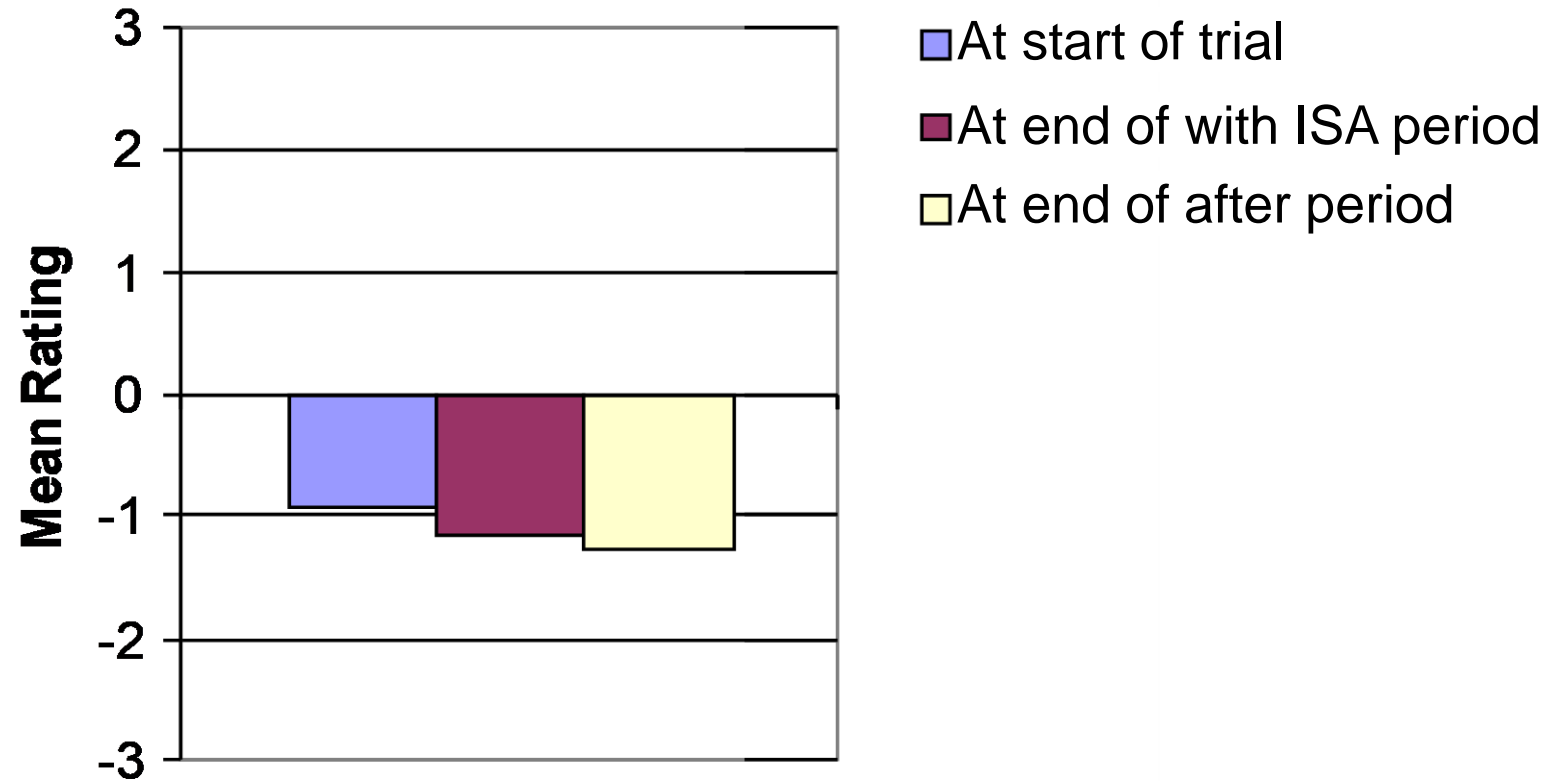
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Acceptability



Intention



Mean intention to speed



Impact Prediction

Method for estimating accident reductions with ISA



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- Based on models from the literature relating speed to crash risk (e.g. Kloeden et al., 2001, 2002)
- These models have been calculated from real-world data
- *They are not drawn from the police reported contributory factors for accidents*

Estimated risk reduction by type of ISA

Estimated Reduction in Injury Accidents for Vehicles with ISA

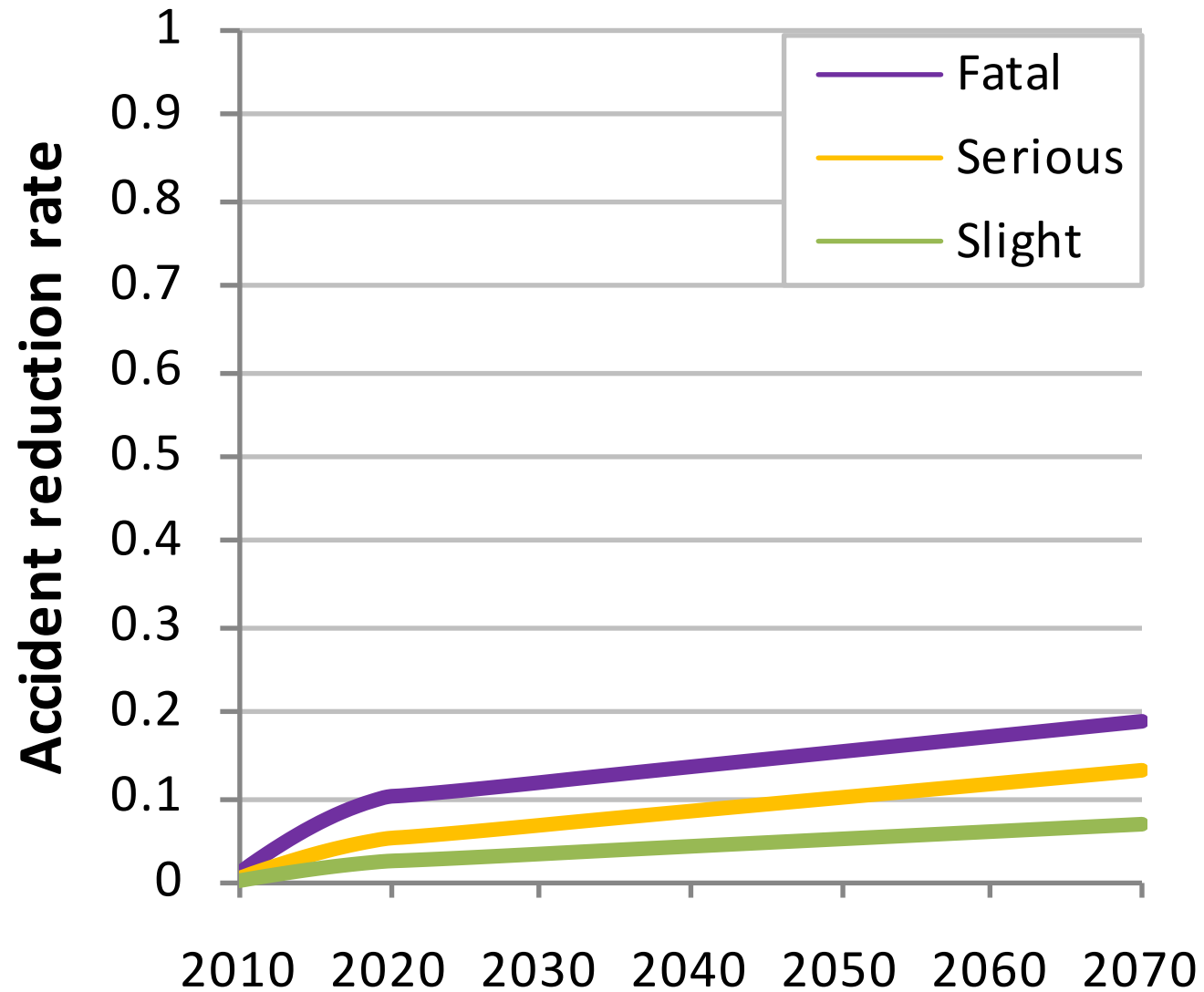
ISA Variant	Reduction
Advisory ISA	-2.7%
Assisting (Overridable) ISA	-12.0%
Assisting (Non-Overridable) ISA	-28.9%

= -50%
for fatal
crashes



What is the importance of regulation?

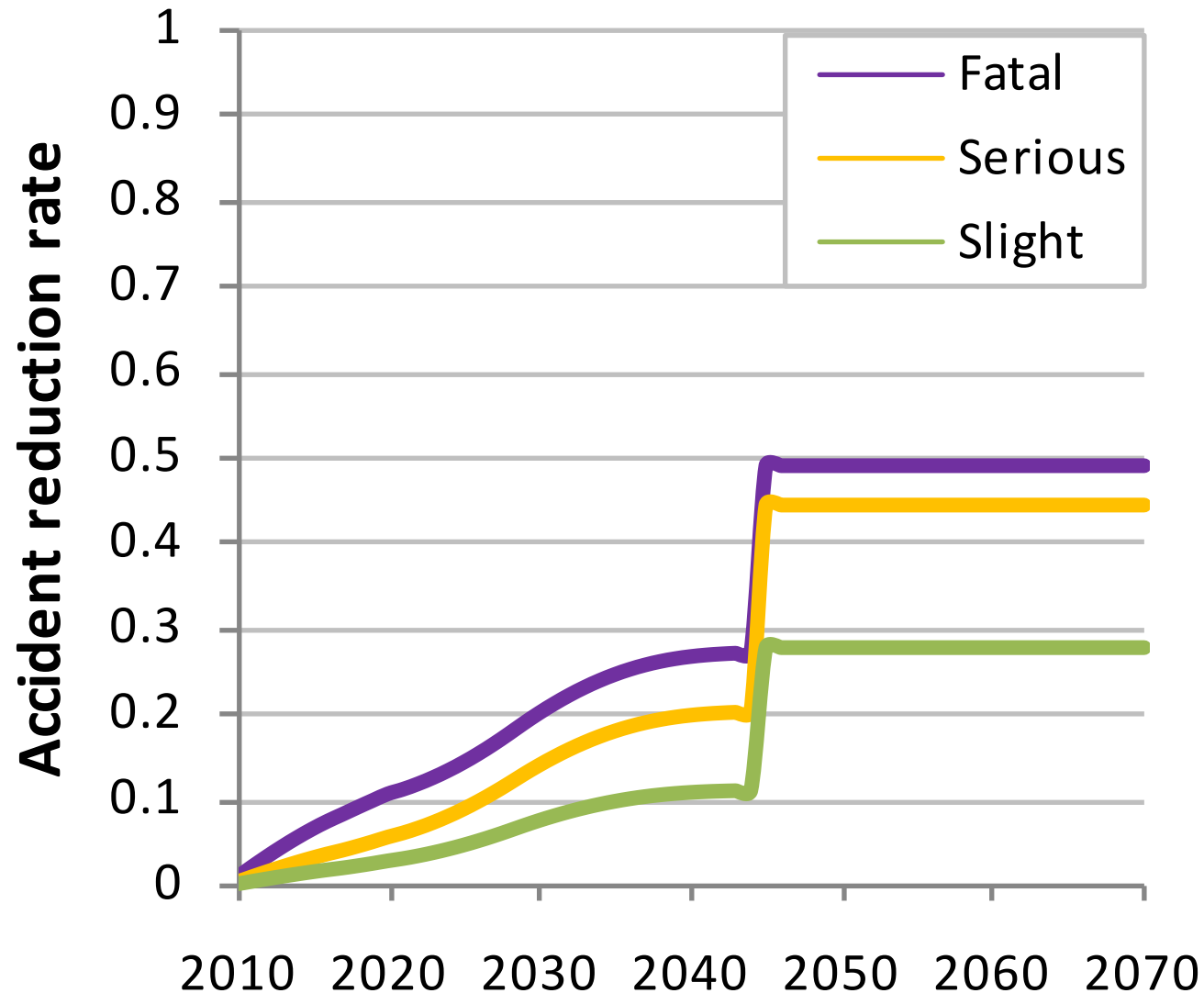
GB accidents saved over time for under the Market Driven scenario



GB accidents saved over time for the Authority Driven scenario



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Interpretation of scenario analysis

- Both scenarios are winners
- The harder the push for ISA and the “stronger” the system, the greater the benefits
- Shows the importance of regulation
- Much of the potential of ISA, e.g. to replace traditional and costly traffic calming, was not counted

Comparison of predicted outcomes

GB Crashes Saved from, 2010 to 2070

	Slight Crashes	Serious Crashes	Fatal Crashes
Market Driven scenario	4%	8%	13%
Regulation scenario	15%	25%	30%

- Benefit to cost ratios (accidents + fuel + CO₂):
 - Market Driven scenario 3.4
 - Regulation scenario 7.4

Recommendations of Commission for Integrated Transport and the Motorists' Forum (Dec 2008)

- Immediate submission of this report and cover paper to the Secretary of State for Transport*
- The Department for Transport should work with the relevant European authorities, vehicle manufacturers, local authorities, insurance companies, representative bodies and others to consider what steps should be taken to support the future availability of the technology and to promote its take up
- A public debate on the future of ISA. The potential benefits and opportunities of ISA should be widely disseminated to companies that can provide effective incentives for its adoption to encourage the establishment of market driven solutions
- Government should engage with employers to ensure they are aware of the overall benefits of ISA and consider the fitment and use of this technology within their duty of care and work related road safety policies, when it is available
- The Department for Transport should move immediately to put in place the infrastructure necessary to provide the digital maps required to operate an ISA system
- The Department for Transport should look at opportunities to equip its own fleet with ISA and act as a champion with other Government Departments and public bodies. Its role as a champion should focus on engaging Government Departmental support for the concept and encouraging Departments and Agencies with large workplace driving activity to implement ISA in their vehicle fleets
- Fleet operators and vehicle rental companies should be appraised of the benefits of ISA and encouraged to introduce ISA into their own fleets
- Government should examine whether ISA in any form has a role to play in supporting drivers convicted of dangerous driving where speed is a factor or as a benefit to supporting vehicle access for younger drivers

*



Geoff Hoon



Outcome

What happened next?

- Nothing!

A quote from a Dutch safety expert about ISA

“The best system we never had.”

Standards for new vehicles in Europe

- Minimum safety standards for new vehicles are specified in the *General Safety Regulation* (GSR) and *Pedestrian Safety Regulation* (PSR)
- Last revision of GSR was in 2009. This required that:
 - ESC was fitted on all cars and trucks from 2014
 - AEB and LDW were fitted on all large vehicles from 2015
- The responsible directorate in the European Commission is DG GROW
- Legislative procedure is co-decision of the Commission, Parliament and Council

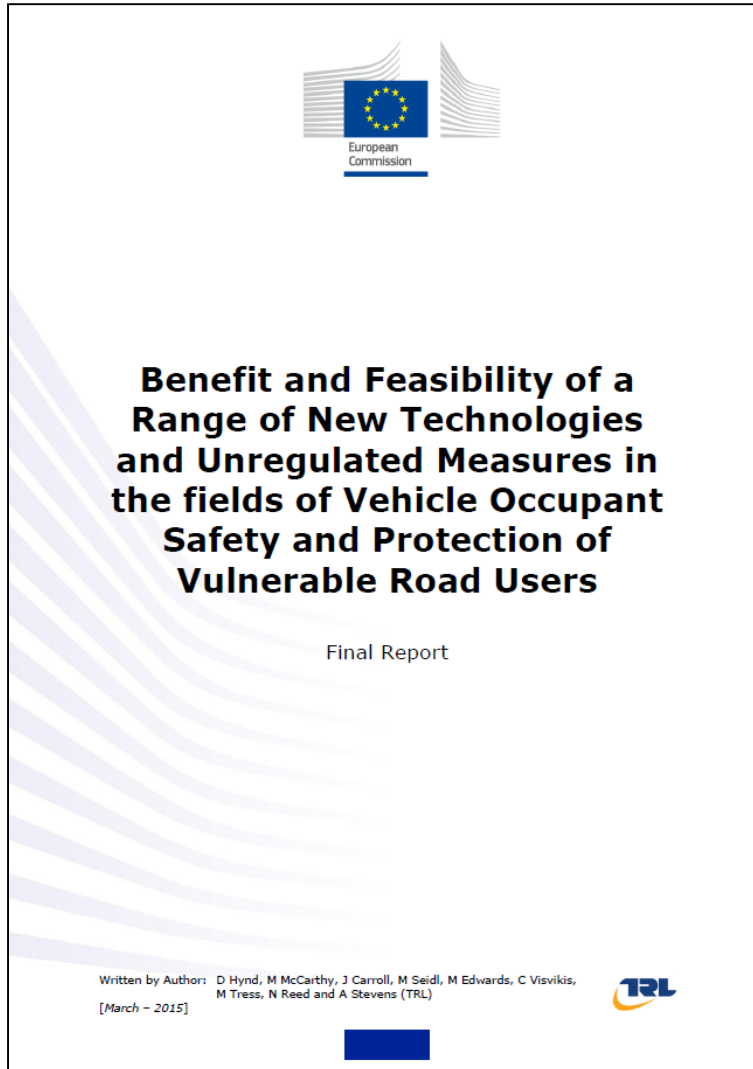
-
- Sets minimal safety standards for new vehicles sold in Europe
 - General Safety Regulation (GSR) study to consider the potential of *crash avoidance* technologies to supplement *crash mitigation* technologies (published March 2015)
 - Sets the European regulatory agenda for 2016 onwards
 - Actual outcome in terms of legislation is co-decision of Commission, European Parliament and Council

Study for DG GROW on what should be included in new vehicle regulation

Question asked of the study:

- What new technologies could be cost-effective in improving vehicle safety?

The GSR study report, March 2015



Active Safety

“Based on the evidence reviewed, the following measures were considered to be likely to be cost-beneficial and could on that basis be taken into consideration:

- Enhanced AEB with collision mitigation
- Intelligent speed adaptation
- Lane keep assist
- Reversing detection and reversing camera systems
- Emergency brake light display”

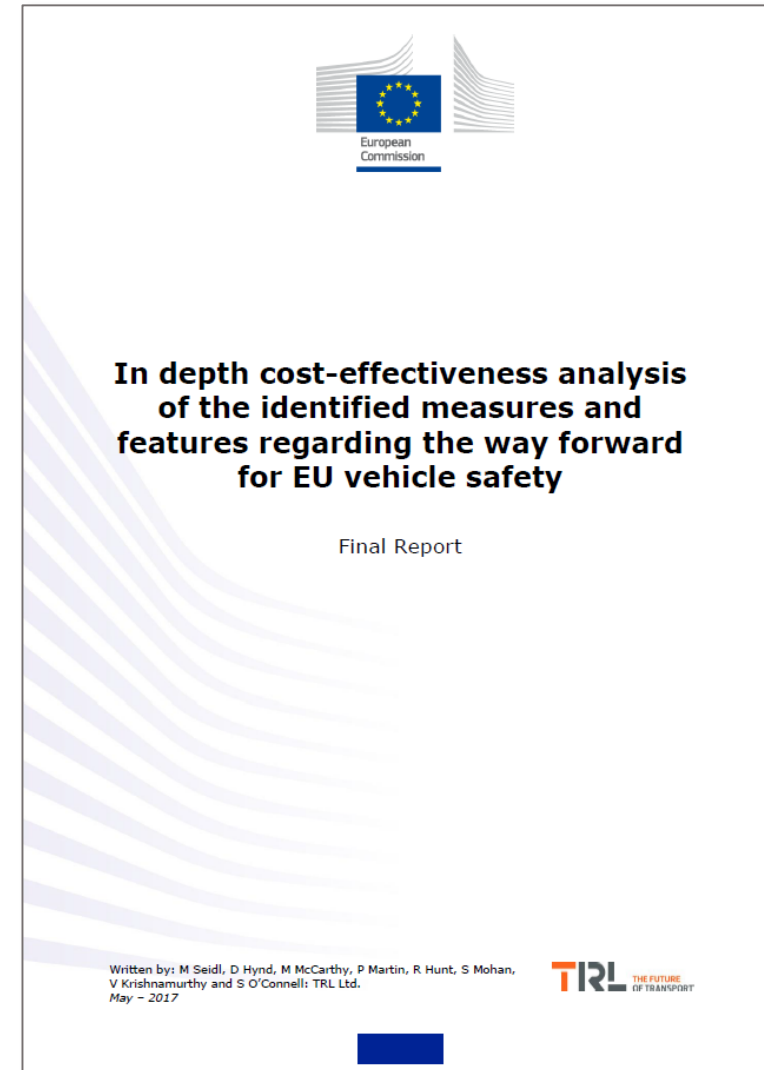
GSR report

Active Safety

Code	Measure	Feasible?	BCR	Legislate?	Recommendations/Notes
AEB	Expansion and enhancement of AEB, BAS and LDW to avoid or mitigate collisions, including inter-urban, city and those with VRU	✓	~1	●	Greatest casualty benefit for AEBS is for M1 then N1 vehicles, although cost-benefit less clear than for N2/N3. System cost estimates suggest 'city safety' systems may be getting to the breakeven cost point
ISA	Speed limiters controlled by road speed limit (speed assist, intelligent speed adaptation)	✓	>1	●	BCR>1 for 6 Member States, for voluntary activation (switched on/off by the driver) and mandatory activation, and public acceptability of the systems considered to be growing. BCR higher for mandatory activation system, but both have positive BCR

GSR2 study, May 2017

- TRL carried out a further study (GSR2)
- More detailed investigation of costs and technology packages

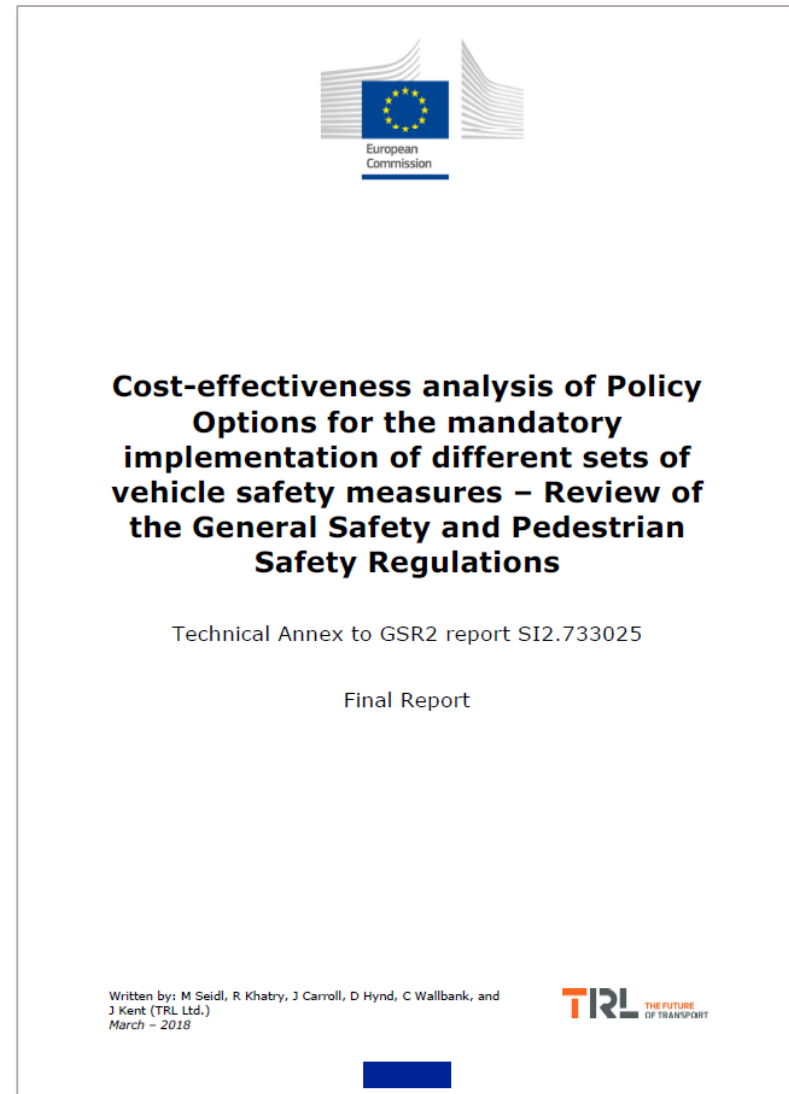


And then an even more detailed version of the cost-effectiveness study, March 2018



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- Final report
- + detailed annex on methodology



The announcement of the new policy proposals, May 2018

- “Third Mobility Package”



The screenshot shows the European Commission website. At the top, there's a header with the European Commission logo and the text 'MOBILITY AND TRANSPORT'. Below this is a navigation bar with links: Home, Transport Modes, Transport Themes, Media Corner, and Facts & Fundings. The main headline reads 'Europe on the Move: Commission completes its agenda for safe, clean and connected mobility'. The date '17/05/2018' is displayed below the headline. A sub-headline states: 'The Juncker Commission is undertaking the third and final set of actions to modernise Europe's transport system.' Below this is a large graphic with a geometric pattern of triangles in shades of blue and green. The text 'Europe on the Move' is prominently displayed, followed by 'Safe, connected and clean mobility' and the hashtag '#MobilityEU'. At the bottom, a paragraph of text explains the context: 'In his [State of the Union address of September 2017](#), President **Juncker** set out a goal for the EU and its industries to become a world leader in innovation, digitisation and decarbonisation. Building on the previous 'Europe on the Move' of [May](#) and [November 2017](#), the Juncker Commission is today putting forward a third and final set of measures to make this a reality in the mobility sector. The objective is to allow all Europeans to benefit from safer traffic, less polluting vehicles and more advanced technological solutions, while supporting the competitiveness of the EU industry. To this end, today's initiatives include an integrated policy for the future of road safety with measures for vehicles and infrastructure safety; the first ever CO₂ standards for heavy-duty vehicles; a strategic Action Plan for the development and manufacturing of batteries in Europe and a forward-looking strategy on connected and automated mobility. With this third 'Europe on the Move', the Commission is completing its ambitious agenda for the modernisation of mobility.'

Third mobility package



Safe mobility

While road fatalities have more than halved since 2001, **25,300 people still lost their lives on EU roads in 2017 and another 135,000 were seriously injured. The Commission is** therefore taking measures with strong EU added-value to contribute to safe roads and to a Europe that protects. The Commission is proposing that new models of vehicles are equipped with **advanced safety features**, such as advanced emergency braking, lane-keeping assist system or pedestrian and cyclists' detection systems for trucks (see full list [here](#)).

The European legislative is near completion, March 2019



- The package of new measures in (just about) approved
- The UK press notices it



For more
Weekly Little Helps
turn to page 2

TESCO
Every little helps

European Transport Safety Council (ETSC)

[ABOUT](#) ▾[NEWS](#) ▾[PUBLICATIONS](#) ▾[EVENTS](#) ▾[PROJECTS](#) ▾

iSAFER Intelligent Speed Assistance for European Roads

🔍 Type & Hit Enter



Illegal and inappropriate speed is the single biggest contributory factor in fatal road crashes. It increases both the risk of a crash happening and the severity of injuries that result. Managing speed is therefore the most important measure to reduce death and injury on our roads.

The objective of the iSafer campaign is to contribute to reducing speed-related road deaths and injuries through the identification and promotion of best practice. The project includes a special

focus on Intelligent Speed Assistance (ISA) and promoting its use at European and national level.

Briefing

How does ISA work, and how could it boost road safety? Find out more on our web page dedicated to ISA technologies.

[Go](#)

The campaign will include:

- Seminars at a national and European level, aiming to raise awareness of the risks of speeding, and exploring the best strategies for introduction of ISA.
- A policy paper on speed, looking at priorities for reducing deaths on our roads related to speed, focussing primarily on ISA.
- A ranking showing the 'state of play' of digital maps and ISA implementation in the different EU Member States.
- Six fact sheets on speed that will showcase best practice in each of the following areas: behaviour, vehicles, in-vehicle technology, infrastructure, speed limits.
- A Speed Monitor newsletter three times a year which includes monitoring of EU and national policies that have an impact on speed related road safety within the 28 EU countries.



The ETSC video



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MailOnline

The spy in your car! EU's speed-limiter system has a 'black box' recorder to track your every move

- New cars in EU and UK to have Intelligent Speed Assistance limiters from 2022
- Campaigners fear devices allow police, insurers and hackers to spy on people
- The Department for Transport has backed the introduction of the technology

The technology will have to be installed in all new cars from May 2022 and in existing models two years later. Other features include automatic emergency braking and a system which keeps a vehicle in the centre of a traffic lane.

The EU Commission claims the mandatory devices could help avoid 140,000 serious injuries by 2038.

Technology improves road safety with intelligent speed assistance



Conclusions

- Sometimes research can have influence
- The EU process of synthesising the research evidence to prepare policy proposals is to be applauded
- Of course that does not remove politics completely
- Researchers need to engage with policy-makers



Thank you for your attention!

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