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Why Intelligent Speed Assistance (ISA) is a must

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Speed

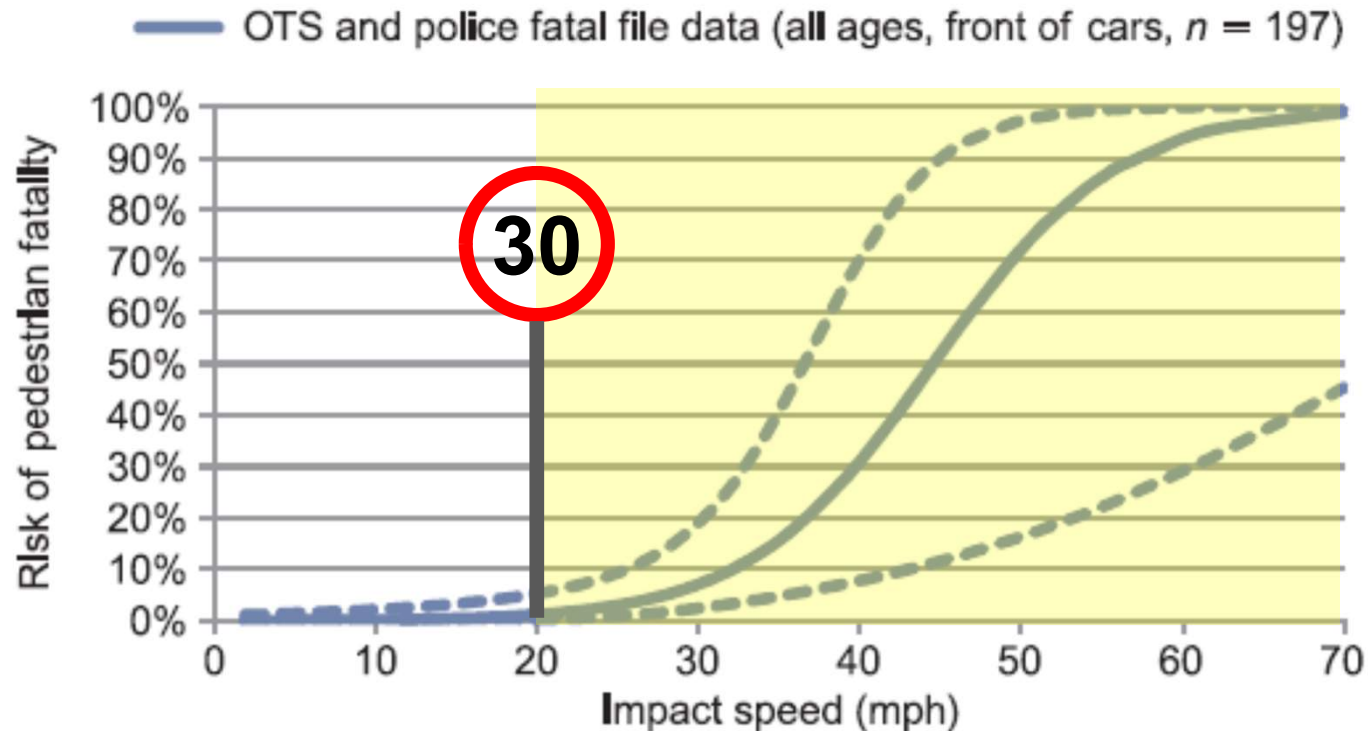


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“Speed remains a very important risk factor. It has a greater effect on the number of accidents and injury severity than almost all other known risk factors.”

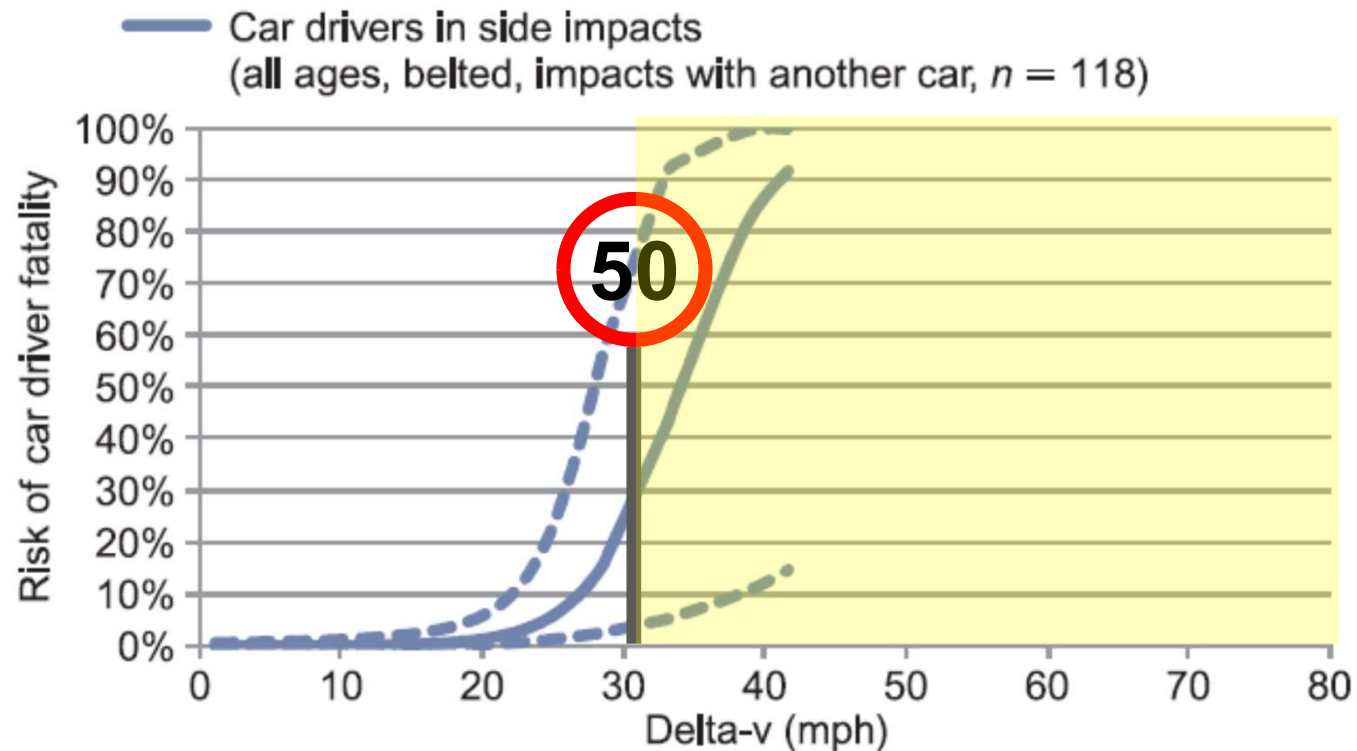
Rune Elvik, *The Power Model of the relationship between speed and road safety: Update and new analyses* (2009)

Collision speed and the risk of pedestrian death



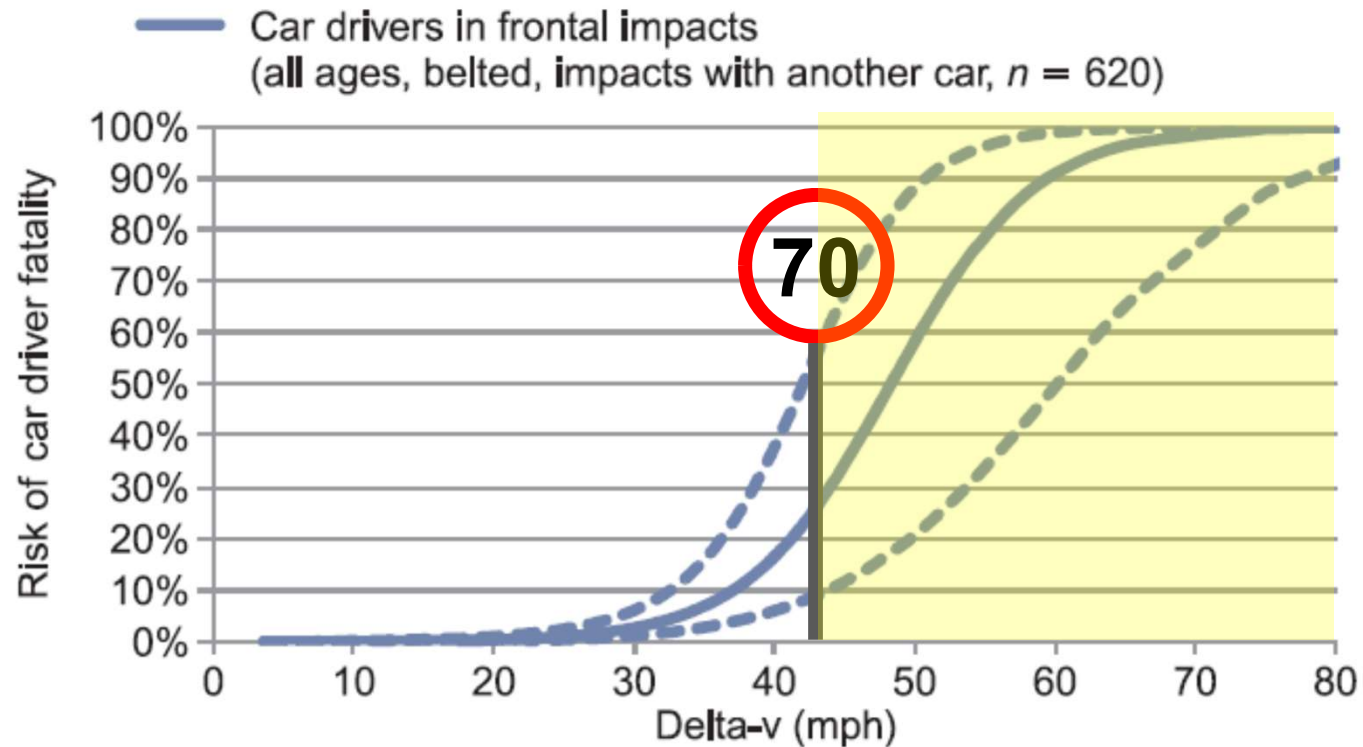
Source: UK DfT, 2010
(dashed lines show 95% confidence interval)

Collision speed and the risk of car driver death in side collisions



Source: UK DfT, 2010
(dashed lines show 95% confidence interval)

Collision speed and the risk of car driver death in frontal collisions



Source: UK DfT, 2010
(dashed lines show 95% confidence interval)

Main types of ISA

Advisory



Assisting



Non-Overridable



Estimated risk reduction for GB by type of ISA

ISA Type	Reduction in Injury Crashes	Reduction in Serious Crashes	Reduction in Fatal Crashes
Advisory ISA	-3%	-4%	-5%
Assisting (Overridable) ISA	-12%	-17%	-23%
Non-Overridable ISA	-29%	-40%	-49%

The balance between safety and public acceptance argues for the middle ground.



Why default-on

Requiring the driver to enable ISA at every ignition on will:

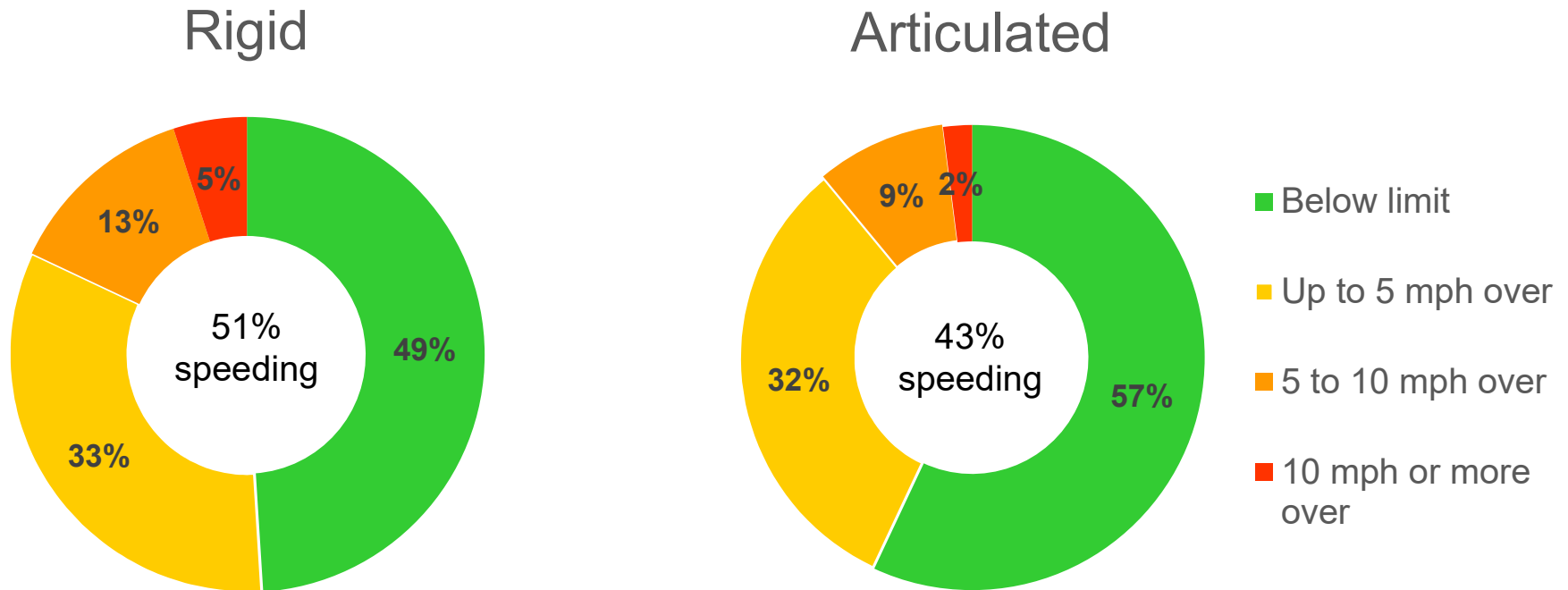
- Cause annoyance to most users
- Encourage those who need it most (speed violators) not to use it
- Almost certainly result in very substantially reduced effectiveness

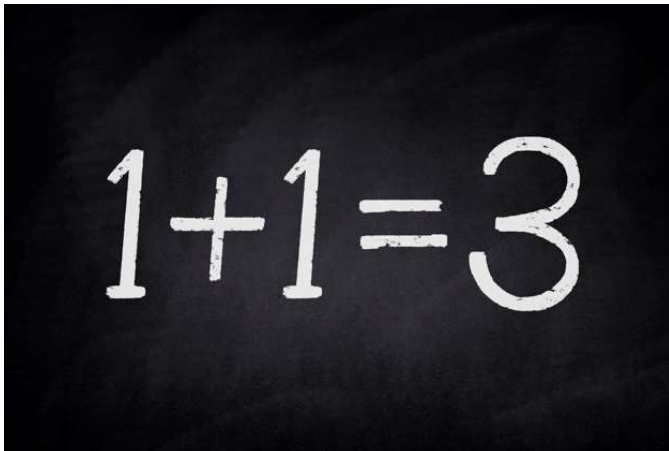
It's strange that we would propose to install a safety system that is by default not enabled

Do you want to be protected?

Do we need ISA for all major vehicle categories?

Heavy truck compliance with 30 mph urban speed limit in GB, 2016





With ISA, top speeds are curtailed. So:

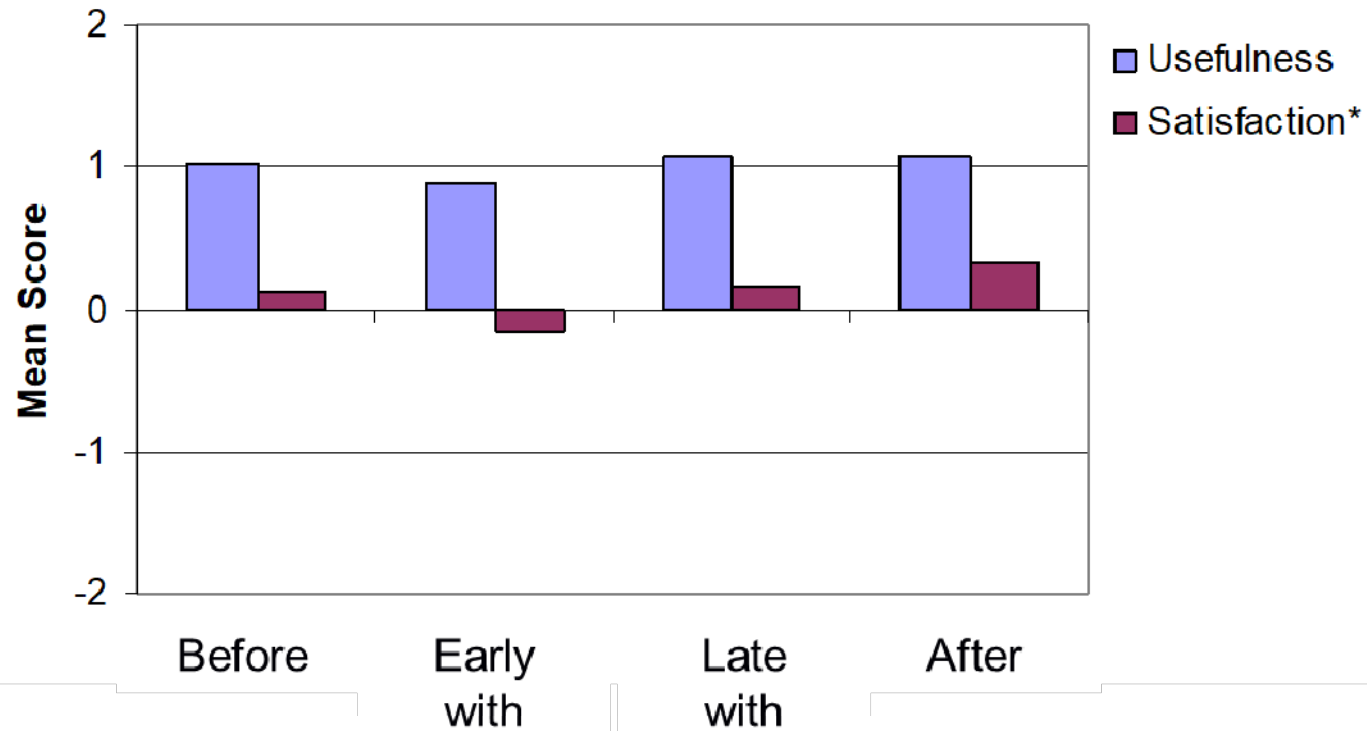
- AEB will have more opportunity to prevent crashes
- When there are crashes, occupant protection systems will have a greater chance of preventing harm

“It’s not technically mature”

- Assisting ISA is already available on many production vehicles:
 - Ford S-Max and Galaxy
 - New Ford Transit
 - Volvo XC60, XC90, S90, V90 (no link to map)
- The better systems use both a digital map and a camera for information on limit
 - There is a standardised process for transfer of map data from road authorities to the map-makers
- The 2018 VW Touareg even responds to ***upcoming*** limits

“Drivers don’t like it”

Acceptability of Assisting ISA in ISA-UK trials



Highly Automated vehicles will have to have ISA



Text of Annex 3: Guidelines on Human Machine Interface for Automated and Connected vehicles:

“When operating under vehicle control (vehicle as the driver), vehicles **shall obey all relevant regulations**, including local regulations. This would include, for example, **speed limits (fixed, variable and dynamic)**, access restrictions, lane restrictions, traffic signal instructions, ...”

Conclusions



- ISA is almost certainly the most effective safety system currently available
- The technology is mature
- We need to implement it in the form of a **default on, assisting** system
- Acceptability of that system is high
- It should be installed on cars, vans, light trucks, heavy trucks and buses



Thank you for your attention!
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