

How to never get a speeding fine again, and maybe save a child's life

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THE CONVERSATION

Intelligent speed assist



1 Advisory:

- The European Union mandated advisory ISA in 2022 on all new cars [1].
- Alerts the driver through sound or visual cues when the legal speed limit is being exceeded.
- Effective for reducing up to 8% of serious injuries and 11% of deaths on roads [2].

2 Supportive:

- Prevents the vehicle from exceeding the speed limit by restricting acceleration when the legal speed limit is reached
- Can be over-ridden by the driver by pressing firmly on the accelerator pedal.
- Effective for reducing up to 25% of serious injuries and 32% of deaths on roads [3].



At no point does ISA operate the brakes, so the reduction in the car's speed is gentle and progressive.



A forward-facing camera on the car detects the speed limit sign at the side of the road and this is combined with GPS-mapped speed limit data.



The technology is estimated to cost only \$300-\$400 per car [4]. The camera and electrical components are used for multiple car safety systems, including autonomous emergency braking.



Key to the success would be having the technology "on by default" when the engine starts.

Benefits:

ISA could help motorists to totally avoid speeding and therefore:



Reduce emissions and fuel use



Improve traffic flow



Reduce crashes, injuries and deaths



Totally avoid speeding fines!

References

- [1] European Council, Council of the European Union. Safer cars in the EU. Available from: <https://www.consilium.europa.eu/en/press/press-releases/2019/11/08/safer-cars-in-the-eu/>
- [2] Cost Benefit Analysis of Intelligent Speed Adaptation. In Proceedings of the 2010 Australasian Road Safety Research, Policing and Education Conference, Canberra, ACT, Australia, 31 August-3 September 2010; p. 10
- [3] Hjalmdahl M., Almqvist S., Varhelyi A. Speed regulation by in-car active accelerator pedal: Effects on speed and speed distribution. IATSS Res. 2002;26:60-66. doi: 10.1016/S0386-1112(14)60044-3.
- [4] European Commission, European Union. In depth cost-effectiveness analysis of the identified measures and features regarding the way forward for EU vehicle safety.

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What if our cars didn't allow us to speed? Or, at least, strongly encouraged us not to speed?

We could help motorists avoid speeding—and therefore reduce [emissions and fuel use](#), improve [traffic flow](#), reduce [crashes](#), lower [insurance costs](#), make streets [feel safer](#) to walk and cycle—and totally avoid speeding fines.

Reducing speeding is [crucial](#) if we are to reduce the rising road toll. More than [1,200 people were killed](#) on Australian roads in the past year.

It's no wonder Australians want this technology—[81%](#) believe "intelligent speed assist" technology is important for making roads safer.

Technology to stop speeding

"Intelligent speed assist" is the name of the [low-cost](#) technology that could save lives every year by reducing speeding.

The idea of helping drivers to avoid speeding is more than [100 years old](#). But early speed-limiting technologies proposed a top speed limit (similar to [the way e-scooters are regulated](#) in Australia), rather than allowing motorists the option to break the speed limit.

If we don't do intelligent speed assist, what's the alternative? Currently, we must constantly monitor [speed limits](#) and adjust our speed accordingly to avoid speeding. That means looking often at our

speedometers.

There is [some research](#) to suggest continually taking our eyes off the road to review our speedometer could be dangerous.

Given how often speed limits can change on a route, and that we all make mistakes, it's no wonder speeding is so common.

Will it work?

Installing intelligent speed assist in all cars could prevent at least [8%](#) and up to [19%](#) of all crashes Australia-wide. This represents up to 200 lives saved per year.

A NSW Center for Road Safety [trial](#) found advisory intelligent speed systems reduced speeding in 89% of vehicles, across more than 1.9 million kilometers of testing.

Intelligent speed assist is not yet a perfect system. Hurdles to overcome include:

- different speed sign [coverage](#) and designs from state to state
- maintaining an accurate map of speed limits across Australia for GPS
- potential over-reliance on the feature in varying driving conditions, such as wet weather, corners and so on.

But shouldn't we be doing everything we can to overcome these hurdles, to make such a life-saving, child-saving technology work as well as it can?

What's already been done?

[Legislation](#) in 2022 has made intelligent speed assist technology mandatory for all new cars sold in the European Union.

In Australia, if you drive a relatively new car, you may already have the option of intelligent speed assist. For example, if you drive a new [Ford](#), you can activate its Intelligent Speed Limiter.

Intelligent speed assist adds to a growing list of in-vehicle safety technologies, such [auto emergency braking](#), [lane keep assist](#) and [blind spot monitoring](#). We know [older vehicles](#) that lack such technologies are involved in more crashes.

What about older vehicles?

Cars have an average age of [10.4](#) years. So [retrofitting older cars](#) with intelligent speed assist technology has been [trialed](#). Despite the European [legislation](#), there's no expectation of a wide-scale retro-fitting program.

It is common, though, to retrofit fleet cars such as government and company vehicles with intelligent speed assist. This [improves fleet safety](#) and distributes new technologies when these vehicles are sold on the second-hand market.

'But I only speed a little bit'

[Research](#) shows most people think they're better-than-average drivers. More than [1 in 4](#) Australians think it's ok to speed if driving "safely."

But you can't speed and drive safely. For every 1km/h increase in speed, there is a [4%](#) increase in fatal crashes. If everyone was to increase their speed by just 1km/h, we could expect an [extra 48 deaths](#) a year.

Road deaths remain the [number one](#) killer of children in Australia and speed is the [most common](#) factor in a crash.

Current measures to reduce speeding haven't gone far enough. Despite [2 in 3](#) Australian drivers admitting to speeding every week, only [1 in 10](#) got a speeding fine last year.

If you are worried about the government losing out on revenue, don't. Road traffic crashes cost the Australian economy [A\\$27 billion](#) a year. Speed camera fines generate just [\\$1.5 billion](#) a year.

Three actions to get started

Intelligent speed assist is not a silver bullet. But it is one of five crucial actions that can make zero [road](#) deaths possible. More than [200 cities](#) around the world have already achieved this goal at least five times for a calendar year since 2009.

Here are three actions to get started:

1. install intelligent speed assist in all all [public buses](#) and government fleet cars—the NSW government fleet, for example, has [25,000 cars](#)
2. require intelligent speed assist for a 5-star [ANCAP](#) safety rating
3. adopt the EU [legislation](#) in Australia to require intelligent speed assist in all new cars.

We have an urgent problem, we have the technology, we have the evidence it works, so what's stopping us using it to save lives on our roads?

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