MANDATORY ESC

The lead came from Victoria in February 2007, when Premier John Brumby unveiled that State's *"arrive alive 2008-2017"* road safety strategy. A cornerstone of this program is the compulsory fitment of electronic stability control (ESC) to all new cars registered in Victoria from January 2011.

At a Geneva meeting in June 2008 the UN World Forum for Harmonization of Vehicle Regulations (UNECE WP29) adopted a Global Technical Regulation (GTR) on ESC for light duty vehicles and passenger cars.

In adopting the new international regulation Australian Transport Minister Anthony Albanese said: "International research has found this technology has the potential to be the greatest innovation since the seatbelt in saving lives and making our roads significantly safer".

Global ESC

Overseas research shows that ESC can reduce dry-road accidents by more than 20 percent, but its benefits are even more significant in wet and icy conditions, where the accident reduction rate increases to between 30 and 40 percent.

Despite these positive statistics the installation rate of ESC in new European cars is below 50 percent and only 20 percent of the car fleet is equipped with ESC. This life saving technology has been available for more than 10 years and EEC lawmakers are dissatisfied with the lack of public acceptance – hence the move towards compulsory ESC.

With mandatory ESC the official estimate is a saving of around 4000 lives in the EEC alone.
The USA's National Highway Traffic Safety Administration predicts that up to 9600 US lives could be saved each year if all automakers included electronic stabilization systems as standard equipment.
The USA has mandated ESC in all new cars from 2012.
Transport Canada also has a 2012 introduction date and has decided to eliminate consumer confusion over automotive stability control systems. The department has asked carmakers to drop all their proprietary handling aids' names — ESP, VSA, DSC and all the other acronyms – in favour of the acronym used in the European 'ChooseESC!' campaign.

Four times World Rally Champion Sébastien Loeb has given the 'ChooseESC!' campaign a strong endorsement and has conducted demonstrations that prove the safety benefits of ESC.
At a demonstration Sébastien Loeb told the international motoring press that no one can react as fast as ESC – not even the great man himself.
"ESC controls the movement of the vehicle 25 times a second and that is faster than any of us," said Sébastien Loeb.
"Controlled slides are part of rallying, but when I am driving on public roads with my family, I want to avoid skidding at all costs, which is why I would always choose ESC for my car."
Sébastien Loeb demonstrated that even with his wealth of rallying experience he could not provoke a skid in a Citroen C2 when its ESC was engaged.

What is ESC

ESC is an extension of ABS anti-lock and traction control systems. ABS provides wheel speed sensors and the traction control system contributes an accumulator that can apply the brakes without brake pedal depression. The ESC components include a yaw-rate sensor, a lateral acceleration sensor, a steering wheel position sensor, and an upgraded electronic control unit (ECU).
The ESC sensors tell the ECU how rapidly and how far 'out of shape' a vehicle is getting, at which point the ESC control applies selective braking to one or more wheels to restore equilibrium.

Generally, an understeering situation is remedied by rear wheel braking and an oversteer situation, by front wheel braking. The ESC system may also dictate a reduction in engine power. Of course, the ESC system relies on tyre grip to carry out its braking actions, so it's not a panacea for dopey driving.

The Australian Scene

More and more car and 4x4 makers are including ESC in at least some models, but the great concern is that the increasing popularity of utes limits the number of ESC-equipped new vehicles in Australia. Only the 2009/2010 Triton 4x4 ute has ESC, as an option.

Australia's leading vehicle safety organisation, the Australasian New Car Assessment Program (ANCAP), has called on manufacturers to make safer commercial vehicles.

The Department for Transport, Energy and Infrastructure's Director of Road Safety, Martin Small, said the crash testing program would now focus on a range of light commercials to gain better data on this important automotive market sector.
"There is a massive light commercial vehicle fleet in Australia and there is a need to find out how much protection these vehicles offer," Mr Small said.
ESC has been an ANCAP requirement for a five-star safety rating from the beginning of 2008.

