# Why a Safe System?

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Zero Road Deaths and Serious Injuries:
Leading a Paradigm Shift to a Safe System

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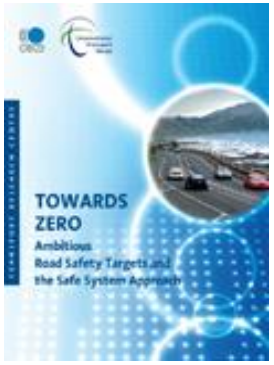
# A Global Opportunity for A Visionary Approach

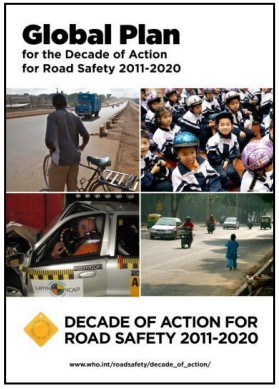
There is now a strong global mandate for the Safe System approach to road injury prevention.

The Safe System Approach was first endorsed by the OECD/ITF in their 2008 Towards Zero report and has been used to formulate the structure and recommendations of the Global Plan for the United Nations (UN) Decade of Action (2011-2020).

Implementation of the Global Plan has been endorsed by both the 2nd High Level Global Conference on Road Safety held in Brasilia last November and by the UN General Assembly in April (A/Res/70/260).

The inclusion of road safety in the Sustainable Development Goals for health and cities with a target to halve the number of global deaths and injuries from road crashes by 2020 is the UN's strongest ever commitment to road injury prevention.



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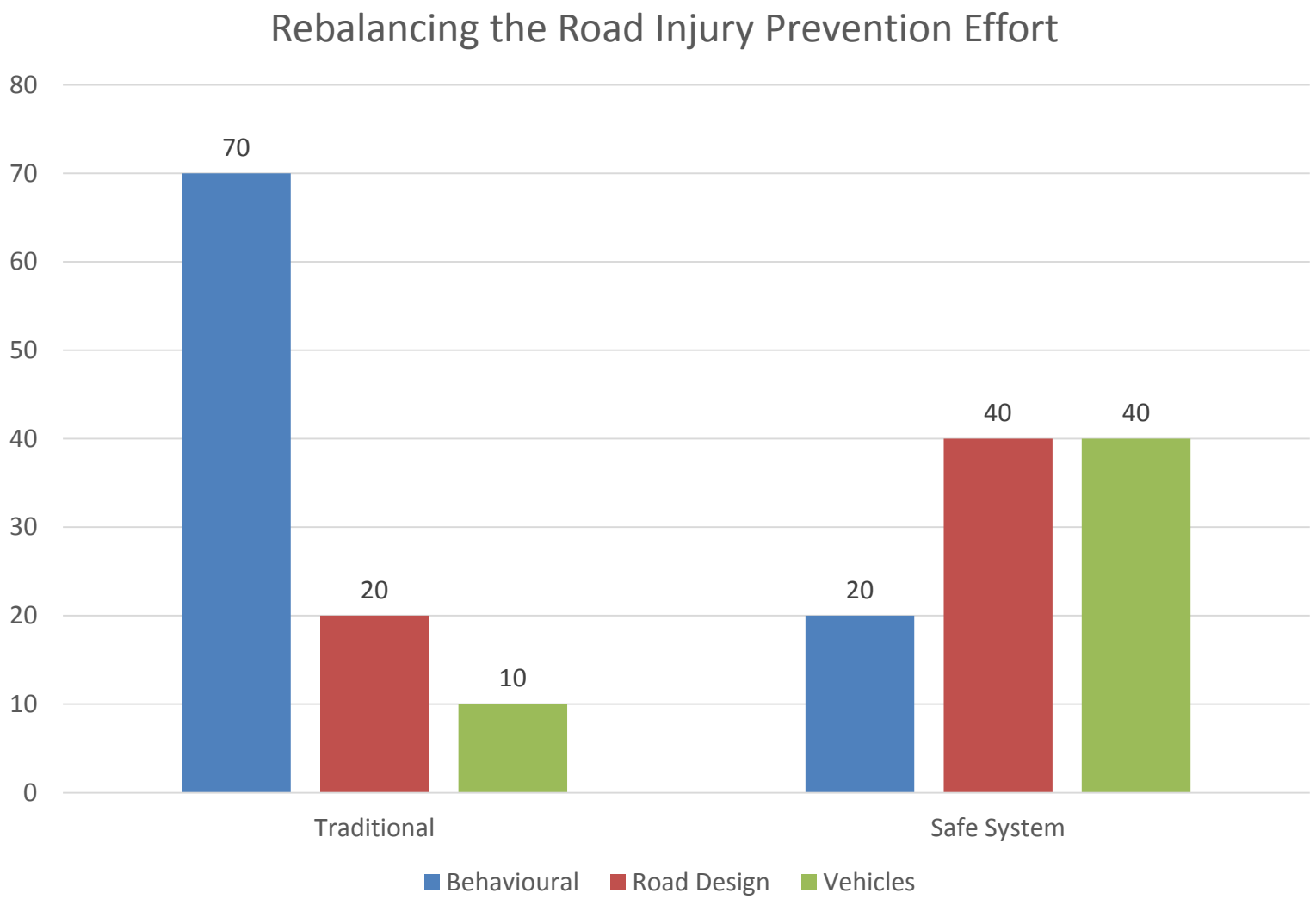
THE GLOBAL GOALS
For Sustainable Development

# Why The Safe System?

As simple as A, B, C,

- **A**voids default to primary reliance on behavioural measures.
- **B**uilds technology and infrastructure that aims to ‘hard wire’ sustainable road safety.
- **C**hallenges public lack of demand for safety, poor perceptions of risk, and tolerance of road trauma.
- **D**emands constant improvement (as no level of death is acceptable) so reducing the risk of policy fatigue and complacency.
- **E**ngages all stakeholders in a co-operative, transparent, and shared strategy.
- **F**uture orientated as it encourages innovation and integration of technologies promoting road injury prevention.

# Policy Instrument Burden Sharing: 'Traditional' vs Safe System

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# The Challenges & Opportunities of Policy Rebalancing

Behavioural measures (primarily enforcement) have an immediate impact but are costly and hard to sustain.

Infrastructure measures require ‘up front’ investment but can achieve permanent reductions in road injury.

Vehicle measures can secure permanent improvements but take at least fifteen years to fully penetrate the vehicle fleet.

Increasingly integration opportunities exist across these three pillars. Overall the ambition should be to gradually reduce the reliance on behavioural instruments.

Shared ‘road maps’ are needed to encourage a rebalancing of policy instruments in support of a safe system and zero fatalities.

# Global NCAP's 2020 Vision…

In 2015 from a total of 68 million new cars as many as 25% fail to meet UN minimum safety standards, lacking air bags, anti-lock brakes, or electronic stability control.



By 2020 at the latest Global NCAP wants all new cars to meet UN crash test standards with air bags, ABS and ESC fitted as standard.

This needs government action to apply UN vehicle safety standards more widely and greater effort to stimulate customer demand for safer motor vehicles.

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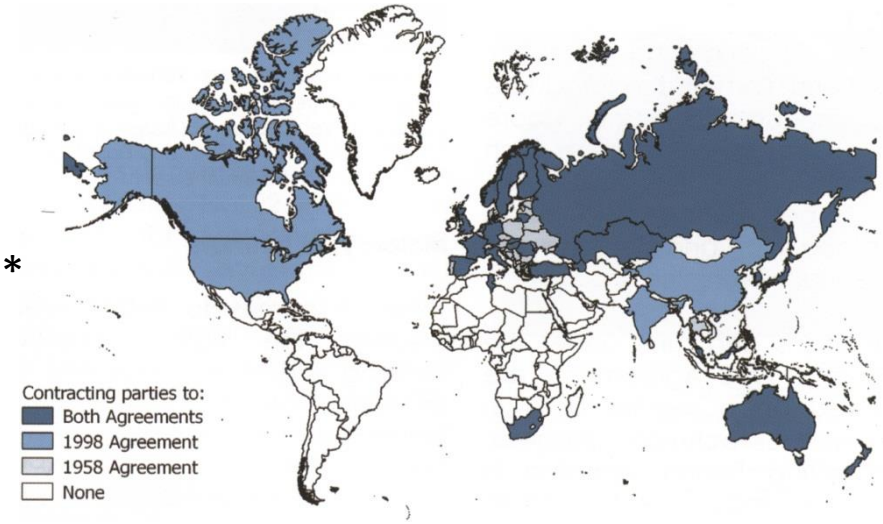
# UN Forum for Harmonization of Vehicle Regulations

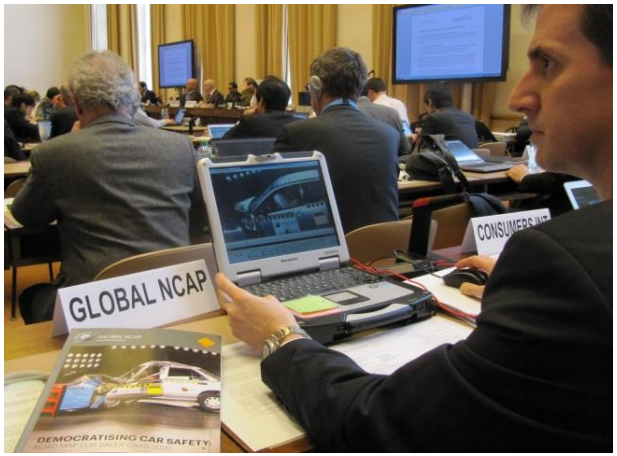
The Global Plan supports wider application of the most important global standards available under the 1958and 1998 agreements of the UN World Forum for Harmonisation of Vehicle Regulations (WP29).*




These are:

| | |
|---|---|
| Reg. 14 | Seat belt anchorages |
| Reg. 16 | Safety belts & restraints |
| Reg. 94 | Frontal collision |
| Reg. 95 | Lateral collision |
| Reg.13H (GTR 8) | Electronic stability control |
| Reg.127 (GTR 9) | Pedestrian protection |
| Reg. 44/129 | Child restraints |

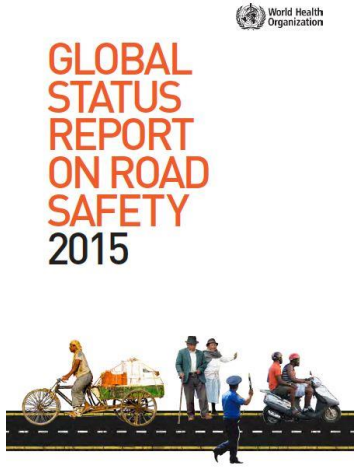
*or equivalent national standards (eg: FVMSSs)

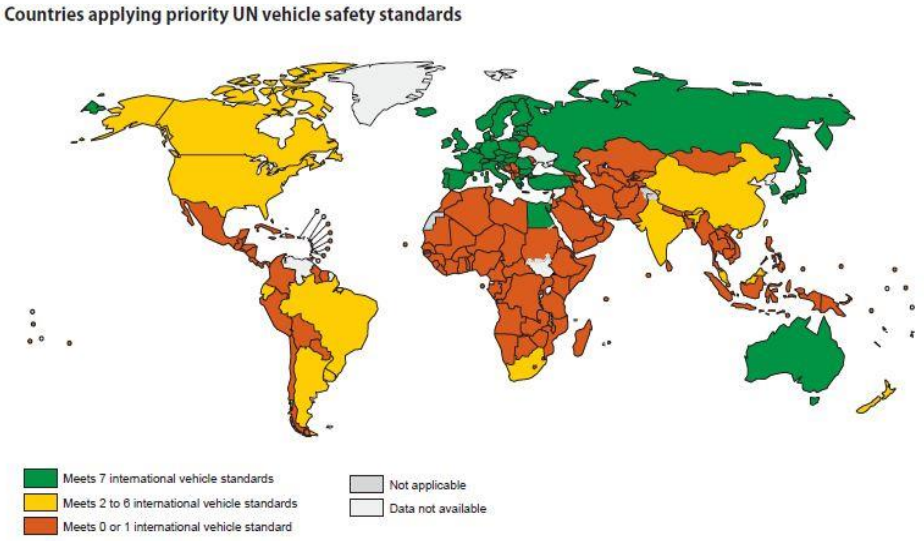


# WHO Global Road Safety Status Report 2015 - Vehicle Safety

The 2015 Status Report:

- Reveals “worrying data” showing that only 40 out of a total of 193 UN Member States fully apply the seven most important UN safety regulations and these are overwhelmingly high-income countries.
- Says “there is an urgent need for these minimum vehicle standards to be implemented by every country”.
- Warns that “regulations helping to protect occupants withstand front and side impact crashes are poorly implemented globally” and also calls for mandatory fitment of electronic stability control.



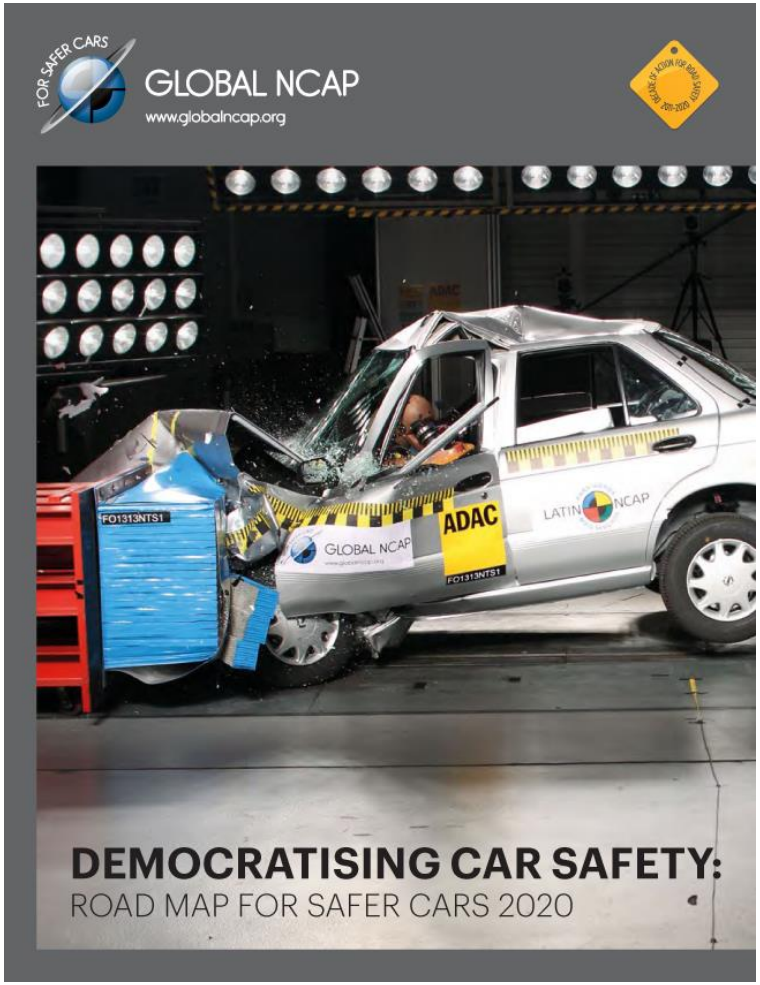
# Democratizing Car Safety: A Road Map for Safer Cars 2020

Global NCAP's Road Map for Safer Cars was launched in March 2015 and :

- Calls for the combination of stronger consumer information and universal application of minimum UN standards for crash protection and avoidance.

- Ten key recommendations  including the application to all new cars of the UN's front, side and pedestrian impact crash tests and the anti-skid system, electronic stability control, by 2020 at the latest.

- Global NCAP updated the Road Map in November 2015 to include Automatic Emergency Braking and anti-lock brakes in motorcycles.



| | **Road Map for Safer Vehicles 2020** UN Regulations* for: | All New Vehicles Produced or Imported | All Vehicles Produced or Imported |
|---|---|---|---|
|   | Frontal Impact (No.94) Side Impact (No.95) | 2016 | 2018 |
|   | Seat Belt & Anchorages (No.14 & 16) | 2016 | 2018 |
|   | Electronic Stability Control (No. 13H / GTR. 8) | 2018 | 2020 |
|   | Pedestrian Protection (No.127 / GTR. 9) | 2018 | 2020 |
|   | Motorcycle Anti-Lock Brakes (No. 78 / GTR. 3) | 2016 | 2018 |
|   | Autonomous Emergency Braking Systems | Highly Recommended | Highly Recommended |

*or equivalent national standards such as US FMVSSs

# Crash Avoidance Systems Starting Going Global

Three key crash avoidance systems are today's priority technologies for passenger cars, buses, commercial vehicles and motor cycles:

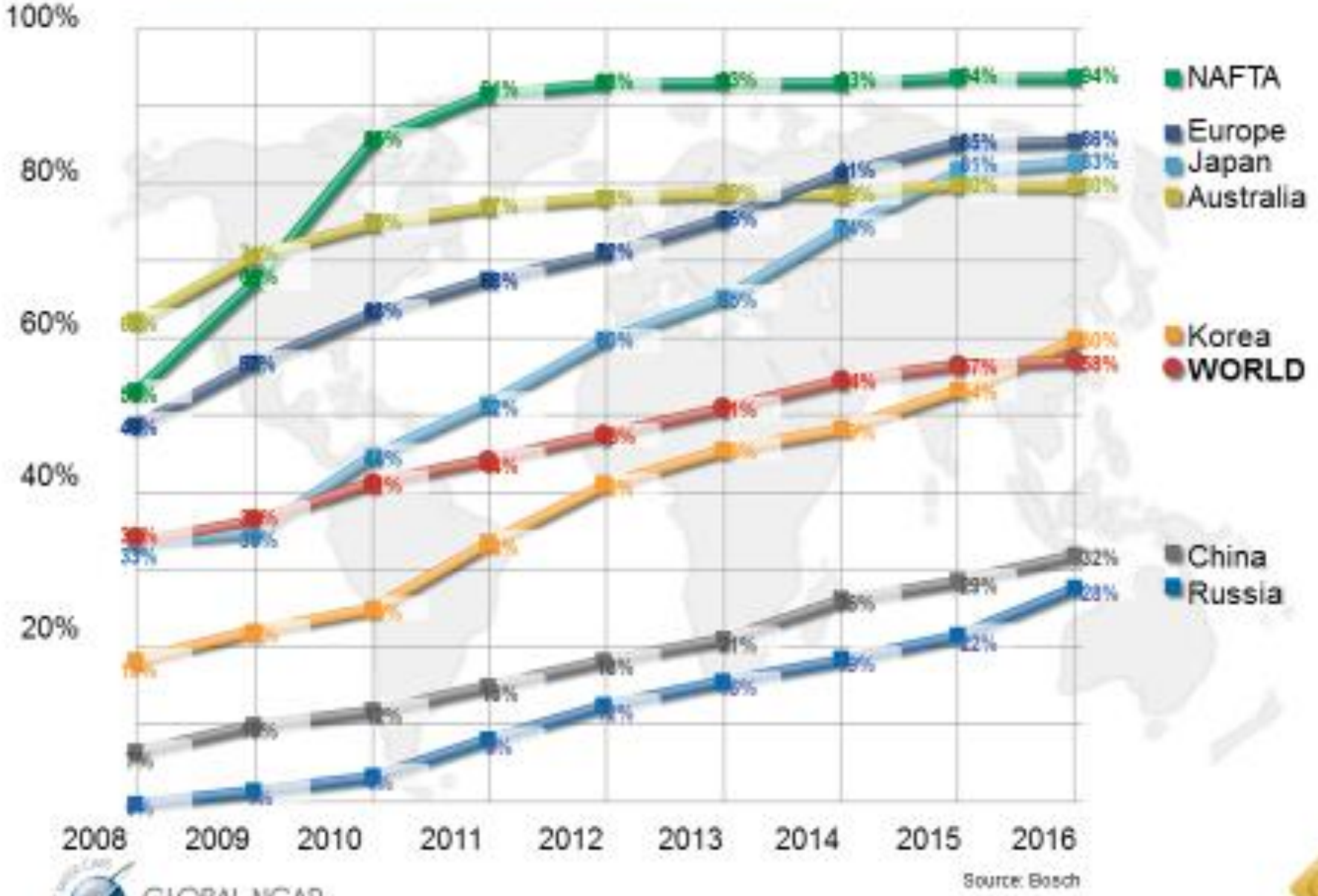
**Electronic Stability Control (ESC)** anti-skid system with capacity to reduce up to 40% of run-off road crashes. Now mandatory in most high income countries.

**Autonomous Emergency Braking (AEB)** automatically applies the brakes if the driver does not react and can cut collisions at low speed by 20%. Pedestrian systems are also appearing and will become an important injury prevention technology.

**Motorcycle Anti-lock Brakes (ABS)** improves stability and braking performance. Motorcycles equipped with ABS have rate of fatal crashes 37 per cent lower than same models without.



# ESC Global Installation Rates to 2016

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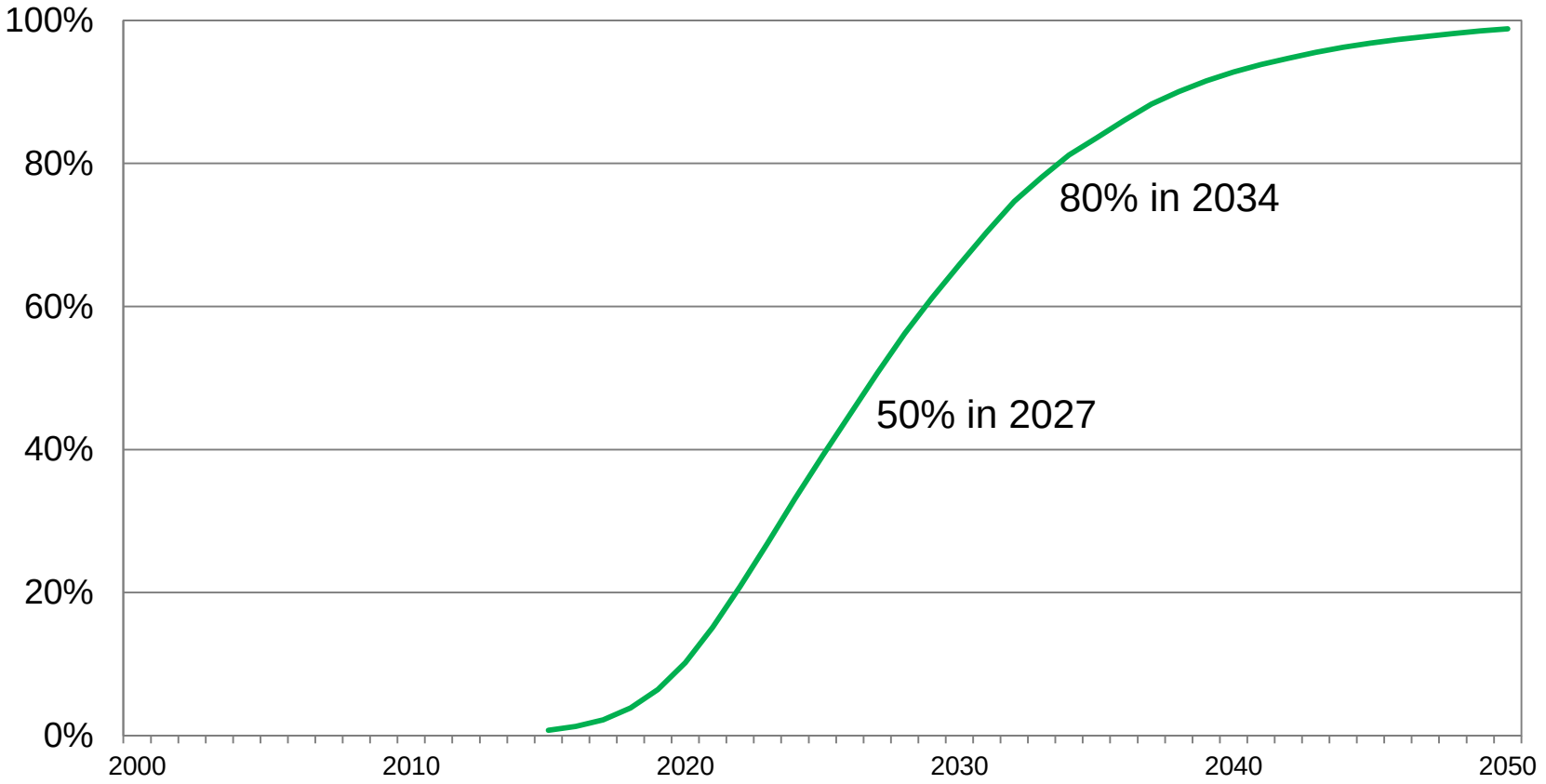
# IIHS Prediction of US Registered Vehicles with Autonomous Emergency Braking (with 2022 Voluntary Commitment)



# Autonomous Cars and Zero Fatalities…Decades Away

Self Driving Cars Forecast Global Sales by 2035:
11.8 Million or just 2.68% of the global light duty fleet.
(IHS Automotive 2015)

So self driving cars will make no positive impact at all on road injury prevention by 2030. The policy priority should be driver assistance systems that are already in use and which are pathways towards more autonomous vehicles. These include:

- Electronic Stability Control
- Autonomous Emergency Braking
- Intelligent Speed Assistance

There is a real risk that ‘hype’ about self driving cars will divert policy makers from mandating the technologies that can greatly contribute to road injury reduction to 2030 and beyond.

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# Thank You!

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