

# GLOBAL NCAP FLEET SAFETY GUIDE AND SAFER VEHICLE PURCHASING POLICY

2022-2023



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# ABOUT



The Global New Car Assessment Programme (Global NCAP), hosted by the Towards Zero Foundation (TZF), was established in 2011 to serve as a platform for cooperation among new car assessment programmes (NCAPs) around the world and to share best practice in the use of consumer information promoting motor vehicle safety.

With the global fleet doubling roughly every twenty years, it is likely that there will be over two billion automobiles in use by 2030. Most of that growth is taking place in emerging markets where the road safety challenge is greatest. NCAPs have proved highly effective in encouraging car purchasers to choose safer products and in improving outcomes for the victims of road crashes.

Global NCAP supports the development of NCAPs in emerging markets and further democratisation of

vehicle safety by encouraging the best practice application of automotive design and technology in all regions of the world and promotes universal adoption of the United nation's most important motor vehicle safety standards worldwide.

ALEJANDRO FURAS  
Secretary General  
Global New Car Assessment Programme









# FOREWORD

For many businesses, driving for work purposes is one of the greatest risks faced by their employees. Careful management of the way fleets are driven, maintained and purchased will save lives and reduce the costs of road crashes. Ensuring safer fleet purchasing decisions will not only help safeguard the safety of their staff, but also help accelerate the global uptake of safe vehicles and contribute to the United Nations (UN) Second Decade of Action for Road Safety 2021-2030 target to achieve at least a 50% reduction in road fatalities and injuries by 2030.

To assist fleet managers in making safer vehicle purchasing decisions, Global NCAP has revised and further developed this important guide. It provides recommendations on vehicle selection using NCAP 'five star' ratings and identifies the most important UN safety standards for passenger cars. Importantly, the guide also now includes recommendations for commercial vehicle categories and motorcycles.

Commercial vehicles have a high level of usage and tend to lag behind passenger vehicles in safety and the fitment of crash avoidance technologies. The surge in demand for delivery services, especially during COVID-related lockdowns, has seen a rise in the number of commercial vans on the road and it is vital that these vehicles are as safe as possible to protect both those inside and outside of them. Motorcycle use is growing globally and for commercial services. Fleet managers should, therefore, also opt for machines that are fitted with proven life-saving technologies such as anti-lock brakes.

This practical guide shows how fleet managers can apply 'five star' ratings and the most important regulations when selecting their vehicle fleet. By adopting Global NCAP's recommendations, organisations will ensure that their purchase decisions meet best practice in safety management and make an important contribution to the UN Decade of Action.

DAVID WARD  
Executive President  
Global NCAP

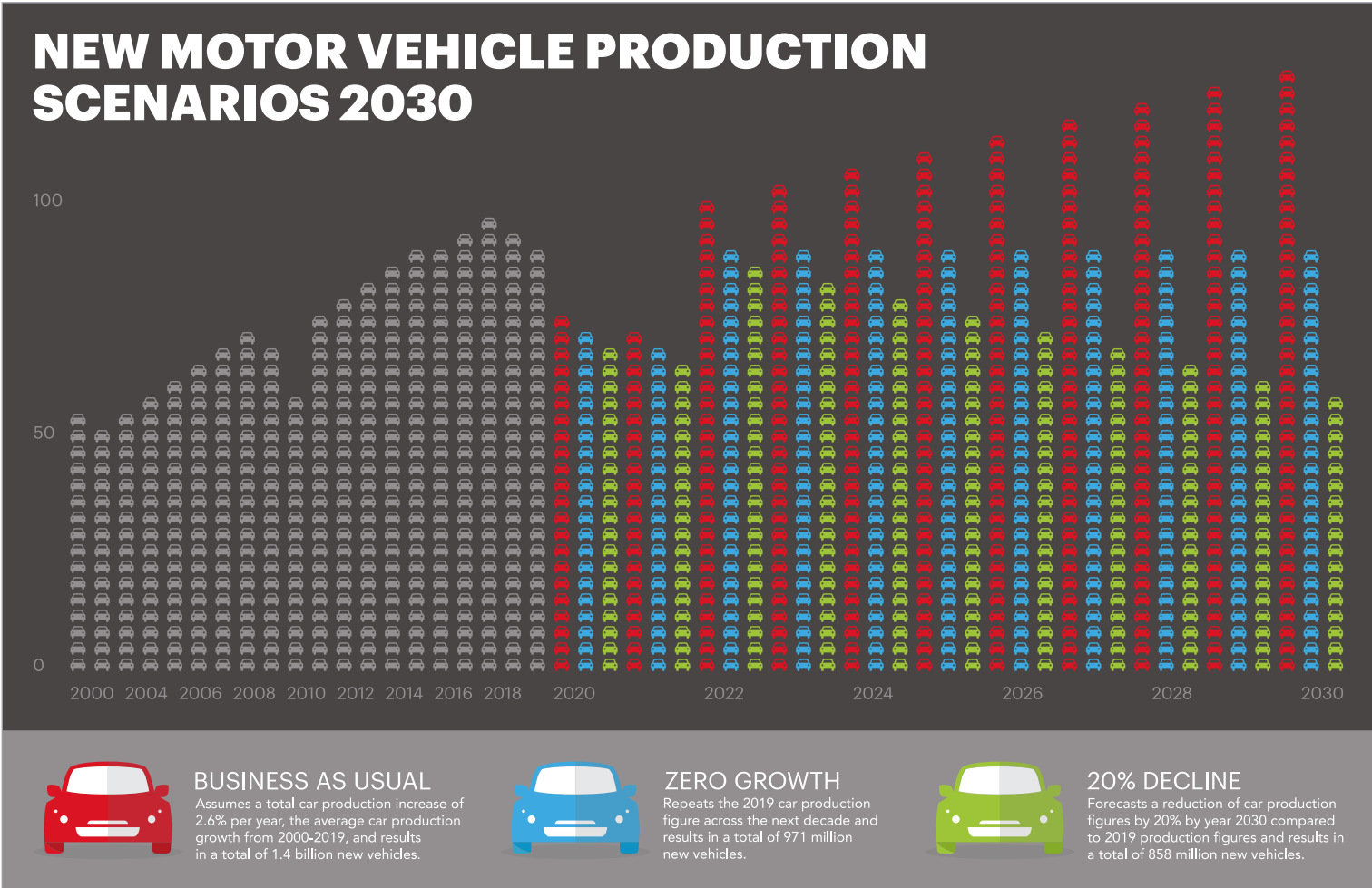




# INTRODUCTION

Since 2000 more than 1.4 billion new motor vehicles have been produced. We are living with the highest level of motorisation the world has ever seen. Since the 1970's the global fleet has roughly doubled every twenty years and it is likely by 2030, there will be over two billion automobiles in

use. The challenge now is to ensure world's next decade of new vehicles are safer than ever before to help improve road trauma and contribute to the UN Second Decade of Action for Road Safety.



To help frame policy priorities for the next decade, Global NCAP has prepared a set of three global vehicle production scenarios to 2030 which take account of the COVID 19 related decline in production that has occurred in 2020.

These are:

- **'Business as Usual'** in which post-pandemic production returns to the previous annual growth trend of 2.9%;
- **'Zero Growth'** in which production levels remain flat at the level achieved in 2019;and
- **'20% Decline'** in which a significant drop in production occurs through reduced car dependency.

These scenarios show by 2030 the number of new vehicles taking to the world roads could be as much as 1.41 billion with 'Business as Usual', 971 million with 'Zero Growth', and 858 million with '20% Decline'. It is very clear that regardless of which scenario is selected, over the next decade hundreds of millions of new vehicles will be joining the global fleet.





# UN 2nd DECADE OF ACTION FOR ROAD SAFETY



Globally, 1.3 million people are killed and a further 50 million injured every year and these figures have unfortunately remained relatively unchanged for 20 years. Without further urgent action, 13 million more lives lost, and 500 million more injuries are expected in the decade to 2030, with low and middle income countries the most affected

In 2020, the UN General Assembly adopted a new resolution on 'Improving Global Road Safety'. The resolution 'proclaims the period 2021-2030 as the Second Decade of Action for Road Safety, with a goal of reducing road traffic deaths and injuries by at least 50 per cent from 2021 to 2030...'. The UN has subsequently published a Global Plan for the Decade of Action to help align priorities and guide implementation in reaching the global goal<sup>1</sup>. In June 2022, a High-level Meeting of the UN General Assembly on Global Road Safety was held under the overall theme "**The 2030 horizon for road safety: securing a decade of action and delivery**". The High Level Meeting adopted a political declaration which endorsed and committed to drive the implementation of the Global Plan, and also included strong references to the importance of new car assessment programs and democratising vehicle safety in Section 11<sup>2</sup>.

The Global Plan includes a strong set of vehicle recommendations including the universal fitment of technologies such as Electronic Stability Control (ESC), advanced emergency braking and Intelligent Speed Assistance (see pages 13/14 and Box 3). In addition, the Global Plan encourages both public and private fleets to

contribute to improved vehicle safety by always purchasing vehicles that at least exceed the minimum UN safety regulations.

The Global Plan also supports a set of Global Road Safety Voluntary Performance Targets. The Target for vehicles states that:

- **Target 5** – By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognised national performance requirements<sup>3</sup>.

Adopting and achieving this target for vehicle safety will greatly improve the safety of the global fleet and have a significant impact on the number of people killed and seriously injured. Introducing these standards alongside proven and powerful consumer information partnerships like New Car Assessment Programmes (NCAPs) encourages a local and worldwide market for safer vehicles and is known as the regulatory push and demand pull effect.

## ROAD TRAFFIC INJURIES

nearly  
**1.3 million DEATHS**  
& as many as  
**50 million INJURIES**  
each year

<sup>1</sup> Global Plan – Decade of Action for Road Safety 2021-2030

<sup>2</sup> Political declaration of the High-Level Meeting on Improving Global Road Safety : (un.org) see paragraph 11

<sup>3</sup> [https://www.who.int/violence\\_injury\\_prevention/road\\_traffic/12GlobalRoadSafetyTargets.pdf?ua=1](https://www.who.int/violence_injury_prevention/road_traffic/12GlobalRoadSafetyTargets.pdf?ua=1)



# REGULATORY PUSH - THE ROLE OF VEHICLE REGULATIONS

Not all vehicles are created equal and some are safer than others. This can be a function of the vehicle safety regulations of a country.

Today, through the UN World Forum for Harmonization of Vehicle Regulations<sup>4</sup> (WP.29), motor vehicles can now be harmonized in terms of their safety. With the certification processes available under the UN agreements for regulatory harmonization, mutual recognition of approvals makes trade and the flow of cars worldwide more dynamic while securing a minimum regulatory level.

WP. 29 uses two Agreements, adopted in 1958 and 1998, to provide a legal framework that allows any UN Member State to apply voluntarily a wide range of motor vehicle standards and one Agreement adopted in 1997 on periodical technical inspections. This unique UN regulatory system facilitates international trade and promotes the safety of motor vehicles whilst reducing regulatory compliance costs to industry and to approval authorities. All of the Forum's regulations are subject to a constant process of updating in order to adapt to technological progress and levels of stringency.

The WP. 29's most important safety regulations applied to light duty vehicles and motorcycles and highlighted in the UN Global Road Safety Performance Target and Global Plan are:

- UN Regulation 94  
**Occupant Protection in Frontal Impact**
- UN Regulation 95  
**Occupant Protection in Side Impact**
- UN Regulation 140/GTR 8<sup>5</sup>  
**Electronic Stability Control**
- UN Regulation 127/GTR 9  
**Pedestrian Protection**
- UN Regulation 16  
**Seat Belts**
- UN Regulation 14  
**Seat Belt Anchorages**
- UN Regulations 44 and 129  
**Child Restraint System**

- UN Regulation 150  
**Autonomous Emergency Braking System**
- UN Regulation 78/GTR 3  
**Motorcycle Antilock Braking System**

While WP. 29 provides a legal framework for a range of vehicle safety and emissions standards for UN Member States to adopt voluntarily, many countries do not. Entire world regions such as Latin America, the Middle East and most of Africa are not contracting parties in the WP. 29. As a result there are many new cars being produced today in emerging economies that are sub-standard in comparison with the UN's minimum safety requirements. The lack of universal adoption of the minimum standards creates a loophole in which manufacturers can produce and sell sub standard vehicles in countries that have not applied the standards, typically in low and middle income countries. This is why the Global Plan of the Decade strongly recommends the application of at least minimum vehicle safety standards to ensure vehicle safety worldwide.

In 2022, the European Union (EU) implemented a new suite of General Safety Regulations (GSR) and helped set a new standard for the minimum safety regulations and safety features required in new vehicles in the EU, including:

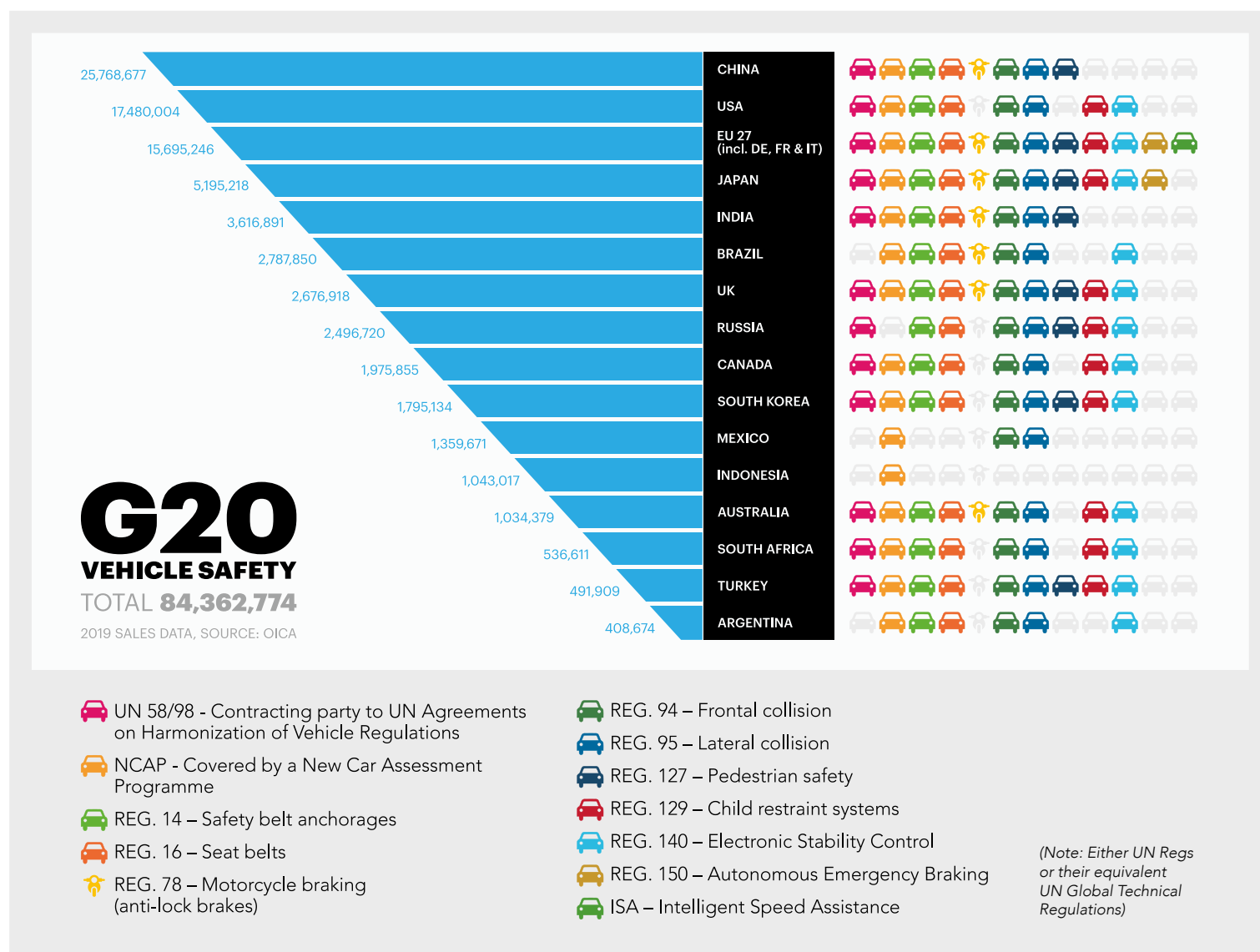
- Advanced vehicle systems for all motor vehicle categories
- intelligent speed assistance (ISA)
- advanced emergency braking systems
- alcohol interlock installation facilitation
- driver drowsiness and attention warning
- advanced driver distraction warning
- emergency stop signal
- reversing detection

<sup>4</sup> <https://unece.org/transport/vehicle-regulations/world-forum-harmonization-vehicle-regulations-wp29>  
<sup>5</sup> GTR = Global Technical Regulation





The Group of 20 Countries comprising 19 leading economies and the EU account for over 85% of global vehicle sales. The table below provides a scorecard of how these countries are performing in applying the most important vehicle safety regulations.







**ADAC**

**OD4321MXU1**

**GLOBAL NCAP**







# DEMAND PULL - THE ROLE OF NEW CAR ASSESSMENT PROGRAMMES

In parallel to regulatory action over the last thirty years a major effort has been made to increase the public demand for safer motor vehicles. This has mainly involved consumer information to stimulate car buyer's awareness of safety through New Car Assessment Programmes (NCAPs). Consumers cannot demand what they do not know and NCAPs play an important role in assisting car buyers make safer purchasing decisions by providing them with independent safety advice which in turn encourages manufacturers to produce safer vehicles. NCAPs also play a role in encouraging manufacturers to voluntarily fit safety technologies in advance of any regulatory mandate and to produce safer vehicles.

The first NCAP was created in 1978 by the US National Highway Traffic Safety Administration (NHTSA). This was followed by the creation of Australasian NCAP in 1993, Japan NCAP in 1995, and Euro NCAP in 1997. There are now nine NCAPs or similar bodies active in Asia, Australasia, Europe, Latin America and the USA<sup>6</sup>. In 2011 the Global New Car Assessment Programme (Global NCAP) was launched to provide a platform for cooperation for NCAPs around the world to share best practice, and to support new testing programmes in rapidly motorizing regions. In addition, Global NCAP runs pilot consumer programmes in India and Africa, called Safer Cars for India and Safer Cars for Africa, respectively.

NCAPs have been highly successful in influencing the supply and demand for safer vehicles and increasing the proportion of vehicles achieving better performance. NCAPs typically award stars based on a car's performance in a variety of crash assessments with 'five stars' representing a high score. Due to the different test protocols used by NCAPs not all five star cars are equivalent around the world. In some NCAPs, for example, to obtain five stars requires that the model has advanced driver assistance systems whereas in others this is not yet applied and these differences reflect the different market conditions around the world.

<sup>6</sup> ASEAN NCAP, Australasian NCAP, China NCAP, Euro NCAP, Japan NCAP, Korean NCAP, Latin NCAP, US NCAP and the Insurance Institute for Highway Safety.



# CRASHWORTHINESS

Crashworthiness refers to how well a vehicle is able to protect its occupants in the event of a crash. The UN tests for front and side impact are the most significant assessment tools for crashworthiness. The frontal test (UN Reg. 94) simulates a car to car crash at 56 kilometers per hour (kph) in which the vehicle hits a barrier that replicates the soft front end of the other vehicle. The impact is 'offset' with a 40% overlap as most frontal crashes occur in this configuration. The side impact test (UN Reg. 95) uses a trolley that hits the vehicle just above the door sill area at 50 kph. They are performance tests in which stipulated loadings on an instrumented dummy must not be exceeded. They do not specify the fitment of a particular technology such as an airbag. In practice, however, it is very unusual for a car to pass without the fitment of at least a driver's side airbag.

The UN is also promoting measures to reduce the risk of injury to pedestrians in a collision with a passenger car. Every year 338,000 pedestrians and cyclists are killed on the roads or 26% of all road traffic deaths. Most pedestrian fatalities occur in low income countries but they are a major issue in all regions. In high income countries they are taking an increasing share of road deaths as other at risk groups such as vehicle occupants become safer. UN GTR No.9 encourages the design of more forgiving car fronts. Softer bumpers, combined with better bonnet area clearance and removal of unnecessarily stiff structures, are required to reduce the severity of a pedestrian impact.







# CRASH AVOIDANCE

An area of growing importance is crash avoidance and technologies that can help vehicles achieve this. The benefits of improved crash worthiness and occupant protection are obvious but it is even better to avoid the collision in the first place. To achieve this highly desirable outcome the

automotive industry has invested heavily in technologies that will assist the driver from having a crash at all. The earliest such system was anti-lock brakes (ABS) and this has been followed by electronic stability control (ESC) and more recently autonomous emergency braking (AEB).



## Electronic Stability Control

ESC is the most significant advance in vehicle safety since the introduction of the seat belt and one of the most important crash avoidance systems currently available. This anti-skid technology has already helped prevent hundreds of thousands of loss of control crashes and saved tens of thousands of lives.

On dry, wet, or slippery roads if the vehicle starts to skid, ESC corrects the slide by reducing engine torque and braking wheels individually to bring the vehicle back on course. The system uses sensors to continuously monitor the stability of the vehicle. When an unstable state is detected, for instance as the result of a sudden direction change, ESC responds in milliseconds and stabilises the vehicle. If the system senses oversteer (i.e. that the rear of the car is starting to drift

sideways out of the turn), ESC applies the brakes to the front wheel on the outside of the turn to create a counteracting torque about the vertical axis of the vehicle. This stabilises the vehicle and turns it back onto the path intended by the driver.

Case studies between 2001 and 2007 have shown ESC to be highly effective, avoiding single vehicle crashes by approximately 30%. In the European Union, where ESC became a mandatory requirement in all new cars from 1 November 2014 it is estimated that at least 188,500 crashes involving injury have been avoided and more than 6,100 lives saved by ESC. In the United States, where ESC became mandatory from 2012 it is estimated that already more than 6,000 lives have been saved.



## Autonomous Emergency Braking

AEB is an advanced safety technology that can help drivers avoid or mitigate collisions with other vehicles or vulnerable road users.

Multiple real world studies including a recent report from the Insurance Institute for Highway Safety in the United States show that AEB technologies can reduce injury claims by as much as 35%.

AEB systems use forward looking radar, cameras or optical sensors or a combination of these sensors to help quickly and accurately detect impeding vehicles, pedestrians and potentially other obstacles. That information can then be used to apply the brakes to provide up to 1 g deceleration of brake force in an effort to avoid or mitigate collisions.

AEB helps provide constant monitoring of the road ahead and is designed to assist the driver by automatically applying the brakes if they do not respond in an imminent crash situation.

AEB currently exists in three formats responding to different kinds of obstacles:

### CITY

Applying the brakes in low speed situations where a crash may be imminent in city environments such as queuing traffic, at intersections or in roundabouts.

### INTER URBAN

Applying the brakes to avoid high speed collisions between two vehicles such as on motorways.

### PEDESTRIAN

Applying the brakes to avoid hitting a pedestrian stepping into the road, even in situations where pedestrians enter the roadway from behind obstructions such as parked vehicles.

As AEB systems utilize differing sensor technologies and underlying algorithms current cars on the market may be fitted with all three of the systems or only a selection.







## Intelligent Speed Assistance

Intelligent Speed Assistance (ISA) is a vehicle safety technology that utilises cameras and/or a GPS map to advise drivers of the speed limit of the road they are travelling on. When the vehicle exceeds the posted speed limit of the road, ISA can provide a warning and/or limit the speed of the vehicle to the detected speed limit by cutting engine

torque. ISA limiting shows the greatest safety benefit and can reduce injury crashes by 28.9%<sup>7</sup>. ISA can be installed at the time of manufacture but is also available and possible to be retro-fitted after market. ISA is one of the technologies now required under the new EU General Safety Regulations that came into force in the region in July 2022.



## Motorcycle Safety

Globally, powered two and three wheelers represent 29% of all deaths and in the Asia Pacific region, this figure increases to 39%. Alarming, in South East Asia, this figure surges dramatically to 62% of all deaths<sup>8</sup>, and in some countries in the region such as Thailand and Indonesia, rider fatalities can be as high as 74%<sup>9</sup>. Motorcyclists are vulnerable due to the lack of protection as compared to vehicle occupants. Due to this lack of protection, it is vital to focus efforts on crash avoidance technologies in order to increase motorcyclist safety. The Global Plan recommends that countries prioritise antilock braking systems (ABS) and daytime running lights for motorcyclists. Due to the vulnerability of motorcyclists efforts also need to be made to ensure helmets that meet safety standards are utilised by motorcyclists.

## Motorcycle ABS

ABS for motorcycle was introduced in the late 1980s. ABS is available for all types of motorcycles in all markets: from scooters and mopeds to heavy-duty tourers and powerful motorcycles. There are cost-effective versions for different kind of hydraulic braking systems such as front wheel only as well as front- and rear-wheel brakes combined.

The technology has now sufficiently matured and the cost to install ABS has dropped tremendously. Many countries around the world such as European Union (EU) countries,

India, Japan, Australia and recently, Thailand and Malaysia, have mandated the use of ABS due to its effectiveness in reducing severe and fatal crashes by 34 % and 41%, respectively<sup>10</sup>.

ABS for motorcycles prevents wheel lock-up and ensures bike stability as well as optimal deceleration while braking. ABS therefore significantly reduces the risk of falling and reduces stopping distance. On a motorcycle fitted with an antilock braking system, the ABS control unit constantly monitors the speed of the wheels using wheel-speed sensors. If a wheel threatens to lock during hard braking or on slippery roads, the antilock braking system regulates the braking pressure in a targeted manner, thereby ensuring optimum braking. In this way, the driving stability and manoeuvrability of the motorcycle is maintained, even where there are adverse driving conditions such as sand, loose chippings or water. This significantly reduces the risk of a brake-induced fall, and usually shortens the braking distance. Depending on the model, the motorcyclists can recognize that the ABS has kicked in through a gentle pulsing on the hand and foot brake levers.

<sup>7</sup> Carsten et al. (2008). Speed limit adherence and its effect on road safety and climate change - final report, University of Leeds; Lai, Carsten & Tate (2012). How much benefit does Intelligent Speed Adaptation deliver: an analysis of its potential contribution to safety and environment, Accident Analysis Prevention, 48: 63-72.

<sup>8</sup> <https://www.unescap.org/announcement/road-safety-status-asia-pacific-region>  
<sup>9</sup> World Health Organisation. (2018). Global Status Report on Road Safety 2018

<sup>10</sup> Effectiveness of Motorcycle Antilock Braking Systems (ABS) in Reducing Crashes, the First Cross-National Study by Rizzi, Strandroth, Kullgren, Tingvall and Fildes, published in Traffic Injury Prevention (2015) 16, 177-183

# FLEET MANAGEMENT

Road crashes at work are an unfortunate and frequently tragic everyday occurrence. For businesses, driving for work purposes is the greatest risk faced by their employees. It has been estimated, for example, that in Australia, the EU and the USA, work-related motor vehicle crashes cause between a quarter and over a third of all work-related deaths. Hence why the UN General Assembly's 2020 resolution 'Improving Global Road Safety' specifically calls for the adoption of policies "to decrease work-related road traffic crashes" and "to enforce international standards on safety and health at work, road safety and adequate road and vehicle conditions".

More and more major vehicle fleets are now being systematically managed to avoid road crashes, motivated by a combination of duty of care for their employees, cost control, and corporate social responsibility. With fleet purchases accounting for the majority proportion of new vehicles sold, with up to 57-63% of newly registered vehicles belonging to a company, in some countries<sup>11</sup>, purchasing safer vehicles can both protect a business' employees as well as contribute to accelerating the safety of the global fleet. Recognising the role and importance of fleet safety, the Global Plan includes fleet safety management among its key vehicle safety recommendations (pages 13-14).

Supporting this approach is a management system standard for road traffic safety (ISO 39001)<sup>12</sup> adopted by the International Standards Organization (ISO)<sup>13</sup>. The standard is a practical tool for governments and vehicle fleet operators worldwide who want to reduce death and serious injury in road crashes. ISO 39001 provides fleet operators with 'Road Traffic Safety Performance Factors' which, inter alia, includes "safety of vehicles, especially considering occupant protection, protection of other road users (vulnerable as well as other vehicle occupants), road traffic crash avoidance and mitigation, roadworthiness, vehicle load capacity and securing of loads in and on the vehicle". The ISO standard's guidance emphasizes that "Improvements in vehicle safety design and safety equipment, including the development and application of new safety technologies (e.g. electronic stability control), play an important role in efforts to reduce road traffic deaths and serious injuries".

Regarding vehicle purchasing policy ISO 39001 states that, "Any organization can improve safety by careful selection of the vehicles it uses. The safety differences of vehicle types and models are significant, whether for people inside or outside of the vehicle, or for light or heavy vehicles.

Generally, vehicle safety is legislated and most new vehicles deliver safety beyond legislation. Consumer programs test and publish safety ratings for many vehicle types and models which can be used by organizations to assist them in making

informed decisions. Five star ratings by NCAPs are a reliable independent guide to levels of vehicle safety and are being increasingly used by fleet managers to guide their vehicle purchase choices. For example, both the Australian and Swedish Governments have adopted purchasing policies that stipulate a five star rating requirement. More recently, the UK Government stipulated from 31st December 2020 to only buy Euro NCAP rated five star cars. In the private sector, in 2012, the world's largest resource extraction company BHP Billiton included in its Fatal Risk Control policy a transition to a five star commitment for all its light duty vehicles by 2016. Similar application of NCAP five star ratings are also being applied by other global companies such as Shell, BP and Johnson & Johnson.

To assist similar commitments by other major fleets in both the public and private sector, Global NCAP has developed a model 'Safer Vehicle Purchasing Policy' (SVPP). The policy provides a template for organizations to assist their compliance with the recommendations of the Global Plan for the Decade and ISO 39001 and the scope has been extended to include some commercial vehicle categories and motorcycles. Given their levels of usage and kilometres driven commercial vehicles inevitably face a high risk profile. In the UK, for example, vans are involved in more crashes that result in fatal injuries to other road users, per mile travelled, than any other type of vehicle. But making matters worse is the fact that vans lag behind cars in the fitment of vital crash avoidance technologies. For example, only 12.8% of new vans were fitted with AEB as standard in 2019, compared to 62% of new cars. Meanwhile across the world COVID-related lockdowns have created a surge in demand for delivery services, and as a result, many areas have seen a rise in the number of commercial vans on the road.

The SVPP starting point is to choose five star cars wherever possible and never less than 4 stars. A commitment to five stars represents a robust demonstration of an organization's commitment to fleet safety. While acknowledging that NCAP ratings differ somewhat across world regions a five star commitment will ensure a level of occupant protection that significantly exceeds the UN minimum regulations.

Global NCAP also recognizes that NCAP ratings are not available in all world regions. To supplement a five star requirement it is, therefore, recommended that fleet managers seek confirmation from the vehicle manufacturers that the vehicle they wish to purchase meets the most important UN safety regulations as listed.

<sup>11</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/985555/vehicle-licensing-statistics-2020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/985555/vehicle-licensing-statistics-2020.pdf) & <https://www.bilsweden.se/statistik/databas-nybilskopare-personbilar>

<sup>12</sup> ISO 39001:2012, Road traffic safety (RTS) management systems – Requirements with guidance for use  
<sup>13</sup> ISO 39001:2012, Road traffic safety (RTS) management systems – Requirements with guidance for use





# CONCLUSIONS

A vehicle's lifespan is approximately 20 years and it takes on average at least 15 years for a vehicle fleet to be completely replaced and even longer in some regions of the world. Every vehicle sold that does not meet the best safety standards and are not equipped with the best safety technologies as currently specified, represents an opportunity lost and the vehicle will continue to operate at greater risk for the rest of its lifespan. There is an urgency for prompt action now as with every year of delay, the millions of sub standard vehicles produced will remain on the road for decades to come.

Improved fleet selection and purchasing can contribute greatly to ensuring safer vehicles enter the fleet, safeguarding the health and well-being of employees and contribute to saving lives globally. Using Global NCAP's guidelines and adopting a five star commitment will be the best way for fleet managers to meet their duty of care for employees, reduce the costs of road crashes, and demonstrate real commitment to corporate social responsibility.



# FLEET SAFETY GUIDELINES AND SAFER VEHICLE PURCHASING POLICY 2022-2023

[Organization Name] is committed to providing a safe workplace for all employees and ensuring that a safety culture permeates the organisation. Accordingly, Management undertakes to purchase and/or lease the safest available vehicles within reasonable bounds of affordability. This policy will apply to all cars purchased and/or leased by [Organization Name] including pool and company vehicles.

The basic requirements for [Organization Name] are:

## **Passenger Vehicles (M1)**

All of the following must be met:

Wherever possible, choose a five star car (and never less than four stars) as rated by the local New Car Assessment Programme. If the selected model is not rated in the local NCAP, please request for its assessment. If there is no local NCAP available, request for the NCAP result from the region where the vehicle is sourced from – this result is only valid if the vehicle has the same safety configuration as the tested vehicle. It is therefore important to seek confirmation from the manufacturer.

Obtain confirmation from the manufacturer that the vehicle passes the latest version of the following United Nations (UN) vehicle safety regulations (or equivalent national performance requirements with effective conformity of production).

## **Must Have Requirements (For immediate application as the minimum safety requirements)**

- Braking – UN Regulation 13H
- Seat belt anchorages – UN Regulation 14
- Safety belts and restraint systems – UN Regulation 16
- Frontal collision protection – UN Regulation 94
- Side collision protection – UN Regulation 95
- Pedestrian safety – UN Regulation 127/GTR 9
- Electronic stability control – UN Regulation 140/GTR 8
- ISOFIX Anchorages – UN Regulation 145
- Side Pole Impact Protection - UN Regulation 135
- (where available) Advanced Emergency Braking Systems – UN Regulation 152
- (where available) Intelligent Speed Assistance
- (where available) Blind Spot Detection – UN Regulation 151
- (where available) Lane Support Systems – UN Regulation 157

In addition to meeting the minimum UN regulations above, obtain confirmation from the manufacturers that the vehicle is equipped with the following safety equipment.

## **Must Have Equipment (For immediate application as the minimum safety requirements)**

- 3 point belts in all seating positions
- Seatbelt reminder in all seating positions
- At least two frontal airbags
- At least two side body airbags
- At least two side head airbags.
- Electronic Stability Control (ESC)
- Pedestrian protection
- Speed limitation systems (Intelligence Speed Assistance)





- Autonomous Emergency Braking (AEB)
- Blind Spot Detection
- Lane Support System
- ISOFIX or LATCH (child seat anchorages)

### **Commercial Vehicles (N1)**

Wherever possible, choose a model based in a five star car (and never less than four stars) as rated by the local New Car Assessment Programme. If the selected model is not rated in the local NCAP, please request for its assessment. If there is no local NCAP available, request for the NCAP result from the region where the vehicle is sourced from – this results is only valid if the vehicle has the same safety configuration as the tested vehicle. It is therefore important to seek confirmation from the manufacturer.

Obtain confirmation from the manufacturer that the vehicle passes the latest version of the following United Nations (UN) vehicle safety regulations (or equivalent national performance requirements with effective conformity of production).

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- Seat belt anchorages – UN Regulation 14
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- Frontal collision protection – UN Regulation 94
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- Advanced Emergency Braking Systems – UN Regulation 152
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### **Must Have Equipment (For immediate application as the minimum safety requirements)**

- 3 point belts in all seating positions
- Seatbelt reminder in all seating positions
- At least two frontal airbags
- At least two side body airbags
- At least two side head airbags.
- Electronic Stability Control (ESC)
- Pedestrian protection
- Speed limitation systems (Intelligence Speed Assistance)
- Autonomous Emergency Braking (AEB)
- Blind Spot Detection
- Lane Support System
- ISOFIX or LATCH (child seat anchorages)

**\*\*Note for Passenger Vehicles (M1) and Commercial Vehicles (N1)**

Any internal or external add on (eg. roll cages) will automatically render the NCAP result invalid and the vehicle must be reassessed and include a SAE J996 roof strength assessment

## Commercial & Heavy Vehicles (M2, M3, N2, N3)

Obtain confirmation from the manufacturer that the vehicle passes the latest version of the following United Nations (UN) vehicle safety regulations (or equivalent national standards).

### Must Have Requirements (For immediate application as the minimum safety requirements)

- Braking - UN Regulation 13
- Seat belt anchorages - UN Regulation 14
- Seat belts, restraint systems, child restraint systems - UN Regulation 16
- Seats, anchorages, head restraints (M vehicles only) - UN 17
- Occupant protection of the cab of a commercial vehicles - UN 29
- Prevention of fire risk - UN 34
- Pneumatic tyres for commercial vehicles and their trailers - UN 54
- Rear underrun protective devices - UN 58
- Strength of superstructure - UN 66
- Lateral protection devices - UN 73
- Strength of seats and their anchorages (M2 and M3 vehicles only) - UN 80
- Speed limitation devices - UN 89
- Front underrun protective devices - UN 93
- General construction (M2 or M3 vehicles only) - UN 107
- Rollover stability (N vehicles only) - UN 111

- Advanced Emergency Braking Systems – UN Regulation 131
- Electronic stability control UN140/GTR8

In addition to meeting the minimum UN regulations above, obtain confirmation from the manufacturers that the vehicle is equipped with the following safety equipment

### Must Have Equipment (For immediate application as the minimum safety requirements)

- Electronic stability control
- Autonomous Emergency Braking (AEB)
- Speed limitation systems (intelligent speed assistance)
- Blind Spot Detection
- Lane Support Systems

## Motorcycles and Mopeds (L)

Obtain confirmation from the manufacturers that the vehicle is equipped with the following safety equipment

### Must have equipment (For immediate application as the minimum safety requirements)

- Antilock Braking System – UN Regulation 78/GTR 3
- Daytime Running Lights

In addition, fleet managers should ensure that riders are equipped with and wearing helmets that meet UN Regulation 22 (or equivalent national standards).

## VEHICLE CLASSIFICATION CLARIFICATION

- M vehicles = designed and constructed for the carriage of passenger, includes passenger cars, vans and light duty vehicles
  - M1 = Passenger vehicles for 9 or less people
  - M2 = Buses and coaches for 10 or more passengers, vehicle mass of <5t
  - M3 = Buses and coaches for 10 or more passengers, vehicle mass of >5t
- N vehicles = designed and constructed for the carriage of goods, includes trucks, buses and coaches and heavy duty vehicles
  - N1 = light goods vehicles, vehicle mass <3.5t
  - N2 = heavy goods vehicles, vehicle mass <3.5t – 12t
  - N3 = heavy goods vehicles, vehicle mass >12t
- L vehicles = motorcycles and mopeds





# RESOURCES

EU General Safety Regulations  
<https://eur-lex.europa.eu/eli/reg/2019/2144/oj>

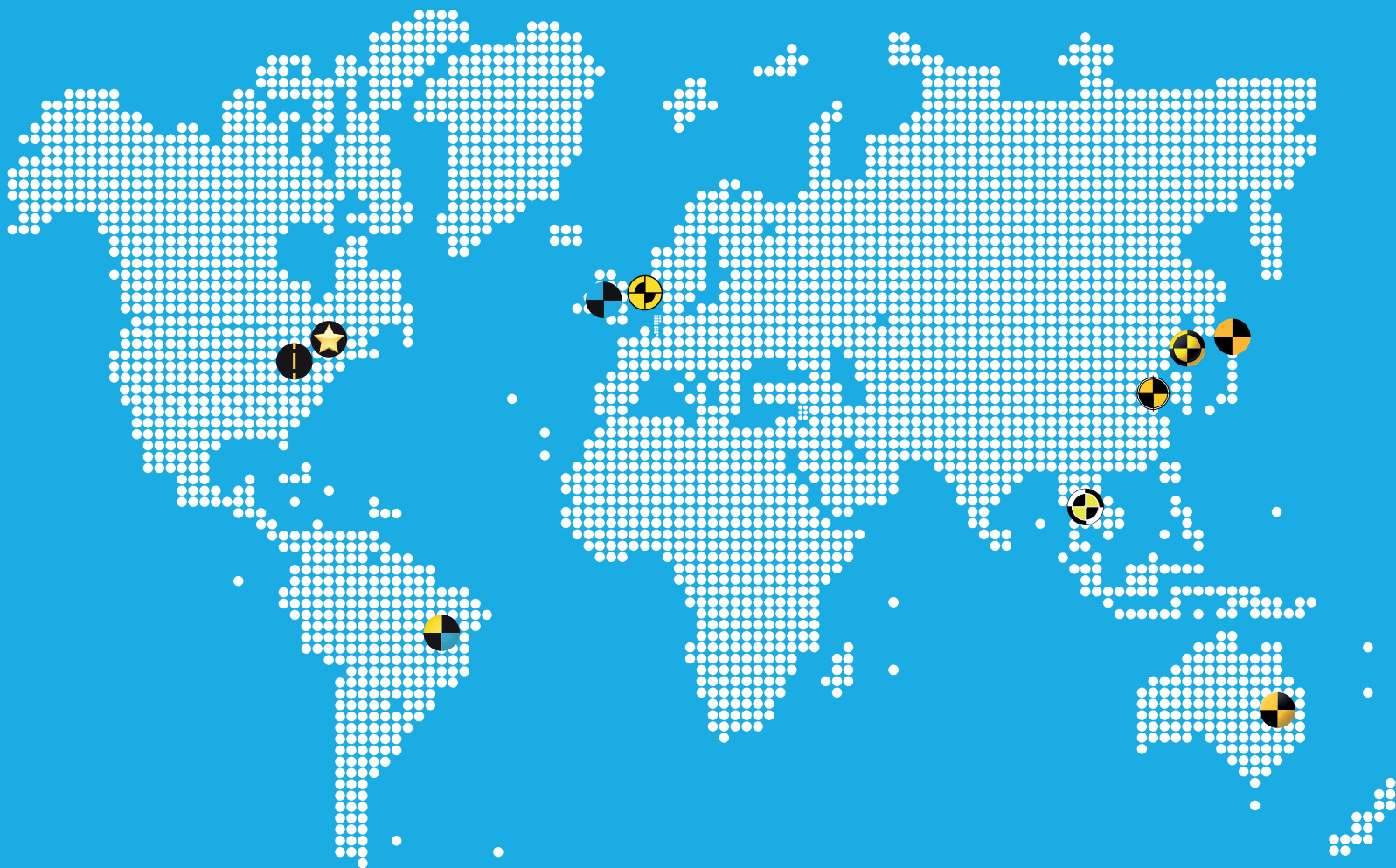
UN Global Plan for the Decade of Action 2021-2030  
<https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030>

World Forum for the Harmonization of Vehicle Regulations (WP. 29)  
<https://unece.org/transport/vehicle-regulations/world-forum-harmonization-vehicle-regulations-wp29>

ISO 39001  
[https://www.iso.org/files/live/sites/isoorg/files/developing\\_standards/docs/en/ISO\\_39001\\_Startup\\_Guide\\_2017-06.pdf](https://www.iso.org/files/live/sites/isoorg/files/developing_standards/docs/en/ISO_39001_Startup_Guide_2017-06.pdf)

NAME OF PROGRAMME	COUNTRIES	WEBSITE
ANCAP Australasian New Car Assessment Program	Australia and New Zealand	<a href="http://www.ancap.com.au">http://www.ancap.com.au</a>
ASEAN NCAP New Car Assessment Programme for Southeast Asia	Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam	<a href="http://www.aseancap.org">http://www.aseancap.org</a>
C-NCAP China New Car Assessment Programme	China	<a href="http://www.c-ncap.org">http://www.c-ncap.org</a>
Euro NCAP European New Car Assessment Programme	All 27 countries in the European Union (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden) and United Kingdom	<a href="http://www.euroncap.com">http://www.euroncap.com</a>
Global NCAP Global New Car Assessment Programme #SaferCarsforIndia #SaferCarsforAfrica	India All countries in Africa	<a href="http://www.globalncap.org">http://www.globalncap.org</a>
IIHS Insurance Institute for Highway Safety	United States of America	<a href="http://www.iihs.org">http://www.iihs.org</a>
JNCAP Japan New Car Assessment Program	Japan	<a href="http://www.nasva.go.jp">http://www.nasva.go.jp</a>
KNCAP Korean New Car Assessment Program	Korea	<a href="http://www.kncap.org">http://www.kncap.org</a>
Latin NCAP New Car Assessment Program for Latin America & the Caribbean	All countries in Latin America and the Caribbean	<a href="http://www.latinncap.com">http://www.latinncap.com</a>
NHTSA'S NCAP National Highway Traffic Safety Administration's New Car Assessment Program	United States of America	<a href="https://www.nhtsa.gov">https://www.nhtsa.gov</a>

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