



SAFETY

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**SCORECARD** FY2014 TARGET ACHIEVEMENT RATE: ✓✓ ACHIEVED ✓ MOSTLY ACHIEVED ✗ NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2013 Results	FY2014 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Innovative technology development and active promotion of safety toward a safer mobility society	Establishment of quantitative reduction targets for Nissan-related traffic fatalities, etc., real-world analysis of accidents to build safer cars and implementation of driver-education programs	Reduction from 1995 levels in fatalities and serious injuries involving Nissan vehicles (figures available approx. two years later due to calculation based on publicly released data)	Japan: 61% reduction U.S.: 54% reduction Europe (U.K.): 63% reduction (All as of the end of December 2013)	Figures to be calculated once data is released	—	Continue development of safety technologies	Aim for ultimate goal of virtually zero fatalities and serious injuries involving Nissan vehicles

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**NISSAN'S APPROACH TO SAFETY**

Nissan takes the fundamental approach of pursuing “real-world safety” and aims to help create a society with virtually no avoidable traffic accidents. There were 4,113 deaths resulting from traffic accidents in Japan in 2014, the 14th successive year for this figure to decline. The World Health Organization (WHO) notes that approximately 1.24 million people lose their lives each year in automobile accidents around the globe and warns that if urgent steps are not taken, accidents could become the fifth leading cause of death worldwide by 2030.

Nissan set a target of reducing the number of fatalities and serious injuries involving Nissan vehicles to half of the 1995 level by 2015. In Japan, the United States and Europe (the United Kingdom), this target has already been reached. Today Nissan is engaged in activities aimed at halving this number once again in these markets by 2020. The ultimate goal is a world with virtually no accidents leading to death or serious injury.

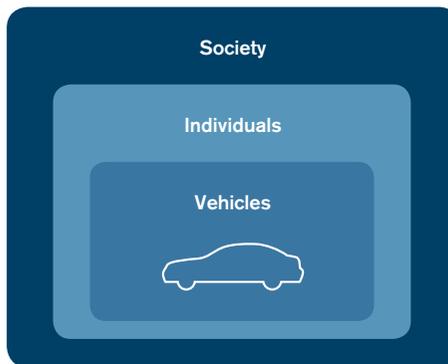
Nissan uses a triple-layered approach, taking measures in the areas of vehicles, individuals and society to help reduce accidents and meet its targets. Nissan is developing and deploying vehicle safety technologies in its vehicles and implementing a comprehensive approach that includes people and the traffic environment.

**Nissan's ultimate goal:**

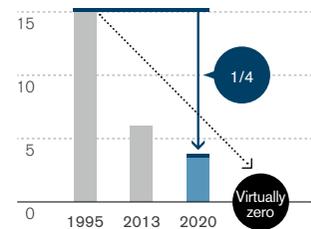
To reduce the number of fatalities and serious injuries involving Nissan vehicles to virtually zero.

**Nissan's approach:**

A triple-layered approach, taking measures in the areas of vehicles, individuals and society.

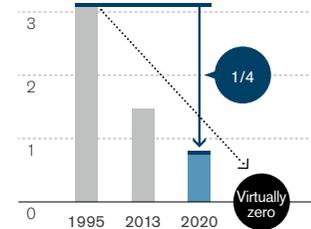


**Japan** Fatal and Serious Injuries per 10,000 Nissan Vehicles



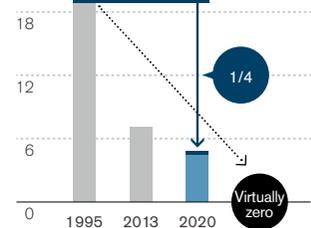
Source: Institute for Traffic Accident Research and Data Analysis

**USA** Fatalities per 10,000 Nissan Vehicles



Source: Fatality Analysis Reporting System

**Europe (U.K.)** Fatal and Serious Injuries per 10,000 Nissan Vehicles



Source: STATS19 data, U.K. Department for Transport

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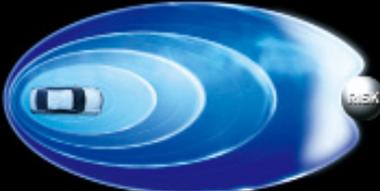
**VEHICLES: DEVELOPING SAFETY TECHNOLOGIES**

Based on its unique Safety Shield concept, Nissan is working to develop automotive technologies from the perspective that people are at the center of the driving experience. The company focuses on solutions that help minimize potentially dangerous conditions. It also provides technologies that aim to activate vehicle systems (for example, the brakes) when a collision is unavoidable, thereby helping to reduce injuries.

**The Safety Shield Concept**

Nissan bases its efforts to help create safer automobiles on its original Safety Shield concept. This defines the conditions surrounding a vehicle in terms of six phases, from "risk has not yet appeared" through "post-crash," and guides development of technologies to help address each phase.

<p><b>Risk has not yet appeared</b></p> <ul style="list-style-type: none"> <li>Distance Control Assist System</li> <li>Navigation-enabled Intelligent Cruise Control with full-speed range following capability</li> <li>Adaptive Front-Lighting System (AFS)</li> <li>Around View Monitor</li> </ul>	<p>Helps the driver to maintain comfortable driving</p>
<p><b>Risk has appeared</b></p> <ul style="list-style-type: none"> <li>Predictive Forward Collision Warning</li> <li>Lane Departure Warning</li> <li>Lane Departure Prevention</li> <li>Blind Spot Warning</li> <li>Blind Spot Intervention</li> <li>Back-up Collision Intervention</li> </ul>	<p>Helps the driver to recover from dangerous conditions to safe driving</p>
<p><b>Crash may occur</b></p> <ul style="list-style-type: none"> <li>Forward Emergency Braking</li> <li>Anti-lock Braking System (ABS)</li> <li>Vehicle Dynamic Control (VDC)</li> </ul>	
<p><b>Crash is unavoidable</b></p> <ul style="list-style-type: none"> <li>Intelligent Brake Assist</li> <li>Front Pre-Crash Seatbelts</li> </ul>	
<p><b>Crash</b></p> <ul style="list-style-type: none"> <li>Zone Body construction</li> <li>SRS Airbag Systems</li> <li>Pop-up Engine Hood</li> </ul>	<p>Helps minimize injuries when a collision is unavoidable</p>
<p><b>Post-crash</b></p> <ul style="list-style-type: none"> <li>Automated Airbag-Linked Hazard Lamps</li> </ul>	



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**High Marks in Fiscal 2014 for Nissan Safety Technology**

- In January 2015, Nissan expanded Forward Emergency Braking to more models and announced that the technology would become standard in nearly all categories sold in Japan, including electric vehicles and commercial vehicles, by the end of fiscal 2015.
- In Japan, the Skyline, X-Trail and Note received the highest Japan New Car Assessment Program (JNCAP) preventive safety performance assessment rating, Advanced Safety Vehicle Plus (ASV+).
- In the United States, the U.S. New Car Assessment Program (US-NCAP) gave its highest rating to the Infiniti Q50 and the Nissan Altima, and the Insurance Institute for Highway Safety (IIHS) gave its top rating to the Infiniti Q50, the Infiniti Q70 and the Nissan Rogue.
- In Europe, the European New Car Assessment Program (Euro NCAP) gave its highest rating to the Nissan X-Trail, the Nissan Qashqai and the Nissan Pulsar.

**Aiming for Virtually “Collision-Free Cars”**

Risks are present in every driving condition. Nissan supports safer driving through the development of preventive safety technologies that help detect risks in advance, provide a warning to the driver and, in emergency situations, intervene to help prevent accidents. Nissan’s Safety Shield is a 360-degree driver assistant system designed to prevent collisions at the rear and side as well as the front of the vehicle.

Nissan has set a goal of providing worldwide optimal mobility and is committed as an automobile manufacturer to the application and popularization of its safety technologies.

**All-Around Drive-Support System in the Infiniti Q50**

**Forward Emergency Braking**

When the Forward Emergency Braking system judges that deceleration is required, it alerts the driver using both a screen display and sound and then generates a force that pushes the accelerator pedal up and smoothly applies partial braking to assist the driver in slowing the vehicle down.

When the system judges that there is the possibility of a collision, it will automatically apply harder braking to help avoid a collision.

**Predictive Forward Collision Warning**

This system, a world first, warns the driver of risks that may be obscured from the driver’s view. It can sense the relative velocity and distance not only of a vehicle directly ahead but also of a vehicle traveling in front of the preceding one.



Predictive Forward Collision Warning.

**Blind Spot Warning and Blind Spot Intervention**

The Blind Spot Intervention system helps alert the driver, when attempting to change lanes, to the presence of a detected vehicle in the blind-spot area. It also assists the driver in returning the vehicle toward the center of the lane.



Blind Spot Warning and Blind Spot Intervention.

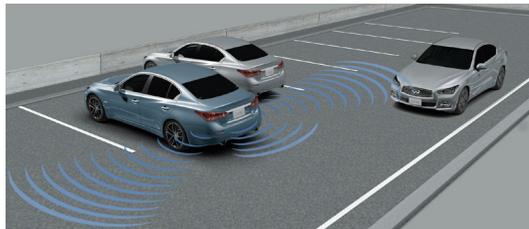
**Lane Departure Warning and Lane Departure Prevention**

The Lane Departure Prevention system senses unintended lane drift and automatically assists the driver to return to the center of the lane.

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Back-up Collision Intervention

The Back-up Collision Intervention system is another significant evolution of driving confidence. Radar and sonar sensors on the side and back of the vehicle help alert the driver to a potential collision with a crossing object while backing up. Should the driver continue moving in reverse, the brakes will automatically engage.



World's first Back-up Collision Intervention.

Around View Monitor (with Moving Object Detection)

The Around View® Monitor with Moving Object Detection provides a virtual 360° view of the parking environment and provides visual and audible warnings for moving objects within the display image.

From Preventive Safety to Autonomous Drive

Nissan is enhancing its preventive safety technologies to support the three basic steps in avoiding accidents: cognition, judgment and action. The company is now developing autonomous driving technologies as one next step in its safety approach. The company believes that Autonomous Drive could help to reduce traffic accidents—more than 90% of which have human error as a contributing factor—and could prove effective in contributing to the realization of a society with virtually no traffic accidents.

Autonomous Drive vehicles equipped with laser scanners and cameras continually monitor their surroundings in every direction. If they come close to other vehicles or other objects, artificial

intelligence selects the appropriate action based on the information stored in its knowledge database. The goal is an Autonomous Drive vehicle that can correctly assess the situation, make decisions and drive safely even in complex traffic environments, such as at crossroads with no traffic lights or when passing parked vehicles.

In a society facing issues including aging populations and urban congestion, Autonomous Drive technologies may one day be able to help reduce traffic accidents, thus providing peace of mind to drivers and increasing opportunities for mobility in the daily lives of the rapidly growing number of senior citizens. Nissan believes that Autonomous Drive technologies are a major breakthrough offering new mobility value. The company is proactively developing these technologies and working to bring them to market. By the end of 2016, the goal is to release “traffic-jam pilot” technology helping to enable safe autonomous driving on congested expressways; this will be followed in 2018 by Autonomous Drive features for operation on multiple-lane roads, including risk-avoidance and lane-changing functions. By 2020, Nissan aims to introduce Autonomous Drive technologies allowing vehicles to navigate crossroads and intersections without driver involvement in operations.



Nissan Autonomous Drive test vehicle.

INDIVIDUALS: NISSAN'S TRAFFIC SAFETY ACTIVITIES

To help create a better mobility society, it is important for as many people as possible to share an understanding of road safety, including drivers and passengers in vehicles as well as pedestrians outside them. Nissan takes part in educational activities to boost this safety awareness, including measures to improve drivers' skills and a range of other safety promotions.

Educational Programs in Japan

Traffic accidents are statistically more likely to occur during the dusk hours from 4:00 to 6:00 p.m. each day. As part of its Hello Safety Campaign,<sup>\*1</sup> Nissan began urging drivers to turn on their headlights earlier in the evening in the Omoiyari Light Promotion,<sup>\*2</sup> launched in 2010.

▶▶ website [\\*1 Click here for more information on the Hello Safety Campaign \(Japanese only\).](#)

▶▶ website [\\*2 Click here for more information on the Omoiyari Light Promotion \(Japanese only\).](#)



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In fiscal 2014, Nissan further enhanced its activities undertaken to date.

- 1 Headlamp Early Lighting Research Lab (website): Nissan added a wealth of new information to this website, including reports on experiments to check how easy it is to see others on the road, from both pedestrians' and vehicles' perspectives, and on surveys of how many vehicles drove with their headlights on.
- 2 Creative Ideas for Twilight-Time Safety Meetings: To bring together people involved in similar traffic safety activities, Nissan held meetings once again, following their launch in 2013. The meetings this year saw a fuller schedule, including presentations on new forms of corporate activities contributing to society.



- 3 Nationwide call for early headlamp lighting: Each year since 2012, Nissan has held a Day of Good Lighting (based on a Japanese play on words) on November 10, working with partners throughout the country to urge drivers to turn on headlights earlier.



- 4 Lighting Girl Project: To increase safety awareness among car fans, "lighting girls" were dispatched to auto-related events around Japan, where they engaged in dialogue to deepen understanding of Nissan's public safety efforts.

In fiscal 2014, the results of these continued activities brought Nissan's Omoiyari Light Promotion a Good Design Award in the "activities/solutions for public, social contribution activities" category. In deciding this award, the Japan Institute of Design Promotion noted that while this was a campaign spearheaded by Nissan, it also brought more than 80 civic and other organizations onboard as part of broad measures to reduce traffic accidents.



**Safety Education in the United States**

Since 2002, Nissan North America (NNA) has voluntarily provided parents and caregivers with peace of mind by offering valuable tools and resources to help determine which child safety seats fit properly in Nissan and Infiniti vehicles sold in the United States through its Snug Kids program. Snug Kids, the automotive industry's first-ever child safety seat fit initiative, provides consumers with tips on how to achieve a secure fit when installing a rear- or forward-facing child seat or booster.

Nissan recently updated its Snug Kids fit guides for 2015 model year vehicles offered in the U.S. market. Every year, different child seats that are currently available on the market are installed in many of the Nissan and Infiniti vehicles to check for fit. A list of recommended child seats for each vehicle is made available to consumers on the company's website.

Since 2012, Nissan has sponsored ThinkFast, an interactive awareness program that educates students about the importance of safe driving practices. The program is set up like a game show, complete with a full production set, mainstream music, an entertaining host, and informative and engaging trivia that appeal to teens. Nissan currently sponsors more than 125 programs at middle

schools and high schools across Tennessee, Michigan, Mississippi and Texas. The company is looking for opportunities to expand the program to additional states where the company has operations.

**Safety Education in Korea and the Middle East**

Nissan Middle East FZE educates children about traffic safety through a dedicated website. Launched in October 2009, the site uses puzzles, pictures for coloring and other features to make learning online fun as well. The website shares easy-to-understand information with elementary school students in Arabic, English and French.

Nissan Korea Co., Ltd. launched its Nissan Kids Safety Campaign in April 2009. This campaign features similar content to that of the Middle East project and uses a website and booklets to educate children on traffic safety.

**Promoting Traffic Safety in China and Indonesia**

Traffic safety has become an increasingly important issue in China, which is seeing a rapid increase in the number of cars on the road. In 2005 Nissan (China) Investment Co., Ltd. (NCIC) hosted its first safety program to improve drivers' skills and safety awareness in cooperation with the China Road Traffic Safety Association. Many customers, government officials and media representatives attended the forums, which featured programs for learning braking, cornering and other driving techniques from qualified instructors, contributing to improved understanding of traffic safety. Programs for eco-driving skills were also included. Today these activities are implemented by the passenger automobile division of Dongfeng Motor Company Ltd., as part of the Nissan Technology and Safety Driving Forum, a program of activities in which dealerships also participate.

In August 2014, NCIC helped put on the 2014 China Road Traffic Safety Forum in Beijing. Nissan presented its Safety Shield approach and other fundamental concepts of its work on road safety, helping to deepen the discussion among many participants on issues related to people, vehicles and traffic-safety-minded road construction. Debate also focused on the theme of "a deep look at traffic accidents in China and the triple-layered concept,"

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producing ideas for feasible safety initiatives based on Nissan's triple-layered safety approach.

NCIC has also held the Nissan Cup event each year since 2006. Taking an online quiz format, this contest aims to increase traffic safety awareness and promote knowledge of safety and environmental protection issues among students aged 8–16. In 2014 a total of 2,809 young people took part.

In Indonesia, the company started the Nissan Smart Driving program as a way to emphasize the importance of traffic safety. The program started out as a cooperative project with a lifestyle magazine designed to promote safe driving habits, but the scope of activities has since broadened to include hands-on safety workshops led by driving instructors for university students.

**Nissan Safety Driving Forum in Emerging Markets**

Nissan has launched the Nissan Safety Driving Forum program in emerging markets as part of its efforts to promote safer mobility. The aim is to enhance road safety awareness among as many of its customers as possible.

In fiscal 2014, the forum took place in India for the third straight year, expanding to include events in eight midsized and large cities (a steady increase from three cities in fiscal 2012 and five in fiscal 2013). Through instruction in the proper wearing of seatbelts and simulations of the safety equipment Nissan provides in its vehicles, the company worked to enhance participants' safety awareness. Even customers who were unable to participate in the forum gave high marks to this program for its use of social media channels to share event content with a broader audience. The Nissan Safety Driving Forum will remain a part of the company's outreach going forward.

In fiscal 2014, the Nissan Safety Driving Forum was also introduced to Russia. Nissan advocated the importance of safe driving through driving exams using simulators and hands-on activities with safety technologies.

**Nissan Europe Safety Event for Employees**

In October 2014, the CSR team at Nissan Europe S.A.S. (NESAS), with cooperation from the French Red Cross and its local bureau

in Saint-Quentin-en-Yvelines, held safety activities for employees titled "Blue Citizenship—Solidarity and Information Event." Some 20 employees took part in this event, which aimed to increase awareness of emergency lifesaving techniques. Following demonstrations by Red Cross staff of cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) use, the participants tried the techniques themselves using training dummies.

In France, around 50,000 people annually go into cardiopulmonary arrest. NESAS has placed AEDs in its business locations since 2012; if employees know how to use them, they will be ready to save lives when the time comes. The CSR team is planning further cooperation with NPOs and other external partners to increase traffic safety knowledge as well.

The October 2014 event also saw NESAS present to the French Red Cross a donation of around €900 collected from employees in the form of small change.

**Partnership with the FIA for Greater Safety**

Nissan and the Federation Internationale de l'Automobile (FIA) jointly announced at the Mondial de l'Automobile (Paris Motor Show) that the two organizations will form a partnership to make the world's roads safer through the FIA Action for Road Safety campaign. Nissan is an official supporter of the FIA's innovative awareness-raising campaign, which was launched in 2011 in support of the United Nations Decade of Action for Road Safety.\*1

The new partnership will see Nissan support and promote awareness campaigns worldwide—in particular, Action for Road Safety's Golden Rules for Safer Motoring\*2—with the

aim of combating a global scourge that results in the deaths of approximately 1.24 million people annually, with 50 million more being injured each year.



**SOCIETY: WORKING TOGETHER WITH SOCIETY**

**Nissan believes it is possible to help create an even safer mobility society by using information from the traffic environment surrounding the vehicles on the road. Together with a wide range of governmental agencies, universities and companies, it is participating in various projects intended to promote the eventual achievement of a safer, more pleasant mobility society utilizing Intelligent Transport Systems (ITS).**

**Helping Reduce Accidents and Congestion with ITS**

In 2006, Nissan launched the ITS Project in Japan's Kanagawa Prefecture. This project seeks to use Intelligent Transport Systems to create integrated networks of people, roads and vehicles, thereby helping to reduce traffic accidents and ease road congestion. The ITS Project gathers and uses information on nearby vehicles and the traffic environment in order to help reduce accidents involving other parties that can be difficult for a driver to see and react to.

Nissan is building on the results of the ITS Project with its development of the Driving Safety Support System (DSSS). This will be an ongoing project promoted by Japan's National Police Agency and the UTMS Society of Japan, an organization operating under its aegis.

The DSSS uses the latest ITS technologies, such as optical-beacon communication tools to connect vehicles and the network of

▶▶ page\_55 | [Click here for more information on the FIA Action for Road Safety campaign.](#)

▶▶ website | [Click here for more information on the Golden Rules for Safer Motoring.](#)

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roads, with the aim of reducing traffic accidents. At intersections with reduced visibility, roadside infrastructure communicates with vehicles to deliver information to drivers via onboard navigation systems, warning them of potential dangers like crossing collisions and helping make sure they notice stop signs, signals and vehicles stopped at lights.

### Helping Reduce Wrong-Way Accidents

Recently Japan has seen a number of serious accidents caused by vehicles traveling in the wrong direction on expressways. Working together with West Nippon Expressway Company Ltd. (NEXCO-West), Nissan has developed a navigation program that uses GPS to notify drivers of vehicles driving the wrong way on an expressway. The system detects wrong-way vehicles based on GPS coordinates, maps, traveling speeds and other data. The driver of a vehicle going the wrong way receives audible and visual warnings. The Nissan Fuga Hybrid released in October 2010 is the first vehicle in the world to employ this system.

## Messages from Our Stakeholders

### FIA Action for Road Safety

The FIA Action for Road Safety campaign was launched in 2011 to support the United Nations Decade of Action for Road Safety. The campaign involves advocacy at the highest levels to push leaders to commit to road safety both nationally and globally, as well as worldwide road safety campaigns and programs. It is supported by the 237 FIA Member Clubs in 142 countries and by partners, both institutional and private.

Road crashes are a global crisis, with approximately 1.24 million people losing their lives and 50 million others seriously injured every year.

In October 2014, Nissan Motor Co., Ltd. and the FIA formed a partnership in order to work together to promote road safety. Since then, Nissan has promoted the campaign at its road safety educational event, the Nissan Safety Driving Forum in Russia.

As the new motor sport season is starting, the FIA is looking forward to further collaboration with Nissan on road safety.

We believe that together we can make our roads safer.



**Jean Todt**  
President  
Federation Internationale  
de l'Automobile (FIA)