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Traffic safety

Traffic safety policies and philosophy

The automobile has transformed people's lives, bringing mobility, convenience, and the pleasure of driving. In recent years, the automotive industry has made significant advances, particularly in autonomous driving technologies and driver-assist features. The world is also undergoing major structural shifts due to aging populations and the rapid progression of urbanization. Technological innovation in the automotive sector is expected to help realize societies with less urban traffic congestion and more ways for senior citizens to move about safely.

Nissan designs and engineers cars that embody the pleasure and richness of driving while offering a high level of safety. More than 90% of traffic accidents are caused by human error. Our goal is zero fatalities: reducing the number of deaths from accidents involving Nissan vehicles to virtually zero.

To this end, we continue working to help reduce traffic accidents.

Traffic safety management

In 2022, there were 2,610 fatalities in Japan caused by traffic accidents. While this is 26 fewer than in 2021, there are still more than 2,000 deaths per year due to traffic accidents. According to the World Health Organization (WHO), approximately 1.30 million people die each year in traffic accidents globally. Nissan is working to develop vehicle control technologies aimed at significantly reducing accidents by utilizing next-generation LIDAR technology.

We are working to enhance technologies that help lessen the severity of unavoidable accidents and bolster occupant protection.

While pushing forward with technological advancements on the vehicle side, we are also conducting educational initiatives to help raise safety awareness for the motoring public.

Traffic safety achievements

Enhancements to Nissan's safety technology and external ratings received*1

Intelligent Emergency Braking*2 is available on nearly all vehicle categories sold in Japan, including EVs and commercial vehicles, and standard on all major models. In the U.S., Automatic Emergency Braking is standard equipment on substantially all light duty vehicles and trucks. Otherwise in North America and Europe, Intelligent Emergency Braking is available on key models.

Our vehicles have earned high safety ratings on many public and governmental tests held in various regions. Nissan is actively participating in industry activities such as those organized by the Japan Automobile Manufacturers Association (JAMA) to promote the vehicle safety measures activities and the strategic standardization activities. Nissan contributes to the creation of the international regulations (WP29) and de jure standards (ISO) of "performance evaluation test methods" for various safety technologies such as "intelligent emergency braking".

*1 Click here for more information on major external safety ratings (Based on 2022 assessments) [>>> P160](#)

*2 Automatic emergency braking in North America

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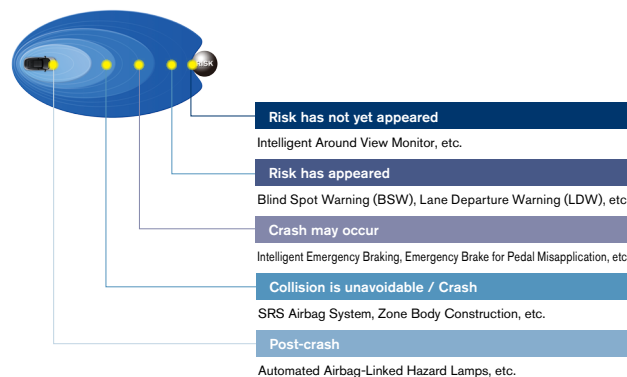
Aiming for Virtually Collision-Free Cars

Our Safety Shield concept helps support the safety of vehicle occupants in a variety of scenarios from a comprehensive perspective, from accident prevention and avoidance to occupant protection.

For example, during normal driving or parking, sensors and cameras can monitor vehicles and pedestrians that may be difficult for drivers to see; this supports drivers and allows them to drive with peace of mind.

We are committed as an automobile manufacturer to widespread availability of our safety technologies.

Safety Shield *1



Dissemination of Advanced Driver Assistance Technologies: ProPILOT/ProPILOT Assist

ProPILOT/ProPILOT Assist was originally brought to market in 2016. In September 2019, ProPILOT2.0/ProPILOT Assist2.0 was equipped as standard in the all-new Nissan Skyline hybrid. The technology is highly acclaimed, winning Best Innovation Award in the 2019-2020 Japan Car of the Year awards and the RJC Technology of the Year at the RJC Car of the Year awards.

We are progressively deploying ProPILOT/ProPILOT Assist globally in a wider range of vehicle types. In total, more than 2,273,000 vehicles equipped with ProPILOT/ProPILOT Assist have been sold as of the end of March 2023.

Driver-assistance technology leading to a dramatic enhancement in collision avoidance performance

Nissan believes that driver-assistance technology, by which some highly complex accidents can be avoided, will be instrumental in enabling its customers to use their vehicles with confidence in the upcoming era of autonomous driving. We have therefore announced ground truth perception technology, which is a driver-assistance technology that can lead to dramatic enhancements in the collision avoidance performance of vehicles. Aiming to complete the development of this technology by the mid-2020s, Nissan will first make ground truth perception technology available on selected new models, and on virtually every new model by fiscal 2030.

Expansion of ProPILOT

*As of March 31, 2023



*1 Click here for more information on Nissan's Safety Technology Development Concept. https://www.nissan-global.com/EN/INNOVATION/TECHNOLOGY/ARCHIVE/SAFETY_TDC/

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Installation of SOS Call (HELPNET)

SOS Call (HELPNET), an advanced automatic accident reporting system that enables data and voice communication to a dedicated operator in case of emergencies such as a traffic accident, sudden illness, risk of an accident, and tailgating and other forms of road rage, is now installed in the Nissan DAYZ, the first in the minicar segment in Japan. We will be successively expanding the number of models where the system is available, including the Nissan ROOX, Nissan Kicks, Note, Note Aura, X-Trail, Serena, Nissan Ariya, and Nissan Sakura in Japan. There are two types of notifications: automated notification when the airbag is triggered in a traffic accident, etc., and manual notification using the SOS call switch. After the call is made, a dedicated operator uses the information obtained from the vehicle to quickly contact the fire command center or the police, and supports the driver for example by arranging for ambulances.

Applying NASA technology to develop AI for autonomous vehicles

To realize fully autonomous city driving, we are developing the Seamless Autonomous Mobility system (SAM). SAM will be able help cars navigate unforeseen situations like accidents, road construction, and other obstacles. When autonomous decision-making is difficult, a remote operator can draw up an ideal route to help manage the situation and send it to the vehicle for execution.

Promote educational initiatives for traffic safety activities

Traffic accidents are statistically more likely to occur during the dusk hours from 4:00 to 6:00 p.m. As part of the Hello Safety Campaign*1, Nissan's Omoiyari Light Promotion*2 urges drivers to turn on their headlights earlier in the evening. We have actively supported this campaign since 2010 and promote civic activities with two-way communication to raise public awareness of traffic safety.

Furthermore, we launched a traffic safety project*3 in 2018 together with a research department in Niigata University. One of the outcomes from these efforts is the "Wheel Spinning (*Guru-Guru*) Exercise,"*4 developed in March 2020, which promotes and encourages safe driving among senior drivers. Furthermore, in March 2021, in collaboration with Niigata University, Kitasato University, and Sagami Women's University, we established a virtual laboratory called the Traffic Safety Future Creation Lab.*5

We aim to realize a mobile society with virtually zero traffic fatalities through standing by anyone who has concerns or inconveniences in their daily life and mobility.

Omoiyari Light Promotion



Nationwide voluntary participation in the campaign to turn on headlights

On and around November 10, designated "Day of Good Lighting," we supported people in 96 locations nationwide from Hokkaido to Kagoshima in taking the initiative to encourage drivers to turn on their headlights before dark. In addition, the TRY-LIGHT CHALLENGE debriefing session was held in December 2022 where participants from around Japan shared their ideas and tips to get drivers to turn on their headlights. The participants encouraged each other, and the session gave rise to new insights.



TRY-LIGHT CHALLENGE debriefing session

*1 Click here for more information on the Hello Safety Campaign. (Japanese only) <https://www.nissan-global.com/JP/SUSTAINABILITY/SOCIAL/SAFETY/HELLOSAFETY/>

*2 Click here for more information on the Omoiyari Light Promotion. (Japanese only) <https://www.omoiyari-light.com>

*3 ToLiTon (Town, Life, and Transportation) Safety Initiative This project was named to promote proposals to town, life, and transportation that are not bound by past conventions.

*4 Click here for more information on the "Wheel Spinning (*Guru-Guru*) Exercise". (Japanese only) <https://www.nissan-global.com/JP/SUSTAINABILITY/SOCIAL/SAFETY/HELLOSAFETY/TAISOU/>

*5 Click here for more information on the Traffic Safety Future Creation Lab. (Japanese only) <https://www.nissan-global.com/JP/SUSTAINABILITY/SOCIAL/SAFETY/HELLOSAFETY/LAB/>

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Throughout the year, the Global Headquarters Gallery hosts daily presentations at dusk by “Nissan PR specialist” staff members about the Omoiari Light Promotion. These activities have helped our Omoiari Light Promotion steadily gain broad acceptance among the public.

Traffic safety future creation lab

This laboratory is prioritizing reduction of the number of traffic accidents caused by elderly drivers, which has become a major social problem.

Activities this year included performing an evaluation experiment with the participation of elderly drivers on the “effective field of view*1 measurement system” developed last year, as well as a visibility evaluation experiment of colors of pedestrian clothing using character figures and an actual car. Research results will be published on an ad-hoc basis.



“Wheel Spinning (Guru-Guru) Exercise” connecting the real to the Metaverse.

Also, to help the “Wheel Spinning (Guru-Guru) Exercise,” to become more widely known, we implemented 1) a nationwide online experiential session and 2) a simultaneous real and virtual experiential session by connecting “NISSAN CROSSING” in Ginza with a virtual gallery in the Metaverse. From now on, we will continue to create and disseminate information on traffic safety solutions that will help elderly drivers to drive safely and with greater confidence for many years to come.

Proof-of-concept experiment for community development with using new mobility

Nissan is involved in the “Namie Smart Mobility” proof-of-concept experiment for on-demand vehicle dispatch services in the Hamadori Region of Fukushima Prefecture. To build a new mobility service that will serve as a transportation infrastructure to support regional activities, this year we will validate public transportation services with a view toward future commercialization through proof-of-concept

experiments to be conducted throughout the year. From October 2022, “mini digital stops” for actual retail stores were introduced to improve and expand convenience for users and support driving customers to such stores. Furthermore, in January 2023, the “Namie Smart Mobility” fare was established moving the project into the final stage of proof-of-concept experiments toward commercialization. By making the service for-pay, we will verify the degree to which users and the community are willing to accept a service with fares. We also aim as build a model to commercialize sustainable mobility services, including future service expansion, even in areas with low population density. We are also pleased to note that in October 2022, this initiative received the “GOOD DESIGN AWARD” sponsored by the Japan Institute of Design Promotion.



Visibility evaluation experiment of colors of pedestrian clothing using character figures and an actual car



Namie Smart Mobility

*1 Effective field of view refers to the range at which drivers are able to discern objects that they need to identify.