

Auto Expo 2012
DENSO PRESS CONFERENCE REMARKS
“DENSO’s Footprint in India and
Activities Towards the Next Growth”

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Good afternoon, ladies and gentlemen. Welcome to DENSO’s press briefing.

DENSO is participating in Auto Expo for the first time. Now, I would like to introduce our latest technologies and business here in India, in order to help you understand our company a bit better.

DENSO was established in Japan in 1949 as a manufacturer of radiators, starters, alternators, and other automobile components, and it has a history going back more than 60 years. Now, the company has more than 200 subsidiaries and affiliates in 35 countries and regions in the world, and it employs more than 120,000 people. Our customers include all the world's major automobile manufacturers. Regarding sales, DENSO ranks second among all automobile component suppliers in the world, and also ranks among the “Fortune Global 500.”

DENSO promotes research & development in areas of environment, safety, comfort, and convenience. Our strengths include a broad range of technologies and research & development performed from a vehicle system perspective. These strengths allow us to offer a range of systems consisting of various products and technologies to automobile manufacturers.

Today, DENSO is promoting technology development specifically focused on three points: first, the reduction of CO2 emissions for environmental conservation; second, safety improvement aiming toward a society without traffic accidents; and third, improvement in comfort and convenience through information communications and HMI, or human machine interface.

Let me start with our technologies that aim to cut CO2 emissions.

Worldwide, CO2 emission regulations have become increasingly strict, people are more concerned about the environment, and energy costs are rising. In response to these trends, improvements are rapidly being made for internal combustion engines including stop/start systems, not only for hybrid vehicles and electric vehicles. We anticipate that vehicles with internal combustion engines, including hybrid vehicles, will still make up the majority of automobiles in 2020, but in the longer term, it is expected that electric vehicles including those powered by a fuel cell battery will become mainstream.

Therefore, in response to the trend of more stringent CO2 emission regulations, DENSO promotes development focused on two technology areas: one consists of internal combustion engines, which are currently the mainstream; while the other regards hybrid vehicles and electric vehicles, for which the market is expected to grow in the medium and long term.

By bringing together its wide range of technologies, we have now completed the development of fuel-efficient technology for gasoline vehicles/diesel vehicles and for those using start/stop systems. This technology can help achieve the objective of less than 130 g CO2/km in Europe, which is the strictest CO2 regulation in the world. At present, DENSO is further advancing technology development toward the objective of 95 g CO2/km.

Meanwhile, DENSO is also promoting technology development in order to offer products with higher performance at lower cost regarding the various types of hybrid vehicles, plug-in hybrid vehicles, and electric vehicles that are currently under development all around the world.

Now, I am going to talk about our approach to safety technologies.

Did you know that traffic accidents around the world account for 1,300,000 million deaths? All of us in the auto industry want to see a society where there are no traffic accidents. Since beginning research into airbag sensors in the 1970s, DENSO has developed safety related products and systems that integrate these products with ECUs. These help prevent accidents and also protect cabin occupants in case of such an event.

However, that is not enough. Accident data analysis shows us that 75 percent of accidents are caused by driver error or driver behavior. DENSO considers it important to ensure safety in case of an emergency and to create a driving environment that enables drivers to always control their vehicles with a feeling of confidence. With this in mind, we are further advancing technology development to support driving at every moment. Our latest technologies involve: a collision avoidance system using the integrated core techniques of sensing, vehicle control and HMI; and a driver monitoring system that monitors a driver's physical conditions and concentration when driving and alerts the driver when necessary.

In addition, we believe that new technologies such as vehicle-to-vehicle and vehicle-to-infrastructure communications technology will become an important element in reducing accidents at intersections. DENSO participates in verification tests on vehicle-to-vehicle communications and vehicle-to-infrastructure communications in Japan, the U.S., and Europe.

DENSO will take advantage of its accumulated technologies in an effort to contribute to realizing a safe and secure automotive society for not only drivers but also all other people.

Now, Personal computers and mobile terminals allow people to stay online and connected everywhere, all the time. The situation is the same in India, where the government introduced a 35 dollar tablet PC and the diffusion rate of mobile phones is over 70 percent. New vehicle users, primarily young people, will expect to be online even inside their vehicles. To meet these needs, DENSO has been developing communications technologies and services for drivers to help them

use their desired information and services in a car over the Internet safely and comfortably. Last year, the service was launched in North America, and another service is also scheduled to be released in Japan this year.

Moreover, we are advancing the development of HMI technology. This technology allows drivers to obtain necessary or desired information in a safe and appropriate way and at a proper timing. More specifically, our HMI technology combines various HMI-related products, such as instrumental cluster, a car navigation system, and a remote touch controller.

So far, I have explained DENSO's general history and its latest technology development. Now, I would like to talk about DENSO history and present business deployment here in India.

The history of DENSO in India dates back about 30 years.

In 1984, we began the production of starters, alternators, windshield wiper motors with 114 employees in Noida, U.P.. Now, we have grown into a company with over 2,400 employees working at six group companies, including four manufacturing companies.

In addition to the products since the company's foundation, we produce car air conditioning systems, radiators, and products for motorcycles such as generators and capacitor discharge ignition systems(CDIs).

Moving ahead of other companies, DENSO began to manufacture electronic control systems for gasoline engines in India. Since 2000, we have been supplying engine ECUs, fuel pumps, injectors, and other products manufactured for Maruti Suzuki's Wagon R as first vehicle model. Today, we are producing about 1,000,000 electronic control system units per year to carmakers in India. DENSO also serves as a front runner in automotive electronization and supports car makers in India.

Also, since the 1980s, DENSO has entered into a technical alliance with Subros Limited, Pricol Limited, and Lucas-TVS Limited, and we have been developing businesses oriented to India.

India has the second-largest population in the world, and now, a big wave of motorization is sweeping in India. In response to this trend, we are working to reinforce our business capability.

DENSO decided to post an executive in charge of operations in India, and I came here to India to take this post in June 2010. We are now making efforts to strengthen management capability. Specifically, the operational functions for India, which used to be conducted by regional headquarters in Thailand, have been transferred to India. We will also enhance our production, marketing and R&D capabilities with a target to increase fiscal year 2015 sales by 2.5 times of the level of fiscal year 2010.

First let me tell you our efforts to enhance production facilities.

In February 2010, the company invested about 1 billion rupees to increase production capability at a company that manufactures car air conditioning systems in Bangalore, Karnataka. This investment has increased the total floor area of the plant by 2.8 times to 14,000 square meters.

Moreover, about 3 billion rupees will be invested to build a new plant in Haryana. DENSO has already acquired a 150,000 square-meter site for this plant, and we are now preparing to start production in 2013.

To strengthen marketing capabilities, in addition to our business sites in Gurgaon and Bangalore, DENSO has set up branches in Pune and Chennai last year to better respond to customer needs in these regions. In addition, in order to promptly meet the demands of local dealers, DENSO maintains a service network consisting of 123 bases around the country, and we plan to continue expanding this network.

However, for continuous contribution to motorization in India, it is not enough to just expand production and business sites. We believe that it is also necessary to gain a deeper understanding of the vehicle usage in India and to develop new products accordingly.

For the purpose of understanding the needs of the growing markets of India and other countries, DENSO set up a company-wide project organization in 2009 and conducted market research on our 23 major products, including car air conditioning systems, starters, and alternators. In India, we held interviews and conducted questionnaires survey involving about 2,000 users and about 50 car dealers. After reviewing the results, we determined the prices, functions, and performance expected by Indian customers, and launched product development activity intended for India.

As our first products developed through this activity, we created new heat exchangers including a radiator, heater core, condenser, and evaporator. DENSO carefully assessed the needs of the Indian market to determine optimal specifications, while also using India's locally made and widely available materials. We started supplying them for the Toyota Etios in 2010. We have proceeded to supply these products for other car models in India, as well as deploy the technology to Indonesia and Brazil.

The technologies and know-how that we have cultivated during the development of these heat exchangers are shared globally and utilized for product development in many countries.

At the end of 2013, DENSO will launch a next-phase engine management system onto the market. The system mainly consists of an engine ECU, a fuel pump, and an injector, and it can comply with Bharat stage V and fuel-efficiency regulations that are expected to be introduced in future.

Moreover, DENSO is striving to develop products for motorcycles. We are advancing technology development in order to offer products that fit the usage environment and meet the need to improve fuel efficiency in India at a competitive price.

DENSO is also promoting development for safety technologies that meet the Indian market needs. For example, airbag systems are considered to be mandatory installed to vehicles marketed in India on and after 2014. To meet this trend, we are developing airbag ECUs, while taking into considering the possibility of producing them in India.

In order to identify needs in India more precisely, we require an organization that can directly listen to local demands.

For this purpose, DENSO is about to open a technical center in Gurgaon, Haryana, which will be DENSO's sixth technical center in the world. This technical center will be built at a cost of about 1.5 billion rupees, and it will undertake the development of products such as powertrains, electric and electronic systems, information and safety systems, and small motors—which reflect customer need in India more directly than ever.

For thermal components, DENSO has also established a joint venture company with Subros Limited in January 2011, in order to design car air conditioning systems. The joint venture company integrates the design operation, making design operation more efficient and better serving the needs of a wide range of customers.

Toward this aim, DENSO will increase its efforts to employ more Indian engineers, bring together the technical center and other DENSO technical centers around the world, and develop products that reflect the various needs of customers.

Motorization in India is entering a new era. Aiming for the future development of automobile society in India, DENSO continues to contribute to the further development of the Indian auto industry together with customers in India. We appreciate your continued interest in DENSO.

Thank you for your kind attention.

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