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**Bosch Automotive Technology: Well prepared for the
shift in global markets**

Dr. Bernd Bohr,
Chairman of the Bosch Automotive Group,
at the New Delhi Auto Expo
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Ladies and Gentlemen,

This year's Auto Expo is taking place in a period of transition. In recent months, the world has witnessed the scope of this change as Asia's emerging countries have begun to recover from the recession with unexpectedly high growth rates. And while the boom in India's automotive markets in the last three months of 2009 took many of us by surprise, it can certainly be considered a sign of things to come. India's economy is expected to grow by seven percent in 2010, and growth forecasts for Asia's other emerging markets are equally promising. In the next decades, there is no doubt that Asia will play a central role in driving global economic growth. This will also be reflected in the global automotive industry. Experts predict that the world's passenger car fleet will double by 2035, with the vast majority of new cars hitting the roads in India and China. Clearly, to secure its future success, the global automotive industry must balance its focus between mature markets and the growth regions of the future.

In doing so, automakers and suppliers will need to address several structural changes. For instance, they will have to rethink their strategies in light of the growing demand for smaller cars that more people can afford. At the same time, the automotive industry must come up with technological solutions to meet increasingly strict CO₂ legislation. What is more, limited oil reserves and rising fuel prices will drive automakers to step up their development activities for the electrification of the car. And as the number of vehicles on the world's roads increases, passenger safety will become more important than ever.

Responding to all these developments is certainly no easy task. But Bosch is well prepared to meet the challenges ahead. There is no question that the economic downturn hit the automotive industry hard, and made 2009 one of the most difficult years in our company's

history. Despite this, we have remained focused on the essential task of building the future. This means that we have continued, as always, to develop innovative technologies in line with our corporate slogan "Invented for life."

Confident about the future despite recent challenges

Before I discuss exactly what this means, I would first like to take a brief look at our current situation. As of the end of 2009, the Bosch Group has 270,000 associates worldwide, 160,000 of them in our Automotive Technology business sector. In India, we currently have a workforce of some 19,000, with about 17,000 associates working for our automotive group.

The recession has left a clear mark on our result. For 2009, we expect worldwide sales of the Bosch Group to fall by 15 percent, to some 38 billion euros. As a consequence, operating result will be negative. In our automotive businesses, the decline in sales may be as much as 20 percent. In India, however, the year ended on a more positive note. While we experienced a slump at the beginning of 2009, the strong growth in India's automotive markets in recent months enabled us to keep our sales in the country stable. In fact, at some 68 billion rupees, sales in India grew by about 5 percent year on year. Even though this development must be considered against the strong decline we saw at the end of 2008, it is still good news in light of our overall situation for 2009.

Fortunately, there are signs that the situation has stabilized in other parts of the world as well. Bosch Automotive Group sales for the fourth quarter of 2009 will likely be up compared with the same period in 2008 – but they will still be about 20 percent below the 2007 figures. Even so, this improvement will lay the foundation for our growth in the coming year. There have been several encouraging signs over the last few months: orders have begun to improve, and

we have acquired major new projects. On the whole, however, we will need to grow about 35 percent to return to the pre-recession levels of 2007. This will not happen overnight, and could take us until 2012.

Bosch - Well prepared to meet the challenges ahead

Long-term orientation, entrepreneurial independence, and financial stability: these are the principles that have enabled Bosch to keep a strong position compared with its competitors. And they will continue to allow our company to distinguish itself in the future. Staying true to these principles is what allows us to develop innovative technologies that make driving safer, easier, more eco-friendly, and more affordable. Despite the recession, we have kept up R&D expenditure in Automotive Technology. In 2009, investment remained high at some three billion euros. This expenditure went into a broad range of forward-looking projects, including technologies for the LPV segment that improve fuel efficiency and reduce CO₂ as well as other pollutant emissions.

Particularly in high-growth markets such as India, one of the main challenges is ensuring that driving is affordable, but at the same time eco-friendly. The unique requirements of the Indian market deserve special attention here. The majority of India's car buyers want safe, fuel-efficient, and reliable vehicles at a very affordable price, and the automotive industry must respond with the right technological solutions. At Bosch, we have done this by carefully examining the requirements of low-priced vehicles and developing innovative technologies that are well-suited to the segment. As a result, we have been able to come up with specially designed, cost-effective products without compromising on quality.

One example of this has been our successful cooperation with Tata. Thanks to the efforts of our international team of engineers from India, Germany, and China, we have developed a broad portfolio of

systems and components for the Tata Nano. These include the Value Motronic engine management system, a low-cost control unit platform for gasoline engines that is manufactured in India and other emerging markets. Moreover, we have developed the CRS 1.1 common-rail system for the Tata Nano diesel. The system, which will also be produced locally, is the first to feature a high-pressure pump based on a one-cylinder plug-in pump that Bosch has long manufactured for other applications. The reduced number of components required for both these systems makes it possible to keep costs low.

The diesel engine is set to see strong growth in Asia's emerging markets, and will be in particular demand in India, also in the commercial vehicle segment. There are several reasons for its popularity. Not only is diesel technology widely available at an affordable price, the diesel consumes 30 percent less fuel than the gasoline engine. Bosch has also launched a common rail system in India for medium and heavy duty commercial vehicles. By 2013, some two million common-rail systems are expected to be sold in the Indian market.

We believe that the internal combustion engine – whether diesel or gasoline – will continue to command a high share of global markets for the next twenty years. This is why we continue to intensify our research and development activities in the area of conventional drive technologies. With improved direct injection systems, downsizing, turbochargers, start-stop systems, and ultra-efficient alternators, the fuel consumption of gasoline and diesel engines can be reduced by another 30 percent. And many of these components will be produced locally in 2010.

In light of ever stricter emissions standards and limited oil reserves, we have to reduce fuel consumption even further. Accordingly, we have stepped up our research and development activities in the area

of hybrid technologies. Our hybrid systems are set to go into series production in 2010 with new hybrid versions of the Porsche Cayenne and VW Touareg. We have also entered into a strategic partnership with PSA to develop, manufacture, and supply electric motors and power electronics for the automaker's diesel hybrid all-wheel-drive powertrain. Since Indian OEMs have already launched hybrid vehicle models, we see potential for cooperation in this area, too.

We are also hard at work to make the electric car an increasingly common sight on the world's roads. For instance, with our joint venture SB LiMotive, we are collaborating with Samsung SDI to develop lithium-ion battery technology for automotive applications. These batteries must be able to function perfectly under all imaginable driving conditions, and to store enough power to increase the range of electric vehicles to an acceptable level. Above all, the cost of EV battery systems must be reduced significantly.

This is a major challenge, but one that automakers believe SB LiMotive is capable of mastering. Set to go into series production in 2011, our lithium-ion battery cells will be featured in BMW's "Megacity Vehicle" by the middle of the next decade. And we are currently in very promising discussions with several other OEMs. By the end of 2012, we expect to be producing lithium-ion cells to a capacity of more than 600,000 kilowatt hours for hybrid and electric vehicles.

While developing the drive technologies of the future is a central priority, ensuring that personal mobility is safe is also essential. This is another area in which Bosch has pioneered several breakthrough technologies. With ever more people in India owning a vehicle, reducing the number of road traffic injuries and deaths is a growing concern. The results of a 2009 Bosch survey revealed that 84 percent of India's drivers consider safety a very important factor, and almost

half see the ABS antilock braking system as the most important safety feature after the seatbelt. In India, ABS is currently featured in six percent of locally sold vehicles, and we are confident that demand for the system will grow in the coming years.

To meet this demand, we recently opened a new ABS manufacturing facility in Chakan, Pune, where production began just a few weeks ago. So far, Bosch has invested 600 million rupees in the facility, which is set to produce 300,000 ABS units per year. An additional investment of 400 million rupees is planned by 2012. The new site makes us the first global automotive supplier to produce ABS systems locally, and has further strengthened Bosch's standing as a trusted local partner and supplier.

In addition to ABS, our ESP Electronic Stability Program also makes driving safer – studies show that it can prevent up to 80 percent of skidding accidents. Governments in a number of countries have introduced legislation that will make it mandatory in the coming years. As a result, ESP is increasingly replacing ABS in mature markets. Here, too, Bosch can contribute its technological know-how in the Indian market, where we see a great deal of potential for advanced safety systems.

Developing products in the region, for the region

Our activities in India reflect our belief that individual markets can best be served when innovations are developed in the region, for the region. Indeed, many of the technologies we supply to our Indian customers have been developed and manufactured locally. And in fact, we have gone to great lengths to establish firm roots in all of the countries in which we do business. Not only have we built lasting partnerships with our customers in all of the world's regions, we have also focused on localizing our development and manufacturing activities.

The benefits of a strong local and regional presence are twofold. First, as I've already mentioned, it provides us with a better understanding of local needs. Second, by strategically expanding our local activities in areas in which countries have particular strengths, we can build a global network of specialists who can benefit from each others' knowledge and experience. With its highly-qualified engineers, India has a great deal to offer a technology company like Bosch, in our automotive businesses and well beyond. In recent years, we have made continuous investments in expanding our activities at Robert Bosch Engineering and Business Solutions, which develops software and provides software testing services. Since 2006, we have almost doubled the number of associates at the company, to just under 6000 today.

The investments we have made at Robert Bosch Engineering in India are just one example among many that illustrate how important India is to the Bosch Group's future growth. Between 2005 and 2009, we invested some 21 billion rupees in our Indian regional subsidiaries, and we plan to invest another 20 billion rupees in our local activities between now and 2012. More than a quarter of this investment will go into further strengthening the Bosch Automotive Group's engineering capacities in India. Today, 30 percent of our engineers are already based in Asia. This has proven to be a very successful strategy which has made us a trusted partner among OEMs in both mature and emerging markets.

Indeed, our achievements in India and the world's other major markets have shown that the structural changes I have discussed today should not only be considered a challenge, but also an opportunity for future growth. With technologies "Invented for life" and a strong local and regional presence, Bosch is in an excellent position

to contribute its know-how and expertise as we move into a new era of innovation.

Thank you for your attention.