

come back in the evening. It also means that I have zero emissions in my work week. The big benefit comes on the weekend when I want to go to Goa or some places further away, I can still use the same car."

The EV industry is also catching up, but there are challenges. "There are two major issues: Battery cost continues to be a dominant aspect of vehicle electrification and for this reason we see EV demand continuing to be low in India and this is also why hybrid solutions that utilise smaller batteries will be taken up first," says Leverton. "We are already seeing 12V systems in the market but higher voltage systems like 48V are needed to give real benefits to the customer. Second, the absence of electric charging infrastructure means customers are reluctant to take on an EV with the uncertainty of being able to recharge the batteries. This needs to be developed before widespread take up of EVs can become a reality."

Babu says the industry will see

**Fuel toss:** (From left) Mahesh Babu with the Mahindra e2o Plus; N. Raja with the Camry Hybrid; (above right) the Volvo XC90 T8 Excellence

innovation in the battery technology space and that "the range and power to weight ratio" will improve continuously. "Apart from that, development will be expected in the electric drivetrain efficiency. This will make it economically even more viable to drive an EV, thereby having a positive impact on customer satisfaction," he says.

The popularity of BMW i series is seen not only because car lovers and technology geeks such as Sachin Tendulkar and Shah Rukh Khan drive it, but also because BMW has worked hard. "BMW i plays an important role in our future product strategy in India and is a sign of our commitment to this market," says BMW.

Tom Von Bonsdorff, managing director, Volvo Auto India, says, "All the models in India comply with the most stringent emission norms. The vehicles are Euro 6 or BS VI compliant and now have some of the lowest CO2 emissions among all luxury car brands in the world. Besides, the diesel particulate filters (DPF) technology in Volvo cars reduces emission of particulate matter PM2.5 and PM10 by up to 95 per cent. The interiors of Volvo cars are equipped with Clean

Zone carbon filters, which restrict particulate matter from entering the cabin."

But, does incorporating all these technological advances mean the design is compromised? "In the e2oPlus, you would notice a lot of design related elements which work in favour of the car," says Babu. "The incorporation of the rear spoiler, the signature Mahindra front grille and stylish side accent lines are being widely appreciated and they will definitely reflect in our future products." And, as Mahindra has recently acquired Italy based Pininfarina, which is known for its exceptional designs, the future seems promising.

But, are these cars boring? "Quite the opposite," says Folger. "I have driven a B200 E in Germany and it is not a boring vehicle. Basically, you get into the vehicle and for the first 10 seconds, when you accelerate, you are completely speechless. I would love to have such a vehicle in my garage. If you have a normal vehicle standing there, you need to think about filling up the gas tank, maybe lifting it up so that wheels don't get flat, and then there's always this issue of if a vehicle stands for too long, the oil gels



will be the so-called 'early technology adopters'," says Folger. "These are the people who buy iPhones first they are people that go for something because it is new. So, you will see that these early adopters of technology are willing to sacrifice a lot of frills and also security issues. They are not the green party people, because the green party people will say 'what are you going to do with the battery after four to five years, hopefully it will not be dumped into a hole in the ground?' Then there are the enthusiasts who

up and everything, so you need to be very careful about all this. [With an] EV, nothing! You hook it up to a slow charge and you get in—after one year; nothing will change, no worries."

While Tata Motors showcased a Bolt battery electric vehicle in the UK at the Autodrive 16 event to positive reviews by the media, Mercedes-Benz recently announced a vehicle in Paris, under the concept EQ label, which is basically the first glimpse into the future at Mercedes-Benz. The automaker also announced an investment of \$14.5 billion into this new segment because it strongly believes the worldwide demand for

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But, who are the people keen on acquiring these green vehicles? Are they primarily green activists, conscientious citizens or fashion-forward people? "You'll find that the majority of the guys that will buy these vehicles

like fast cars and sports cars and so there will be a certain percentage of those people."

Says Sen: "The Accord Hybrid is aimed at people who understand and appreciate the nuances of a technically superior and future-ready car. We intend to reach out to the opinion leaders and influencers in society with this product. We have already delivered the first shipment of 25 Honda Accords to our customers."

But, what is the way forward? There are two issues, says Folger. The first is about charging stations for these vehicles around the cities and on the highways. "Now, it is completely unclear about who has the mandate to do that and as long as the government thinks that 'oh, it's the automotive manufacturers', that's like saying 'oh, all the auto manufacturers are also in-charge of oil and gas', which is not the case." He says the government needs to define a clear path about who is going to be responsible in the near future for setting up these stations. "For us, it is also interesting where the energy comes from because it only makes real sense to go electric

