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# How The EV Ecosystem is Transforming from Niche to Necessity

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A few years back, when electric vehicles (EVs) were floated as a disruptive concept or an option for sustainable mobility, they had few buy-ins. Some skeptics even dismissed them as a futurist fantasy. But now, I realize that the wheels of innovation have turned on. EVs have not just taken on the bustling urban streets; they are penetrating the rural routes, spearheading a revolution in last-mile delivery. EVs have now transitioned from niche to necessity.

I will narrate my own transition story here. **From the oil-guzzling vehicle with a measly mileage of four km a liter, I have been swift to shift to an eco-friendly and sustainable EV. Now, only EVs power my daily commute. CSM Tech, the company I helm, is committed to embracing green mobility.** We have been empanelled on the United Nations Framework Convention on Climate Change (UNFCC). Also, we are among the 300+ corporates who signed the Climate Pledge to attain a net-zero world by 2040. Our

commitment to a carbon-neutral world is already manifesting in our mobility options. Within our sprawling campus at Infocity in Bhubaneswar, we have earmarked space for an EV charging station. Power to this facility is fed from our transformer. In the future, when our campus operates at its rated capacity, we will offer free charging to all employees who use EVs.



EVs can be a metaphor for cutting-edge innovation, too. I recently had the pleasure of meeting the brilliant minds behind Team Raftar at IIT Madras. These young turks are obsessed with motorsports and have set their sights on building the world's fastest, fully electric, autonomous car by 2025. I got a first-hand feel of the guys toiling hard and unleashing their creative spark to fuel their dreams. What amazed me the most was their use of indigenous technologies to design this lightning-fast racecar. It's a testament to the Make in India vision and perfectly aligns with the Atmanirbhar Bharat concept. But that's not all. Team Raftar also has an awesome synergy between industry and academia. This collaboration brings a whole bunch of benefits to the table – shared expertise, resource pooling, cost reduction, risk management, accelerated research, optimized supply chains, standardization, interoperability, market expansion, policy advocacy, knowledge transfer, and ecosystem development.

I have been closely watching the EV growth story in the Indian landscape. And the silent transformation it is scripting. It is heartening to note that the demand for EVs has doubled from e-commerce and consumer goods companies over the past year. Companies such as Amazon, Hindustan Unilever, Swiggy, Zomato, and Coca-Cola are switching to electric vehicles to cut costs and reduce carbon emissions.

In Delhi, Uttar Pradesh, Haryana, and Punjab, Amul milk distributors are using EVs for last-mile deliveries for ice cream vending. TVS Motor Company has a partnership with Zomato for 10,000 electric scooters over the next two years. Amazon India is partnering with Eicher Motors and Buses for 1,000 electric buses for middle-mile and last-mile delivery. Buoyed by the demand from these companies, more than 100,000 electric cars, and almost one million electric two-wheelers are expected to be sold this fiscal year.

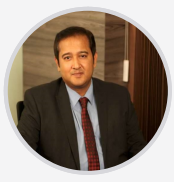
Today, when the chorus for a net-zero world is growing, acceleration in the adoption of EVs is a positive trend. Around one-sixth of global emissions come from road transport, which can be decarbonized with EVs. The growth of EV markets worldwide depends on ambitious policies. With improved range, wider model availability, and increased performance, EV sales have grown exponentially in recent years. The International Energy Agency (IEA) estimates that one in five new cars sold in 2023 will be electric.

The story of EVs is a real page-turner, but like all good stories, it faces its fair share of challenges. A major roadblock for last-mile delivery using EVs is the need for a widespread charging infrastructure. Without reliable and accessible charging stations, the smooth operation of EV fleets can come to a screeching halt. Luckily, governments and private companies have begun investing in charging stations strategically placed in delivery depots and urban centers to expand the charging network.

When it comes to EVs, the thought of range anxiety can send even the most stoic driver into a tizzy. This is the fear that the battery will give out before reaching the intended destination. However, battery technology is constantly breaching boundaries, pushing the limits of EV range. With better battery capacity and faster charging capabilities, range anxiety is slowly but surely becoming less of a thorn in our side.

In the world of last-mile delivery, innovation and necessity go hand in hand. As EVs reimagine the art of delivering goods, our city streets are transformed into cleaner, quieter, and more efficient thoroughfares. EVs are the heralds of a new era where the last mile is no longer a wasteland of pollution and inefficiency but a shining beacon of progress towards a cleaner, greener world.

This blog was originally published in Priyadarshi Nanu Pany's LinkedIn account.



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