



EVCONNECT

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NEWSLETTER

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FROM THE CEO'S DESK

Dear Friends,

I am delighted to present to you the nineteenth issue of EVConnect.

In this edition of EVConnect, we bring to you a conversation with Ms Ravina Raj Kohli of the 'My Right to Breathe Campaign. We discuss the importance of citizens' movements in the environmental context and lessons that can be synthesized for building awareness of EVs. We also bring a host of news updates from national and global frontiers. In addition, we curate a feature on the fast-growing market of shared electric scooters in Indian cities.

New developments are taking place at a very rapid pace, and it is often difficult to keep up with them. These are reported through multiple media channels and are hard to track. This newsletter seeks to bring together several of these developments into one accessible document. We hope this curated and compiled content will come in handy to those who are seeking the latest information on electric mobility.

We hope you find this edition of the newsletter beneficial and share your thoughts so that we can improve further.

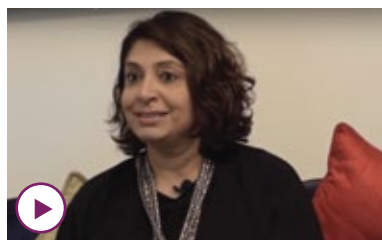


Sincerely,

Dr. OP Agarwal
CEO, WRI India

WATCH

Presenting the monthly EV Connect Powertalk interviews exclusively discussing insights from EV experts. We also present one hand picked video to showcase EV innovations from across the world.



Power Talk with Ms Ravina Raj Kohli
of 'My Right to Breathe' Citizen's Movement



What makes up an electric vehicle?
by Bloomberg Technologies



POWERTALK

IN CONVERSATION WITH MS RAVINA RAJ KOHLI,
OF 'MY RIGHT TO BREATHE' CITIZEN'S MOVEMENT

Interview taken by Neha Yadav, WRI India

"People came together to raise a collective voice in every way possible and to get others to acknowledge the problem. That is the genesis of MRTB - it is an awareness movement and an engagement platform primarily to amplify people's concerns and bring possible solutions to the table."

"When you start a movement, which is of such low interest to the public, and policymakers, to create any reform or change is an uphill task."

Interviewer: Can you tell us about My Right to Breathe?

Ms Kohli: My Right to Breathe (MRTB) started as a citizens' movement primarily to get people engaged with the problem of air pollution. We found that there was no interest or knowledge about the subject, and no traction in the media or in government corridors where it was simply not recognised as a problem. MRTB is three and a half years old and started out as an impromptu citizens' gathering at Jantar Mantar in Delhi. It grew into a hashtag, into a social media platform and into a network of specialists, environmentalists, journalists, lawyers and other citizen groups – all ordinary people. People came together to raise a collective voice in every way possible and to get others to acknowledge the problem. That is the genesis of MRTB - it is an awareness movement and an engagement platform primarily to amplify people's concerns and bring possible solutions to the table.

Interviewer: In your opinion, why are people-centric movements important for environmental issues?

Ms Kohli: The pollution problem gets magnified in cities where people live. People cause pollution, they also consume it. People-centric movements are critical to bringing a change in habits, perceptions and consumption patterns. People are polluters; your personal pollution index may be higher than you imagine it to be. We say that the more you consume, the more you pollute. People centric movements help policymakers understand what matters to the public, where societal perceptions are heading and what people will accept in terms of how they consume resources. Digital media has raised the relevance of people-centric movements manifold.

Interviewer: In your opinion, why are people-centric movements important for environmental issues?

Ms Kohli: When you start a movement, which is of such low interest to the public, and policymakers, to create any reform or change is an uphill task. We have realised that some movements are top-down, but others need to start from the ground up. MRTB started as a top-down movement and we are now trying to engage with more people from different socio-economic backgrounds because air is a great leveller.

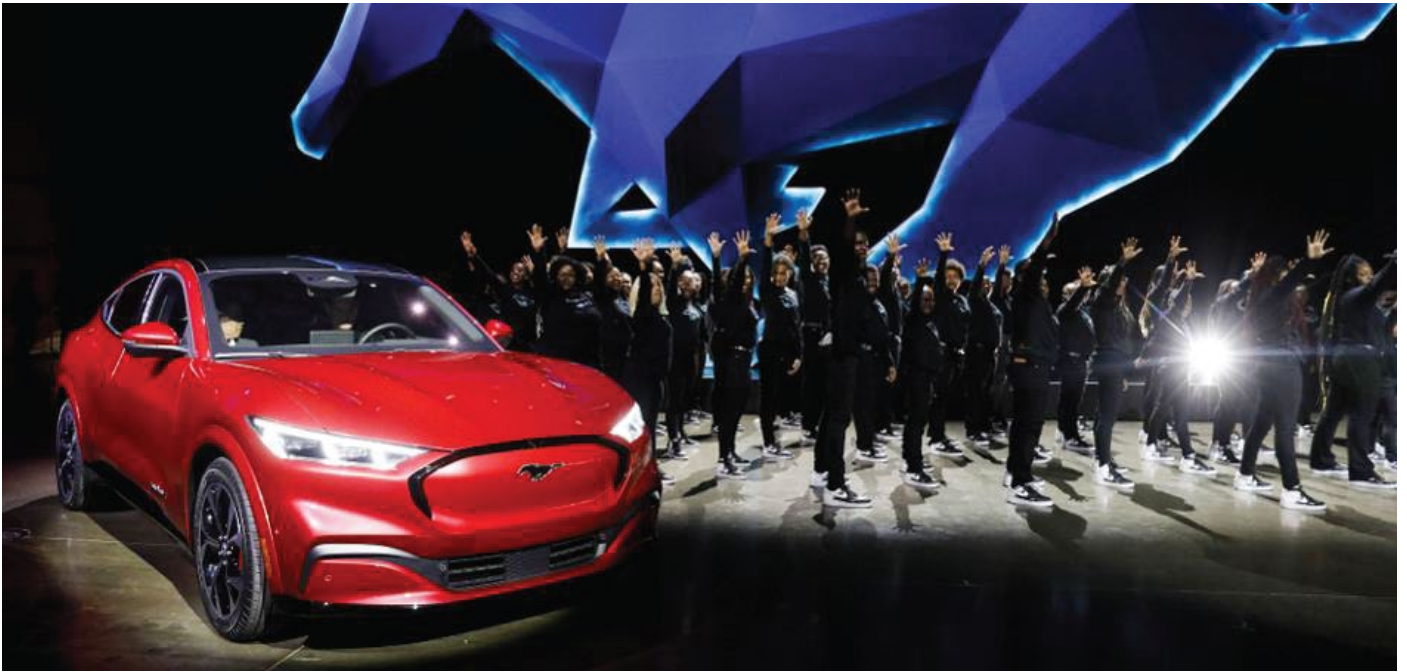
“One learning has been that you must create communication, content, messaging and engagement that is accessible to all.” You cannot choose your audience, and you should not choose your audience. “The second big learning is that non-English communication is far more important than the English language engagement because you are talking about movements that engage with masses. That is where the change really lies.” When the demand is needed from a massive number of people, we need messaging that is very easily understood. The learning was that you have to move away from the technological and scientific aspects and make it relevant to the ordinary person on the street who doesn’t even know that air pollution is a big problem. So that was a big learning for us. I wish we had started this in Hindi rather than English. The third learning was that to push for any kind of change, the people have to engage very heavily with policies. It is not just experts. Honestly, when it comes to sensing pressure nothing works like an amplified public voice. No amount of lobbying or advocacy is going to work as hard as a vote bank. We want to make this a voting issue – where this issue finds a place in a manifesto, and when people on the street actually believe that they will vote for a government that takes cognizance of the issue at hand. But to make it something that people demand rather than something you thrust down their throats has been a learning. Sometimes you need to move away from being an expert to becoming a sufferer, an underserved or someone ignored. “Your movement has not hit home until your messaging goes deep down and becomes a part of a family’s conversation during mealtime. So, our learning has been to extensively use common language and parlance to start changing perceptions and behaviours at the family-level.”

***Interviewer:* In your opinion, how willing are the masses to make a lifestyle change for better environmental quality?**

Ms Kohli: You see another learning has been that the average person is deeply selfish. I don’t think in the urban environment people are ready to make significant changes yet. My sense is that the more affluent you are, the more you will consume and the more you will pollute. You will find a lot more traction with people who value conservation and who value health because their daily wage depends on it. They cannot afford masks and purifiers but realise that their lives can improve significantly with better air quality. Right now, it is not their priority and they are largely fatalistic about it. But the change is going to come from the very people who can’t afford the mitigation and the protection from air pollution. These segments are going to take to solutions like electric vehicles – if they can afford the price point. Thus far, the price point has been one of the forbidding issues in EV adoption. The policymaking has to emphasize `on electrified public transport where EVs can really have a measurable impact. If we want electric vehicles to become acceptable but also desirable, affordability is key. Policymakers need to approach this in a holistic sense.

***Interviewer:* In bringing about an environmental reform in the Indian context, can you shed light on why is it important to consider the grassroots?**

Ms Kohli: The environmental narrative is seen and perceived to be an elitist problem – for example the rich are seen curling their nose about the bad air. Furthermore, such issues have only been covered by niche English newspapers, without becoming a mass-media subject. But that change is starting to happen because movements like MRTB, citizen groups and specialists are understanding that and are addressing the lowest common denominator. They are focusing on the most exposed people – e.g. the man and woman on the street, the workforce, the labour etc. This is where the change will come. Policymaking has to match the narrative. If you look at transport policies, there is a gap. While the narrative targets the grassroots, the solutions are very ‘upper-crust’. If you want masses to use your solutions, there needs to be adequate focus on electric two-wheelers, three-wheelers, public buses, as well as school buses. Most importantly, there needs to be mass adoption of electric public transport across the country for the narratives to match.



UPDATES FROM THE WORLD

Why we need to track the lifecycle of EV batteries | *Market Development and Technology*

Proper recycling and re-use of batteries, retired from EVs, is an important part of mitigating greenhouse gas emissions. Therefore, tracking and tracing used batteries is a fundamental step in the process and one that can be enabled by adopting technologies such as IoT and blockchain. UK startup Everledger and Ford Motor Company have received funding from the Department of Energy (DOE) for an EV battery pilot that tracks the lifecycle of electric vehicle batteries and portable electronic batteries through an IoT and blockchain based system. [Read more](#)

Takeaway for India: Tech-enabled tracking and management of retired batteries will help in responsibly managing waste batteries. Tracking waste batteries will also aid raw material recovery through recycling which is a nascent industry in India. Through IoT and blockchain, stakeholders will have real-time information on when a battery enters its second life and when its raw materials can be recovered through recycling.

BASF's new German facility to supply cathode active materials for EV batteries |

Strategy and Market Development

Chemical company BASF has announced a new battery materials production site in Schwarzheide, Germany. An investment to build the EU electric vehicle value chain, this new state-of-the-art plant will produce cathode active materials (CAM) with an initial capacity to supply around 400,000 electric vehicles per year with BASF battery materials. CAMs determine the efficiency, reliability, costs and size of the batteries. [Read more](#)

Takeaway for India: Cathode active materials are used in most electric vehicles and determine the driving range and battery recharging time. India could also invest in projects to create a stable and localised battery supply chain that uses influential materials like CAMs.



Hyundai will build electric vehicles with EV startup Canoo | *Market Development*

EV start-up Canoo has entered into a partnership with Hyundai Motor Group, Hyundai and Kia's parent company, to make small, cost-competitive and purpose-built vehicles that will resemble shuttles. Aside from this deal, the California based startup will continue to work independently on its own line of EVs which includes a modernised VW microbus. [Read more](#)

Takeaway for India: While many EV startups want to work with OEMs, few actualise the deals. Strong partnership between OEMs and startups can help the transport sector innovate and reduce greenhouse gas emissions.

Efficiency parameters to aid EV battery swapping | *Policy and Strategy*

The Indian government is eyeing 50 GWh of battery capacity by 2030 where one gigawatt hour can provide batteries for roughly 30,000 electric vehicles. The finance ministry has allocated funds for the setting up of giga factories that will make EVs locally. According to reports, the government is also in the process of framing the standards for batteries with NITI Aayog taking the lead in formulating advanced batter standards. Standardised battery technologies will aid EV battery manufacturing as well as battery swapping – a process that is faster than standard re-charging.

[Read more](#)

Electric vehicle makers bet big on battery swapping | *Market development and Technology*

Piaggio, a 100% subsidiary of Italian Piaggio Group, has set up swapping stations for its three-wheeler 'Ape' in Chandigarh, Mohali and Panchkula. Evolet, a two-wheeler EV start-up based in Gurugram, and Mahindra & Mahindra, are also in the process of setting up similar stations for their vehicles. These businesses are betting heavily on battery swapping as it brings down the vehicle price by 40-60% since consumers can buy the vehicle without a costly battery. Instead, consumers subscribe to swapping services wherein they can swap spent batteries for charged batteries at manufacturer-run swapping stations. [Read more](#)

Tata Power plans to have 700 EV charging stations by 2021 | *Market Development*

Tata Power Company Ltd. is planning to increase its network of electric vehicle charging stations. The company presently has 100 fast-charging stations across various cities including Delhi, Mumbai, Bengaluru, Pune and Hyderabad; and plans to add 200 more by the end of next month with the aim of taking this number to 700 by next year. While Tata Power is looking to provide charging stations in public areas, it is also reportedly considering home-based charging systems. [Read more](#)



EV @ WRI

A webinar on corporate adoption of electric vehicles in India

Organised by WRI India's Electric Mobility Forum, this webinar included an expert-led discussion on:

- Effectiveness of B2B and B2C for different EV segments in India
- Challenges and opportunities for B2B model for EVs in India
- Usefulness of B2B model in electrification of buses operating in the private sector
- Role of financial institutions in B2B model for the EV sector

Access the webinar presentation [here](#)



EV FEATURE

The electric scooter capital of the world *by Kuwar Singh, Quartz India | February 2020*

- India's scooter rental apps now own more than 15,000 vehicles
- Most of the fleet is based in the country's tech capital, Bengaluru
- Bengaluru is home to the country's two biggest scooter sharing apps, Bounce and Vogo

India now leads the world in scooter sharing.

The fleet of the country's scooter rental apps has crossed 15,000, which is higher than that in the US and many European countries, according to a report by Unu, a German manufacturer of electric scooters.

The fleet is almost entirely based in India's tech capital, Bengaluru, which is also home to the country's two biggest scooter sharing apps, Bounce and Vogo. "Bengaluru is, as of 2019, by far the global scooter sharing capital," says the report.

Most of the growth in the global scooter sharing industry has occurred in the past few years. In 2019 alone, the worldwide fleet has more than doubled from 25,000 to 66,000, according to the report.

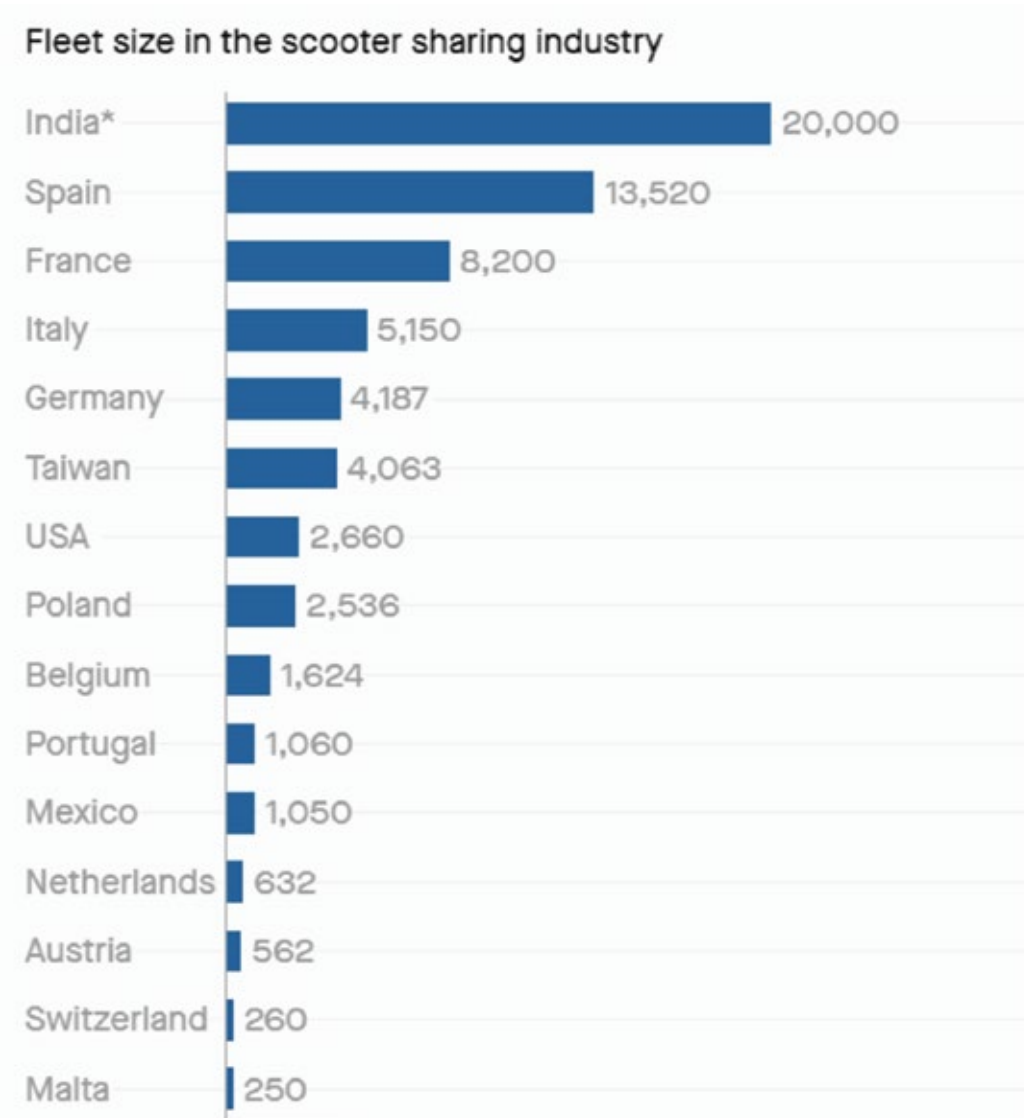
In India, the report estimates that Vogo and Bounce currently have a fleet of over 7,000 scooters each. Both the companies scaled up this year, flush with investor cash. India's biggest cab aggregator, Ola, which in turn is backed by Softbank, invested in Vogo in December 2018. Meanwhile, Bounce raised \$75 million in a funding round led by American venture capital firms Falcon Edge and B Capital earlier this year. Uber and Ola are both adding motorcycles and scooters to their fleet in India in a bid to offer lower fares. Since it does not involve driver fees, scooter sharing presents urban Indians with an even cheaper alternative.

Scooter sharing firms, though, face a tough challenge expanding to cities beyond Bengaluru. The dockless scooter sharing model that Bounce and Vogo have pioneered—a customer can pick and drop the scooter at a place of their convenience—makes it necessary for them to build a high density of scooters in any city. The convenience of driving a scooter on urban roads would be impeded if customers are forced to take long walks to get to their scooter.

Pumping oil

While the rest of the global market for shared scooters is almost entirely made up of electric scooters, Indian firms' fleet primarily runs on gasoline (petrol). Due to the sharp growth in the fleets of the Indian companies this year, the dominance of electric scooters in the global fleet fell from 97% to 70%, the report says.

Bounce and Vogo are looking to expand their fleet to 100,000-scooters. "Bounce and Vogo announced plans to increase the share of electric vehicles in the coming years. The competitor Fae Bikes provides electric scooters, but is by far smaller than the big two," said Enrico Howe, scooter sharing research lead at Unu.



Source: Unu | as of August 2019 | *Indian operators don't reveal fleet size. Estimates are 15,00000,000

COURTESY FOR THE ARTICLES

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Bloomberg Technologies - <https://m.youtube.com/watch?v=7F5nTnw9WGQ>

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