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# FUTURE MOBILITY NEWS

THE EXCLUSIVE EVENT ON FUTURE MOBILITY SOLUTIONS

FUTURE MOBILITY SHOW | FEB 28, 2019, BANGALORE INTERNATIONAL EXHIBITION CENTRE, BENGALURU | FOR PRIVATE CIRCULATION ONLY | OFFICIAL NEWS LETTER OF THE 1ST FMS EDITION

## A BIG THRUST FOR MOBILITY TRANSFORMATION

Providing a major boost to the mobility sector, Future Mobility Show (FMS) 2019 has catalysed the dialogue on the options that India needs to look into both from the technology aspect and the fuel choice



Enthusiasm among business visitors and aspirational youths has made FMS 2019 a big success.



N. Sivasailam, Special Secretary - Logistics, Department of Commerce, Ministry of Commerce and Industry, Govt, addressing audience



An international business delegation interacting at FMS.



Overseas visitors at the Future Mobility Show 2019.

The Future Mobility Show (FMS) 2019, organised by Confederation of Indian Industry (CII), has pioneered the transformation of India's mobility sector. Successfully emerging as a convergence point for all stakeholders to come together for the development of future-ready and environment-friendly mobility products, the show will be remembered as a milestone in India's journey towards a sustainable future.

Focused on five national objectives of Responsible Mobility, Energy Security, Environment, Urban Mobility and Make in India, the knowledge sessions organised concurrently with FMS 2019 on February 26 and 27 saw industry leaders, key decision makers and technology providers from India and abroad deliberating on the way forward for the mobility sector in India.

The FMS Expo, the largest showcase of future mobility products and technol-

ogies in India, saw participation from as many as 75 exhibitors. The maiden edition of FMS also saw participation from countries like Japan, China, Thailand, USA, Germany and the UK to provide useful insights into the global trends in future mobility. As many as 15,000 visitors are expected to visit the show to experience the future mobility in action.

Set to reshape the future of mobility, FMS was conceptualised

to continue accelerating the deployment of new mobility solutions by taking into account Prime Minister Narendra Modi's 7Cs Vision on future mobility - Common, Connected, Convenient, Congestion-free, Charged, Clean, and Cutting-edge.

FMS 2019 also stressed on a technology agnostic approach towards finding futuristic mobility solutions that are relevant to diverse Indian conditions.

### RALLYING POINTS AT FMS 2019

The Future Mobility Show exhibition-cum-conference showcased the technological advances in transportation solutions and highlighted the interventions needed in the echo system to support sustainable modes of mobility.

Future Mobility Show 2019 aimed to not only look at a mobility transition for the country but also look at energy security for the nation. It will go a long way in achieving India's climate change commitments.

Among the key recommendations that CII has put forward include Market Creation and Adoption, Creating Scale for Make in India, Domestic Manufacturing of Vehicles Components and Batteries, Skill Development, etc.

FMS 2019 to ensure movement towards a sustainable means of transportation in India by advocating policies that can ensure reduction in cost and secured supplies of raw materials for local manufacturing of mobility solutions.

#### Supporting Organisations





# Conferences grab youth attention at FMS



## KEY TAKEAWAYS FROM FMS 2019

- By implementing cost-effective energy efficiency opportunities available today, transport energy use could remain flat between now and 2040, despite activity levels doubling.
- The Government of India through its various schemes has shown a great will to transform the mobility landscape of India by adopting new policies like the National Policy on Biofuels, National Electric Mobility Programme.
- An important aspect of EV adoption is technology adoption. At present, this affects the public transportation apps and aggregators. CII to support integrated approach to technology adoption.
- It is important for CII and its membership to look at various mobility options that are sustainable and in line with India's Climate change commitments.
- The way that people and goods travel is changing, driven by a series of converging technological and social trends: the rapid growth of car-sharing and ridesharing; the increasing viability of electric and alternative powertrains; new, lightweight materials; and the growth of connected and, ultimately, autonomous vehicles.
- The capability to manage and share data will be the key differentiators in the future of mobility, and managing the data from the first mile to the last mile will provide incredible insight and power. This capability will be the most significant challenge to overcome.
- Karnataka's policy framework for electric and sustainable mobility in the fields of electric vehicles, charging infrastructure and battery technology would be a game changer in the Industry and will be a model for other states.
- Karnataka's phased EV manufacturing strategy would aim at strengthening the local manufacturing and supply base and developing the local EV supply chain with emphasis on electric drive technologies.
- India with a per capita income of \$2,134, sells over 3 million cars annually and has over 50 motor vehicles per 1,000 people. India has the potential to create a new mobility ecosystem that is smart, shared and connected which will have a significant impact domestically and globally.
- To ensure the credibility, reliability and robustness of the work force in the future, the mobility industry and government need to work together to making skill development aspirational and integrated with academic pathways.
- To ensure that India's remains at the cusp of innovation in the mobility sector, it requires its work force to be continuously be upgraded on the latest skills for higher value additions.
- The mobility sector today contributes more than 7 percent to the country's GDP. It is half of the manufacturing sector which supports jobs for 32 million people and has the potential for creating even more jobs in the future.
- Through the adoption of vehicles with cleaner/alternative fuel technologies, India can save 64 percent of energy demand from the road sector for passenger mobility and 37 percent of carbon emissions in 2030.

## Evolution of Green Mobility into Future Mobility

The momentum created by the Future Mobility show needs to be carried forward by making it a structured platform, says CV Raman, Chairman of CII Steering Committee on FMS 2019



The Future Mobility Show's evolution stems from the realisation that India should be focusing on all aspects of mobility. So, FMS was conceived as an exhibition on innovations from all mobility stakeholders and knowledge sessions that would cover not just one technology or one aspect of mobility but all aspects of mobility ranging from policy issues to manufacturing, said CV Raman, Chairman of CII Steering Committee on FMS 2019.

"The FMS has been structured in such a way that it acts as a convergence point for ideas and thoughts," he said. Today, a lot of disruptions are happening in the startup space, so the FMS 2019 had a special focus on putting on display the innovations coming from

them, Raman added.

The Chairman of CII Steering Committee on FMS 2019 also said that the momentum created by this maiden show needs to be carried forward by making it a structured platform and try to find ways to organise it in a better way. "The mobility space is going to be continuously evolved and many new solutions will come in the future and we need a platform where we can continue the discussion."

The three recommendations he made included a technology agnostic approach towards future mobility, putting in place policies that provide an enabling environment to make things happen quickly and try to find new ways to for skill development needed for future mobility.

**The FMS has been structured in such a way that it acts as a convergence point for ideas and thoughts**



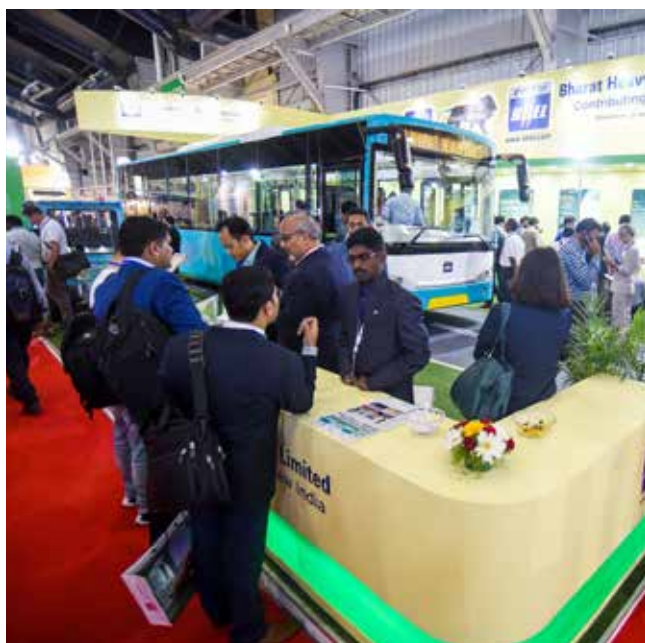
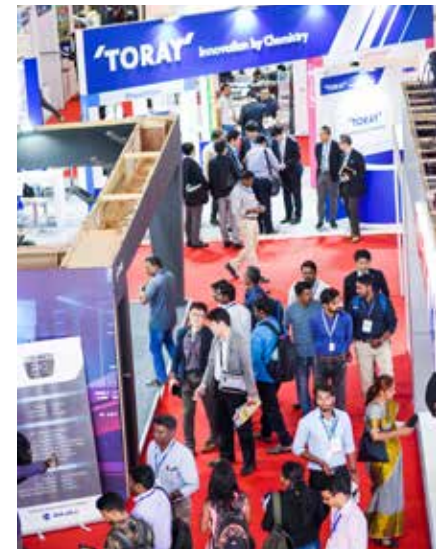


# The Future on Display

The FMS Expo, which is attracting a huge number of visitors, focuses on technological advancements and innovations in alternate solutions to the conventional fuels to help achieve zero emission mobility for India



**Cutting-edge mobility products and technologies from top mobility industry leaders, startups and technology providers are reflective of latest trends in connectivity and mobility solutions. The deployment of these innovations are set to transform the way people and goods are moved in future**





## IDEAS FOR TRANSFORMATION

Logistics sector is concerned with cost reducing technologies. It is very important to reduce the cost than finding an alternative.

**N. Sivasailam,**  
Special Secretary — Logistics,  
Department of Commerce,  
Ministry of Commerce and  
Industry,  
Government of India.

The transports sector is transforming across India and in Karnataka subsidies and regulations are at discussion stage. There should be some kind of exemption to be given to EVs.

**B Basavaraju,**  
Principal Secretary,  
Transport, Government of  
Karnataka

Mobility in the future is going to become a service — it could be shared, personal, public, leasing, etc. We need to look at it from the perspective of making it convenient, safer and affordable.

**CV Raman,**  
Senior Executive Director  
(Engg and R & D), Maruti  
Suzuki India Ltd

Mobility in today's time has become a digital service. Future is indeed going to be based on shared mobility. We should be aiming to help further expand the shared mobility to decongest the roads.

**Sujith Nair,**  
Co-founder and CEO, Open  
Mobility Foundation

National Automotive Policy released last year is going in the right direction. We need to cut down our electricity transmission losses. We need to shift to renewable energy sources.

**Professor RV Ravikrishna,**  
Professor- Department of  
Mechanical Engineering, IISc

If gas as a fuel is available, industries will grow, and clean fuel will be available. Indraprastha Gas has been working in the direction of promoting natural gas and creating clean energy.

**PK Pandey,**  
Vice President — Marketing,  
Indraprastha Gas Limited

Future of transportation fuel in India is an incredibly relevant topic in this age due to the climate change. Any mobility transition must concentrate on consumer behaviour.

**Nitin Prasad,**  
Chairman, CII National  
Committee on Hydrocarbons  
and Chairman,  
S Group of Companies,

CII has come out with a committee on bioenergy to support the GOI's initiative on the policy of biofuels. The future for cleaner transport is bio refining.

**GS Krishnan,**  
CII Task Force on Bioenergy  
and Managing Director,  
Novozymes South Asia  
Private Limited

We need to increase shared mobility, connected infrastructure, and last mile connectivity. Even when there is public transport, we don't have last mile connectivity and if we create the last mile connectivity that would be the most affordable and sustainable solution to mobility issues in urban areas.

**Naveen Gautam,**  
Managing Director,  
Hella India

If we imagine manufacturing, transportation and logistics all together, it is only then we can reduce congestion and imagine mobility in a sustainable way in urban areas. We have to address the nature of the problem. We need more than technology to tackle the challenges as the majority of the situations are socio-political problems.

**Ashwin Mahesh,**  
CO founder, Lithium Urban Technologies Private Limited

## 'Be Committed to Movement'



It is good to see government participating at FMS 2019 in such a good way. Sustainable mobility is quite a complex subject and sometimes it is very difficult to see it from a very rational point of view, said Hormazd Sorabjee, Editor, Autocar India while expressing his views on the show.

This show has brought together multiple stakeholders on one platform. The recommendations I would like to make are: Be committed to this movement, giving genuine benefits and incentives and creating infrastructure for the growth of mobility; the automobile industry should not be viewed as a luxury industry as lot of livelihoods depend on it.

## Innovations for Mobility Next

Future Mobility Show 2019 has served as a unique platform for many established companies and startups to showcase their innovations

### Predictive Pedestrian Protection System

The predictive pedestrian protection system is a technology from Bosch which can prevent collisions. Based on camera and radar data, the braking system is triggered in the event of an emergency and can prevent collisions, or, at the very least, considerably mitigate the impact. This technology can significantly reduce the injury risk for pedestrians.

### Wireless Charging System

The wireless charging system from the Japanese-based company Shindengen is a new technology which charges the EV without plugging in. One can charge the vehicle just by parking over a wireless charging pad. It provides much safer and convenient charging solutions to EV users as compared to the conventional system with charging cable and connectors.

### Agnikul

Incubated at IIT-Madras incubation cell, Agnikul manufactures

orbital launch vehicles for smaller payloads. They design and build launch vehicles capable of carrying around 100 kg to lower earth orbits, thereby offering smaller satellites and other operators a more viable option. They use additive manufacturing techniques including 3D printing tech for the engine.

### Surge

Surge is a country's first geared electric motorcycle. It can run up to 100 km on a single battery charge that can be achieved in a matter of an hour. Surge is a feature-rich EV with over 40 new innovations made specifically for Indian roads.

### RE Racing Cars

Promoting the innovations by youth, ISIE is showcasing innovative racing cars built by college students. The cars are either powered by electricity or solar energy, or both. The RVCE College of Engineering of Bangalore is showcasing ARKA, a racing car powered by solar energy.

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