

FLOWSPARK



Beyond Boundaries: Co-creating
Future Automotive Value Chain

17 – 22 January 2025

- Bharat Mandapam, Pragati Maidan, New Delhi
- Yashobhoomi, Dwarka, Delhi
- India Expo Center & Mart, Greater Noida

The leading global mobility show in India, uniting the entire mobility value chain under one umbrella

The road to 2025

Get ready for Bharat Mobility Global Expo 2025! Explore the exciting lineup of exhibitors, conferences, and pavilions showcasing the latest advancements in sustainable mobility, localization, and urban air mobility.

In this issue

Policies reshaping India's mobility landscape

The future is here: EVs, SDVs, and Urban Air Mobility

Highlights from Bharat Mobility Global Expo 2024



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Government of India

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Some key government policies and their impact

The Government of India has launched several initiatives to promote cutting-edge mobility products and solutions. Here are some of them

PM E-DRIVE Scheme (Ministry of Heavy Industries)

Launched on 29 September 2024, with an outlay of ₹10,900 crore over two years, the PM E-DRIVE scheme promotes electric mobility by offering demand incentives for electric vehicles (EVs), establishing charging infrastructure, and upgrading testing agencies.

Highlights: This scheme targets the adoption of over 24.79 lakh electric two-wheelers, 3.16 lakh three-wheelers, and 14,028 e-buses by 2026. It also includes significant investments in developing charging infrastructure and upgrading testing facilities.

Benefits

- Reduces the upfront cost of EVs for individual and commercial buyers.
- Encourages rapid development of EV charging infrastructure.
- Improves safety and quality standards via



upgraded testing facilities.

Beneficiaries

- Buyers of electric two-wheelers (e-2Ws) and three-wheelers (e-3Ws).
- Public transport operators adopting electric buses (e-buses).
- EV manufacturers and ecosystem developers.

PM e-Bus Sewa-Payment Security Mechanism (Ministry of Heavy Industries)

Introduced on 28 October 2024 with an allocated budget of ₹3,435.33 crore, this scheme ensures the deployment of over 38,000 e-buses through secure payment mechanisms to reduce operator risks.

Benefits

- Ensures timely payments to operators via Public Transport Authorities (PTAs).
- Reduces financial risks for private operators, encouraging investment.
- Promotes cleaner, cost-effective, and efficient public transport options.

Scheme to Promote Manufacturing of Electric Passenger Cars in India (Ministry of Heavy Industries)

Launched on 15 March 2024, this initiative incentivizes global manufacturers to invest in India by offering reduced customs duty on imported electric cars (CIF value ≥ USD 35,000) for five years, provided local production commitments are met.

Benefits

- Attracts global EV manufacturers to establish production facilities in India.
- Promotes advanced battery electric vehicle (BEV) adoption in India.
- Boosts local manufacturing and technological advancement under the 'Make in India' initiative.

● Beneficiaries

- Global and domestic EV manufacturers.
- Consumers accessing advanced EVs.

PLI Scheme for Automobile and Auto Components (Ministry of Heavy Industries)

With a \$3.13 billion allocation (FY24–FY28), this scheme supports domestic manufacturing of advanced automotive technology products and aims to build a robust supply chain.

Benefits and beneficiaries

- Creates economies of scale for advanced automotive technologies.
- Promotes higher value-added production and export capabilities.
- Supports sustainable growth in the auto industry.
- Automobile and auto component makers in India have already invested ~₹13,000 crore (~USD 1.6 Bn) under the PLI scheme
- Investments and approvals under PLI scheme



(select): Mahindra & Mahindra, Tata Motors, Bajaj Auto, Ola Electric, Toyota Kirloskar Auto Parts, TVS Motor Company, Sona BLW Precision Forgings, Delphi TVS Technologies.

PLI Scheme for Advanced Chemistry Cells (Ministry of Heavy Industries)

A \$2.18 billion program (FY25–FY29) focused on setting up giga-scale battery and ACC manufacturing facilities, with an emphasis on indigenous production.

Benefits

- Reduces dependency on imports for advanced battery components.
- Bolsters the EV ecosystem with high-performance, affordable battery solutions.
- Accelerates India's transition to sustainable mobility.

Beneficiaries

- Advanced battery and component manufacturers.
- EV manufacturers and supply chain investors.
- Consumers benefiting from improved EV performance and affordability.

National Policy on Electronics (Ministry of Electronics and Information Technology)

Aims to establish India as a global hub for Electronics System Design and Manufacturing (ESDM) with investments in connected vehicle and emerging automotive technologies.

Benefits

- Encourages domestic manufacturing and innovation.
- Reduces reliance on imports, supporting India's self-reliance goals.
- Promotes the integration of advanced automotive technologies.

Beneficiaries

- Electronics manufacturers and startups.
- Automotive OEMs focusing on connected vehicles.
- Consumers benefiting from next-gen automotive technologies.

The Government's focus is on innovations across software-defined vehicles, electric and hybrid technologies, autonomous systems, urban and connected mobility

INTERESTING READS



Software-Defined Vehicles (SDVs)

India is witnessing a rapid shift towards Software-Defined Vehicles (SDVs), transforming the automotive ecosystem with advancements in electrification, autonomous driving, and connectivity. Sreeja KS, Senior Architect at Tata Elxsi, explains how SDVs decouple hardware from software, enabling seamless updates and cloud integration for enhanced vehicle performance and customer experience. Tata Elxsi supports OEMs in reducing ECUs and wiring weight, while leveraging AI-ML for predictive analytics in EVs, such as battery health and range estimation. Despite challenges like cloud policy ambiguities and latency concerns, the phased adoption of SDVs is gaining momentum, with passenger vehicles leading the way.

<https://www.tataelxsi.com/news-and-events/software-defined-vehicle-adoption-in-india-growing-fast>



Autonomous Vehicle Technology

ISiliconAuto, a Foxconn-backed automotive technology company, has announced a new research and development (R&D) centre in Bengaluru, India. This centre will focus on semiconductor product design and system-on-chip (SoC) development for the automotive sector, highlighting India's growing role in the global automotive technology landscape. A joint venture between Stellantis NV and Foxconn, SiliconAuto aims to innovate in electric vehicles (EVs), autonomous driving, and connected car technologies.

<https://ackodrive.com/news/foxconn-backed-silicon-auto-establishes-r-and-d-hub-in-india-for-ev-and-autonomous-tech/>

ams OSRAM has introduced the SPL S8L91A_3 A01, the world's first AEC-Q102 qualified 8-channel 915nm SMT pulsed laser designed to enhance long-range LiDAR systems for autonomous vehicles. Offering 1000W peak optical power with 30% efficiency, this innovation simplifies system design, reduces manufacturing complexity, and boosts reliability. The laser's integrated wavelength stabilization technology ensures consistent performance across temperature variations, making it ideal for passenger cars, trucks, and Robo Taxis. Launching in spring 2025, it is also suited for industrial applications like robotics and smart cities.

<https://ams-osram.com/news/press-releases/new-era-for-lidar-applications>

Connected Mobility Technology

Continental is rapidly scaling its R&D and manufacturing for connected technologies such as body electronics, 4G/5G technologies, and GPS systems to meet the growing demand in the region. Continental is keenly working with the local OEMs to provide tailor-made solutions. As the volume of production will significantly rise, this will also lead to a surge in the company's share of exports to other regions such as European, East Asian, and ASEAN markets.

<https://auto.economictimes.indiatimes.com/news/industry/continental-ramps-up-localization-of-connected-mobility-solutions-in-india/105212307>

Digital Twins for Vehicle Simulation

Digital Twin technology is transforming the automotive industry by creating virtual replicas of physical assets, enabling real-time optimisation and innovation across the product lifecycle. According to a Digital Twin Global Survey, 76% of automotive organisations leverage this technology to enhance product design, manufacturing, and customer engagement. In product development, digital twins streamline data integration, improve simulation accuracy, and facilitate collaboration. They predict machine failures in manufacturing, reducing downtime costs and enabling real-time workforce training.

<https://community.nasscom.in/communities/digital-transformation/digital-twin-automobile-industry>



Steel

JSW Steel and POSCO: In October 2024, JSW Steel signed a preliminary agreement with South Korea's POSCO to set up an integrated steel plant with an initial capacity of 5 million metric tons per year. This joint venture also explores collaboration in renewable energy and battery materials for electric vehicles, aiming to support the energy needs of the proposed steel plant and contribute to building an EV ecosystem in India.

<https://www.jsw.in/groups/jsw-group-korea%E2%80%99s-posco-group-sign-landmark-mou-develop-integrated-steel-plant-india>

Tata Steel has proactively developed specialized products and steel grades for the automotive segment, including setting up a Continuous Galvanising line in Jamshedpur to cater to automotive manufacturers.

<https://www.tatasteel.com/products-solutions/india/segments/automotive/>

Sustainable Materials in Mobility

Hyundai Mobis reveals three-pronged strategy to develop sustainable recyclable materials. Hyundai Mobis' sustainable materials involve recycling resources or utilizing bio-based materials. Recycled materials are primarily used in plastic components. Hyundai Mobis produces regenerated materials by recovering recyclable parts from household waste or end-of-life vehicles, processing them, and adding additives.

<https://www.autocarpro.in/news-international/hyundai-mobis-reveals-three-pronged-strategy-to-develop-sustainable-recyclable-materials-122358>

Urban Air Mobility

Eve Air Mobility and Hunch Mobility are collaborating to bring the first eVTOL commuter flights to India, with Bangalore as the launch city. The companies will work with officials, infrastructure, energy and technology providers to ensure the appropriate infrastructure is in place to introduce eVTOL flights.

<https://aerospaceglobalnews.com/news/eve-and-hunch-mobility-to-launch-evtol-flights-in-bangalore/>

Recap of Bharat Mobility Global Expo 2024

Last year's event highlighted India's capability to lead the mobility revolution

Exhibitors

- **SIAM** – 28 leading vehicle OEMs (including EV players)
- **ACMA** – 600+ component manufacturers
- **IESA** – 50+ battery & storage companies
- **ATMA** – 20+ top tyre makers
- **ICEMA** – 11 construction equipment manufacturers
- **NASSCOM** – 25+ leading tech & start-up companies
- **ISA** – Five leading steel manufacturers
- **Invest India** – 10 states, 15 startups
- **EEPC India** – 70+ from EV and related auto segments

Highlights of the 2024 show

The show featured new-age tyres and smart tyres with built-in sensors and those made from sustainable raw materials.

Technology companies showcased the pivotal role of technology in shaping the future of mobility.

Leading **steel companies** showcased their contributions towards sustainability and decarbonization in the automotive industry.

Battery and Storage solutions displayed advanced batteries

and storage solutions.

In **Construction Equipment**, zero-emission and electric vehicle (EV) construction equipment was shown.

SIAM's Surakshit Safar Pavilion focussed on secure and reliable transportation.

The pavilion on **De-carbonization & Circular Economy** highlighted efforts towards sustainability and circular economy principles.

Indian States also put up pavilions at Bharat Mobility Global Expo 2024.

What some exhibitors brought to the 2024 expo

AUTOMOBILES

TVS Motor, the Chennai-based two- and three-wheeler OEM, showcased its latest products and technologies for sustainable mobility.

Mahindra & Mahindra, one of India's leading automotive companies, presented an array of globally acclaimed vehicles.

Tata Motors showed its 'Future of Mobility' portfolio with 18 future-ready commercial, passenger and electric vehicles

Maruti Suzuki, one of India's leading automotive companies, presented Maruti Wagon R Flex Fuel and the eVX

concept.

Toyota Kirloskar Motor displayed its range of advanced green technology products, and its localization initiatives.

TYRES

JK Tyre's 'Innovation For The Future' pavilion displayed 'UX Green' tyres made of 80% sustainable materials along with a selection of EV tyres.

TECHNOLOGY AND INNOVATION

Tata Elxsi spotlighted future mobility solutions and services such as SDVs, Connected Vehicle Platform, Electrification, Autonomous Driving, Customer

Experience, and Automotive Testing.

TCS presented disruptive solutions for autonomous driving, electrification, digital cockpits, and connected vehicles.

Denso had Advanced Driver Assist Systems (ADAS), electrification tech, innovations in QR-based technology and Data-Driven tech powered by Artificial Intelligence.

JCB India had the JCB Backhoe Loader, Asia's first construction machine to run on hydrogen.

Action Construction showed India's fully electric mobile crane with breakthrough technology and zero emissions.

Concurrent shows at Bharat Mobility Global Expo 2025

Auto Expo - The Motor Show 2025



India International Tyre Show 2025



Bharat Battery Show



Mobility Tech Pavilion



India Cycle Show 2025



Steel Pavilion



Urban Mobility & Infrastructure Show



Bharat Construction Equipment Expo



Auto Expo - The Components Show 2025



Partner organisations



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Relive the experience and get ready for 2025.
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India's mobility landscape

For more details, visit us at



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