NITI Aayog

e-FAST India
Electric Freight Accelerator for Sustainable Transport

e-FAST Summit 2025

3rd Anniversary

HIGHLIGHTS

OVERVIEW

The e-FAST India Summit 2025, held on 3rd September at India Habitat Centre, New Delhi, marked the third anniversary of the e-FAST India platform. The event signified a major milestone in India's electric freight journey, convening senior government officials, leading industry players, and civil society partners to showcase collective progress and deepen partnerships. With participation from 119 knowledge and industry partners, e-FAST India continues to catalyze actionable collaboration, transforming India's approach to zero-emission freight—from knowledge exchange to co-creation and measurable results.

The Summit featured keynote addresses, thematic sessions, and a spotlight on operational pilots, policy innovations, financing strategies, and corridor technologies for zero-emission trucking. Participants engaged in discussions on industry-led initiatives, scaling pilots, strengthening institutional frameworks, and addressing real-world challenges in grid integration, financing, and digital infrastructure. The event also celebrated sectoral trailblazers driving the deployment of electric medium- and heavy-duty vehicles (e-MHDVs) through an awards ceremony, further anchoring the spirit of collaboration and market transformation.

KEY TAKEAWAYS

- **From Pilots to Scaled Deployment:** India's freight electrification has transitioned from exploratory pilots to actionable scaling, marked by growing vehicle deployments, operational learnings, and commitments for electric trucks—signaling a maturing market ready for broader adoption and impact.
- **Integrated Ecosystem Approach:** Success hinges on coordinated efforts across stakeholders—government bodies, OEMs, financiers, logistics providers, and utilities—working together on infrastructure development, technology standards, financing models, and data-driven corridor planning to ensure sustainable growth.
- **Financing and Policy as Catalysts:** Overcoming financing barriers through innovative mechanisms, blended capital, long-term contracts, and government subsidies (such as the PM E-Drive) is critical, supported by enabling policies such as charging infrastructure scale-up, tariff reforms, and interim incentives for fleet operators.
- **Sectoral Focus and Technology Innovation:** Customized solutions tailored to key sectors such as cement, steel, ports, and mining, combined with interoperable charging technologies, battery swapping models, and digital platform integrations, are driving

real-world viability and operational efficiencies for medium and heavy-duty electric trucks.

- **Accelerate Deployment on Priority Corridors:** Fast-track electrification across identified high-potential freight corridors by enhancing grid readiness, scaling charging infrastructure, and targeting the deployment of electric trucks, especially in sectors such as cement, ports, and mining.

ACTION ITEMS

- **Enhance Financing and Contractual Frameworks:** Develop and implement innovative financing models, including blended capital, risk mitigation instruments, and long-term contracts (5-10 years) to de-risk investments and improve fleet economics for electric trucks.
- **Strengthen Ecosystem Collaboration and Standards:** Promote deeper integration among government, OEMs, financiers, utilities, and fleet operators—focusing on interoperable technologies (charging, batteries), standardized data-sharing, and coordinated policy support for seamless market growth.
- **Implement Supportive Policies and Capacity Building:** Introduce time-bound incentives such as toll waivers, entry relaxations, and city-level e-mobility hubs to nurture initial market growth, alongside training programs for drivers and managers to optimize operational efficiency and scale adoption.

OPENING PLENARY

The opening session featured addresses from government leaders and industry executives, including representatives from the Ministry of Heavy Industries (MHI), NITI Aayog, SIAM, SFC, and WRI India. Speakers highlighted e-FAST's rapid expansion—from four initial partners to over 100—and India's progress in towards electrifying trucks, cutting emissions, and reducing fuel imports. Key priorities identified were financing, supply chain resilience, policy clarity, and transforming high-emission freight corridors, signaling a shift from convening stakeholder dialogues to contractual commitments and concrete actions.

Shri Sudhendu Sinha, *Advisor (E-Mobility), NITI Aayog highlighted that from just four knowledge partners, 50 trucks, and a modest beginning in 2022, e-FAST has grown into a powerful industry movement with over 100 partners today. Despite early hurdles, respected leading OEMs chose not to wait and collaborating from the start and building trust and momentum that has steadily snowballed into a much stronger movement.*

Shri Dr. Hanif Qureshi, *IPS, Additional Secretary, Ministry of Heavy Industries, stressed the importance of aligning diverse stakeholders under the PM's net-zero vision. He highlighted challenges such as financing, domestic manufacturing, supply chain vulnerabilities, and the viability of N3 trucks. Yet, with indigenization, strong OEM engage- ment, and PLI-driven investment, Dr. Qureshi emphasized that the future of electric freight is bright.*

Opening Plenary: *From left to right: Felipe Ramirez Buitrago, Director Urban Mobility WRI; Christoph Wolff, CEO SFC; Shri Sudhendu Sinha, Advisor (E-Mobility) NITI Aayog; Shri Dr. Hanif Qureshi (IPS), Additional Secretary Ministry of Heavy Industries; Prashant Banerjee, Chief Executive Director, SIAM; and Madhav Pai, CEO WRI India.*

Prashant Banerjee, *Chief Executive Director, SIAM, framed electrification as a "double engine" effort of NITI Aayog and MHI. Despite India's complexity, strong policy instruments such as the PM E-Drive, Auto PLI, and consultative governance have created clarity and stability. With OEMs ready, corridors identified, and customer demand growing, he affirmed that freight electrification is no longer a distant goal but a present reality.*

Madhav Pai, CEO, WRI India, *emphasized that with rising demand and coordination needs, financing remains the key to scaling India's EV transition. He urged a shift from dialogue to actionable contracting, focused on clear standards, blended capital, and investor attraction—while outlining a concrete work plan for the next 20–25 months to accelerate EV adoption.*

Christoff Wolff, *CEO, Smart Freight Centre, noted that the recent NITI Aayog report is a milestone, providing both clarity and a call to action. With PM e-Drive subsidies, India can begin shifting from incentives to mandates. Data-driven approaches already demonstrate viable use cases in ports, cement, steel, and warehouses, with 20–30 percent deployment achievable.*

Felipe Buitrago, *Director, Urban Mobility, World Resources Institute, emphasized e-FAST's global impact, noting that Brazil has launched its own platform. Since freight accounts for 40–50 percent of emissions, both large industries and small operators must transition. He stressed that infrastructure, logistics, and holistic planning are critical, and that India's leadership is setting an example worldwide.*

LAUNCHES

e-FAST handbook launch: *The handbook encapsulates the entire e-FAST India journey so far, from early pilot projects that have been implemented to relevant knowledge products curated and launched over the past three years.*

Fi-ZET tool launch: *The "Financial Impact Assessment for Zero Emission Trucks (Fi-ZET)" tool, developed by WRI India, assesses the financial implications for truck owners transitioning to a battery-electric truck. Designed primarily for fleet operators and logistics service providers, Fi-ZET enables detailed analysis of capital and, operating costs, as well as revenue, while offering insights into earnings and the long-term financial and commercial viability of e-trucks.*

Data partnership report launch: *The report "Data Partnership for Indian Road Freight" introduces a program to accelerate zero-emission truck deployment in India through data-driven collaboration, corridor-level strategies, and actionable policy pathways. The publication highlights how real-world freight data, demand aggregation, and stakeholder alignment can unlock scalable electrification across India's freight corridors.*

SESSION 1:
OPERATIONAL INSIGHTS AND BUSINESS MODELS

From left to right: *Prof. Ashbir Singh, Director, i-Board Mobility; Shri Dhiraj Srivastava, Chief Engineer, Ministry of Power; Prasad Phadke, Head of Strategy – Commercial Vehicles, Tata Motors; Pramod Sharma, COO HEV Business, Sun Mobility; Achint Kaul, VP – Mobility Transformation & Strategy, Safexpress; Saudamini Zutshi, Business Development and Partnerships Manager, Purpose (Moderator); Priti Shukla, Programme Manager – Electric Mobility, Shakti Sustainable Energy Foundation (Session Host)*

OVERVIEW

The session provided a deep dive into operational realities and business models for electric medium- and heavy-duty vehicles in freight. Industry leaders discussed key learnings from on-ground pilots, covering utilization, reliability, financing solutions, and the broader ecosystem needed for successful e-MHDV adoption. The conversation underscored that electrification is no longer experimental, it is actively underway, with well-tested approaches and collaborative efforts now enabling the transition from isolated pilots to broader deployment in India's freight sector.

KEY TAKEAWAYS

- **Pilots informing business models:** Real-world freight pilots confirm that e-MHDV adoption is taking place across sectors, with key learnings around duty cycles, charging, financing, and operational scaling now guiding robust business models.
- **Key factors for securing viability:** Minimum daily utilization, high product reliability, customer-centric ecosystem solutions, and innovative financing mechanisms are essential to building operator confidence and long-term commitment.
- **Risk mitigation for scalable adoption:** Risk mitigation through strong asset utilization, contractual frameworks, and enabling policy is critical to drive for e-truck adoption at scale, moving beyond pilots to mainstream logistics.

SESSION 2:
SMART CORRIDORS & TECHNOLOGIES FOR ZETs

From left to right: *Shirish Mahendru, Transport & Infrastructure Advisor, GIZ (Moderator); Shri Sunil K Sharma, General Manager Sustainability & Cleantech, BYPL; Sanya Shahi, Senior Manager Programs and Partnerships, SFC; Lalit Chauhan, Country Head, Microgrid Labs India; Ashok Goyal, MD, BLR Logistiks; Abhijeet Sinha, Program Director National Highways for Electric Vehicles; and Deepal Shah, Country Head, BRUGG.*

OVERVIEW

The session focused on the strategic development of priority freight corridors for ZETs in India. Experts highlighted the significance of aligning infrastructure readiness, technology innovation, and financing to accelerate adoption along these corridors. Discussions emphasized the need for rapid deployment of high-power charging infrastructure, grid enhancements, and interoperable technological solutions, including battery swapping and advanced charging systems. Additionally, participants underscored the importance of data-driven corridor planning, cross-stakeholder coordination, and innovative financing mechanisms such as public-private partnerships and blended finance to de-risk investments and build a sustainable, scalable ecosystem.

KEY TAKEAWAYS

- **Strategic Corridor Development:** India has identified top priority corridors for ZET deployment, where predictable freight movements and grid-aligned readiness create favourable conditions to scale electric freight in sectors such as ports, cement, and logistics hubs.
- **Infrastructure and Technology Readiness:** Successful corridor electrification requires robust, durable, and interoperable high-power charging systems designed for Indian conditions, paired with strategic grid planning to prevent bottlenecks and ensure seamless operations.
- **Collaborative Planning and Financing:** Cross-sector engagement involving distribution companies (DISCOMs), charge point operators (CPOs), regulators, and financiers is essential for implementing innovative financing models, optimizing grid integration, and establishing scalable business models to support mass deployment of e-trucks.

SPOTLIGHT SESSION: E-MHDV PILOTS

From left to right: *Jaideep Saraswat, Associate Director – Clean Power, Electric Mobility & Emerging Technologies, Vasudha Foundation (Moderator); Akhil J, CEO and Co-Founder, Pulse Energy; Abhisht Gaurav, Sr. General Manager – BD & Sales, SG Green Logistics; Saurabh Palsania, Jt. President – Strategic Sourcing, Shree Cement; Rajeev Mehta, Senior President & CLO, Ultratech Cement; Siddesh Rai, Vice President – Strategy & Business Development, Transvolt Mobility; and Ajay Pratap Singh, Co-Founder & CEO, SwitchLabs.*

OVERVIEW

The spotlight session focused on operational insights and practical learnings from various pilots deploying e-trucks across sectors such as cement, ports, and logistics. Industry leaders presented evidence of the technical and financial viability of e-freight, highlighting crucial elements such as continuous 24/7 operations, dual-driver models, and optimized scheduling to maximize utilization. The panel emphasized the importance of tailoring solutions to sector-specific needs, with a particular focus on heavy-duty applications, and called for supportive policy measures, including incentive-backed mobility hubs and temporary regulatory relaxations to foster early market growth.

KEY TAKEAWAYS

- **Operational Viability Demonstrated:** Pilots in challenging environments showed e-trucks can achieve significantly higher utilization and cost competitiveness—up to 25% better efficiency and payback periods as short as 1.5 years in some cases—validating the commercial potential of e-freight.
- **Sector-Specific Solutions Required:** Diverse operating profiles across industries necessitate customized electric truck designs, robust after-sales support, and strategic partnerships to enable seamless adoption and scaling.
- **Policy and Ecosystem Support Essential:** Early-stage incentives such as toll waivers, city hubs, and long-term freight contracts (7-10 years) are vital to de-risk investments, build market confidence, and accelerate the transition from pilots to widespread deployment.

SESSION 3:
FINANCING & INSTITUTIONAL FRAMEWORKS

From left to right: *Arun Krishnan, Program Director – Climate Finance, WRI India (Moderator); PV Satyanarayana, CBO, IPL Tech Electric; Neha Agarwal, Founder, Lightroad; Rohan Ghalla, CFA, QFOP, Spectrum Impact; Sanjeev Kulkarni, CEO, Billion E Mobility; Christoph Wolff, CEO, SFC*

OVERVIEW

The sessionaddressed the critical challenge of unlocking robust financial solutions and institutional support for scaling ZET adoption in India. Speakers highlighted that despite strong policy support and technological readiness, financing remains a key barrier to large-scale deployment. The session emphasized innovative financial instruments such as blended and impact capital, pooled risk-sharing mechanisms, and concessional loans as essential tools for de-risk investments. Moreover, speakers underscored the role of lifecycle support by OEMs, long-term contracts, and digital aggregation platforms in building market confidence and ensuring operational profitability. Government interventions to catalyze financing ecosystems, including guarantees and interest-linked incentives, were also deemed vital for accelerating the transition.

KEY TAKEAWAYS

- **Urgency to Decarbonize Trucks:** Although trucks constitute only 4% of India's vehicle fleet, they account for over 70% of road transport CO_2 emissions, making e-freight a top priority for climate action and energy security.
- **Innovative Financing as the Bottleneck:** Scaling ZET adoption hinges on tailored financial solutions—including venture philanthropy for risk-taking, blended capital, bundled service models such as Battery as a Service (BaaS), and strong policy incentives—that address capital expenditure intensity, asset risk, and fragmented supply chains.
- **Ecosystem Collaboration and Confidence Building:** OEMs, financiers, fleet operators, and policymakers must collaborate to build trust through guaranteed uptime, advanced telematics, long-term freight contracts, and robust performance datasets, thereby creating a bankable and sustainable electric freight market.

AWARDS CEREMONY

The awards session honored outstanding champions across categories, including the Government of Maharashtra for being the first state to incentivize N2/N3 EVs; Ultratech Cement for the pilot with most e-MHDVs deployed in the cement industry; TransVolt Mobility, NECC and Ashok Leyland for deploying most e-MHDVs; ChargeZone for deploying most high-power chargers for e-MHDVs; Tata Motors and i-Board Mobility for the highest number of e-freight models; IPL Tech Electric for deploying most 55T e-trucks; and Sundaram Finance for being a pathbreaker in e-truck financing.

KEY RESOURCES

- **Event Highlights:** https://bit.ly/e-FASTSummit2025Highlights
- **Event Photos:** Photos

Launches

- **e-FAST handbook:** https://efastindia.org/e-fast-india-handbook
- **FiZET Tool:** https://bit.ly/FiZETWRIIndia
- **Data Partnership for India's Road Freight:** Data Partnership for Indian Road Freight | e-FAST India

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