



Freight Forward

Tracing e-FAST India's Growth Journey



This is e-FAST India

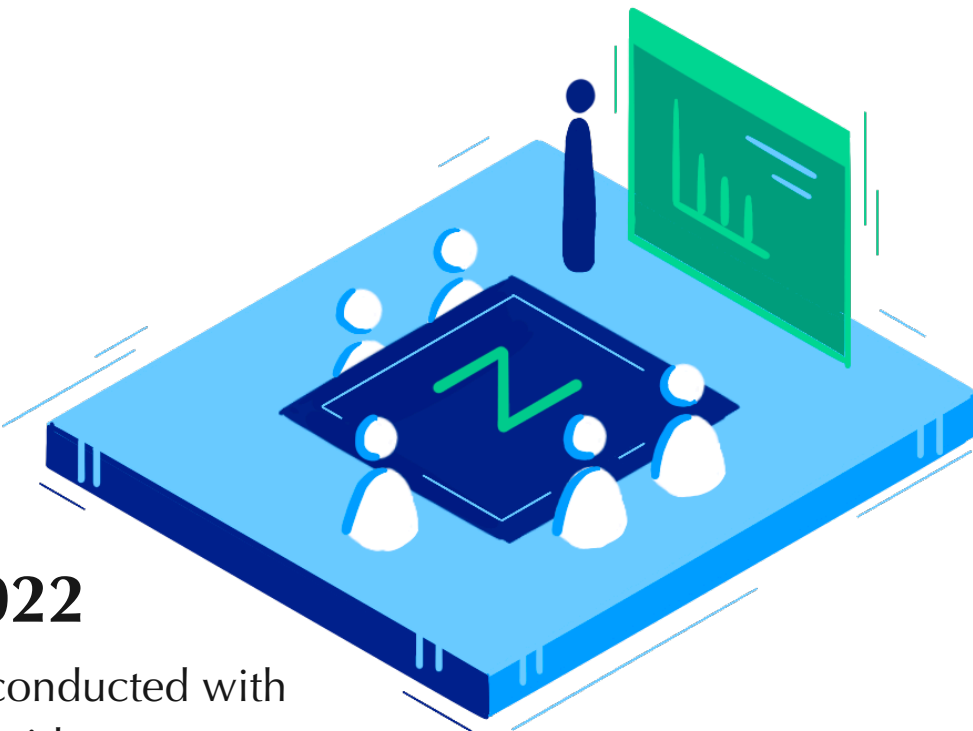
The Electric Freight Accelerator for Sustainable Transport (e-FAST India), led by NITI Aayog, is India's first platform to facilitate collaboration between government stakeholders and private sector partners to support freight electrification at scale.

Timeline

Milestones in the e-FAST India Journey

December 2022

First NITI Samvaad conducted with Logistics Service Providers



July 2023

16 companies signal demand for 7,750 e-freight vehicles by 2030



August 2024

The Bharat ZET Policy Advisory is launched by The Office of Principal Scientific Adviser to the Government of India

Now

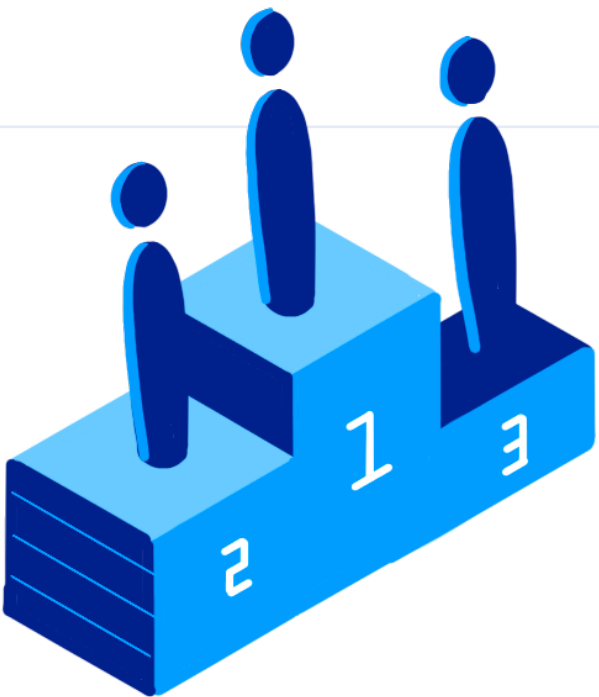
119 Total Partners

95 Industry Partners

24 Knowledge Partners

**e-FAST expands to Brasil
November 14, 2024**

Brazil launches its own electric freight platform inspired by e-FAST India



July 2024

e-FAST India launches the NITI Gearshift Challenge with IIM Bangalore, Smart Freight Centre, CALSTART, and WRI India

July 2023

e-FAST India represented at G20 and Clean Energy Ministerial, e-FAST website launched



September 2022

e-FAST India launches with 3 knowledge partners



Our Partners

This handbook shines light on the vital contributions of e-FAST India’s industry and knowledge partners in advancing zero-emission freight. From vehicle manufacturers and logistics providers to research institutions and policy think tanks, these partners are playing a key role in shaping India’s electric freight future.

Through pilot projects, innovative financing models, data-driven tools, and strategic collaborations, they are driving real-world progress. Their efforts reflect the strength of the e-FAST India ecosystem and a shared commitment to building a cleaner, more efficient freight system for the country.



e-FAST India Launch

07 September 2022

On September 7, NITI Aayog launched e-FAST India, the country's first national electric freight platform. The platform's first knowledge partners were WRI India, World Economic Forum, CALSTART, and RMI. e-FAST India's launch brought together key stakeholders across the freight ecosystem to drive collaboration, strengthen partnerships, and support innovative freight solutions.





De-Risking Financing for ZETs

Initiative by SFC

Partner since: 10 May 2023

In June 2024, Smart Freight Centre (SFC) partnered with SIDBI to launch a risk-sharing facility designed to make it easier for financing institutions to fund the purchase of electric trucks (e-trucks) at scale. This facility includes partial credit guarantees to reduce financial risks for small carriers, which handle over 75% of the sector's needs.

SFC has developed a data partnership program to guide e-truck adoption through informed decisions. This program works with shippers and logistics providers to:

- ◆ Identify feasible e-truck use cases.
- ◆ Conduct economic viability studies.
- ◆ Develop detailed, risk-mitigated business cases for e-truck pilots.

At the heart of the initiative is a simple but powerful insight: the economic viability of e-truck deployment depends on real-world use cases, shaped by factors such as vehicle duty cycles, load profiles, route conditions, and charging opportunities.

Piloting Zero-Emission Trucks at Ports

Initiative by RMI

Partner since: 6 April 2023

RMI, in partnership with the Indian Ports Association (IPA), launched the 'Piloting Zero Emission Trucks at Ports' initiative in April 2024 to accelerate the deployment of ZET pilots at major ports in India. The initiative attracted expressions of interest from over 20 organisations and has facilitated two ZET pilots in 2024 at Jawaharlal Nehru Port Authority in Navi Mumbai. Moving forward, the initiative aims to support multiple ZET pilot projects across other major ports.



Policy Advisory for ZET Acceleration

30 Policy Interventions identified

Partner since:

CoEZET, IIT Madras: 26 November 2024 | WRI India: 7 September 2022

The Technical Roadmap Version 2 (TRM V2), launched by the Office of the Principal Scientific Adviser to the Government of India in July 2024, outlines new technical projects to accelerate zero-emission truck (ZET) adoption. Supported by the Centre of Excellence for Zero Emission Trucking at IIT-Madras, it adds eight projects to those in the first version, with potential for future expansions, ensuring the necessary tools and technology for faster ZET deployment.

The Bharat Zero Emission Trucking (ZET) Policy Advisory, launched by the Principal Scientific Adviser's Office in August 2024, outlines a roadmap to accelerate the adoption of zero-emission trucks. The document, supported by the Centre of Excellence for Zero Emission Trucking (CoEZET), IIT-Madras and WRI India, includes 30 policy interventions across key ministries aimed at supporting India's decarbonization efforts.

Demand Signaling for e-Trucks

20 July 2023

At the 14th Clean Energy Ministerial in Goa on July 20, 2023, a landmark demand signal was issued with **16 industry partners committed to deploying 7,750 electric trucks by 2030**, marking a breakthrough in addressing the demand-supply gap for zero-emission freight. This announcement, made during the “e-FAST India: Driving Zero Freight Emissions” side event, underscored growing industry momentum

The event featured also three panel discussions on policy, regulatory, and financial frameworks, along with strategies to overcome adoption barriers through collaboration. It also included:

- ◆ Launch of the e-FAST website, a comprehensive resource on freight decarbonization.
- ◆ Showcase of the e-FAST India video – सुरक्षित समृद्ध भविष्य की ओर (Towards a Safe and Prosperous Future).





NITI संवाद (Samvaad)

NITI Samvaad is a dialogue series designed to explore key challenges in decarbonizing the road freight sector. Co-organized with WRI India, the series facilitated four in-depth sessions that brought together diverse stakeholders to examine pathways for zero-emission truck (ZET) adoption. By encouraging open dialogue and collaboration across sectors, NITI Samvaad has helped generate practical insights and build momentum toward a cleaner, more sustainable freight future.

ZETs Deployed at Cement Plants

Partner since:

UltraTech Cement: 13 July 2023 | IPLT Electric: 27 June 2023 | Transvolt: 5 July 2024

UltraTech Cement is deploying 100 electric trucks for long-haul operations between its Dhar and Dhule cement plants. This follows a successful pilot in January 2024, where five electric trucks completed the 400 km route, paving the way for fleet expansion to 500 electric trucks by June 2025. The trucks, manufactured by IPL Technology (a Murugappa Group company), are part of Transvolt's contract for the largest single-location deployment of 55T GVW (Prime Mover-Trailer) e-trucks. This makes UltraTech the first cement company in India to adopt electric trucks for large-scale, long-haul freight.





Electrifying NH-48

Initiative by C40 Cities

Partner since:
BillionE: 15 February, 2025 | **ChargeZone:** 27 January, 2024
Ashok Leyland: 11 June 2023 | **C40 Cities:** 7 Nov 2023

C40 Cities and The Climate Pledge, in collaboration with industry partners, established the international Laneshift Program to advance zero-emission freight solutions. In India, C40 and the Pledge launched a commercial electric truck demonstration project along the 350km Bengaluru-Chennai highway (NH-48). Some of the key stakeholders in this collaboration include Amazon, Ashok Leyland, BillionE and ChargeZone. Over six months, BillionE has operated 20 heavy-duty Ashok Leyland EV trucks (up to 55 tonnes) – gathering real-time fleet data to assess the feasibility of long-haul electric freight using ChargeZone charging infrastructure. The Laneshift-India demonstration project is the first step to establishing a network of connected electric vehicle freight highways in India.

BillionE currently operates over 60 heavy-duty EVs and plans to scale this to 250 vehicles by early 2026. It has signed a 150-crore agreement with Ashok Leyland to procure 180 e-trucks, including the AVTR 55T e-truck for regional and long-haul transport. With support from ChargeZone, BillionE group aims to cover 20,000 km of road network by the end of 2025 and expand to 50,000 km on Indian highways by 2026 to support the e-transition.

ChargeZone, India's largest EV charging network with 13,500 charging points, is investing in supercharging stations every 150-200 km along major highways. With over 1,600 EV charging stations deployed across more than 15,000km of Indian national highways (as of Mid 2023), the company aims to install 5,000 fast chargers by 2025. Four stations are already operational along the Bengaluru-Chennai route.

Enabling e-MHDPs Across the Logistics Ecosystem

Initiative by Transvolt Mobility

Transvolt Mobility is working to enable the decarbonization of heavy commercial transport in India, beginning with one of the country's most demanding sectors—cement logistics. Funded by the State Bank of India, Transvolt has deployed 70 e-trucks for UltraTech Cement, operating on a 210 km lead distance.

To ensure performance and scalability, Transvolt has conducted e-truck trials at over 18 strategic locations, across applications ranging from 3T to 55T payloads, covering: Cement, Steel & Manufacturing – Heavy-duty EV trials in core industrial zones. Chemicals & Agriculture Supply Chains – Assessing mid-duty EVs for sustainable freight.

Ports & Terminals – Electrifying container logistics and port operations.

Mining & High-Load Applications – Validating EV performance in tough terrain and high-stress environments.

3PL & Urban Logistics – Light-duty EV deployments for last-mile and regional delivery. With the vision of deploying over 8,000 battery-electric vehicles (BEVs) across India, Transvolt is building long-term ecosystems that bring together end-users, OEMs, financiers, and service partners. The company is supported by strategic financial partnerships, including equity investment from IFC, a member of the World Bank Group.





Advanced Vehicle Transformation Platform

Initiative by Ashok Leyland

Partner since: 11 June 2023

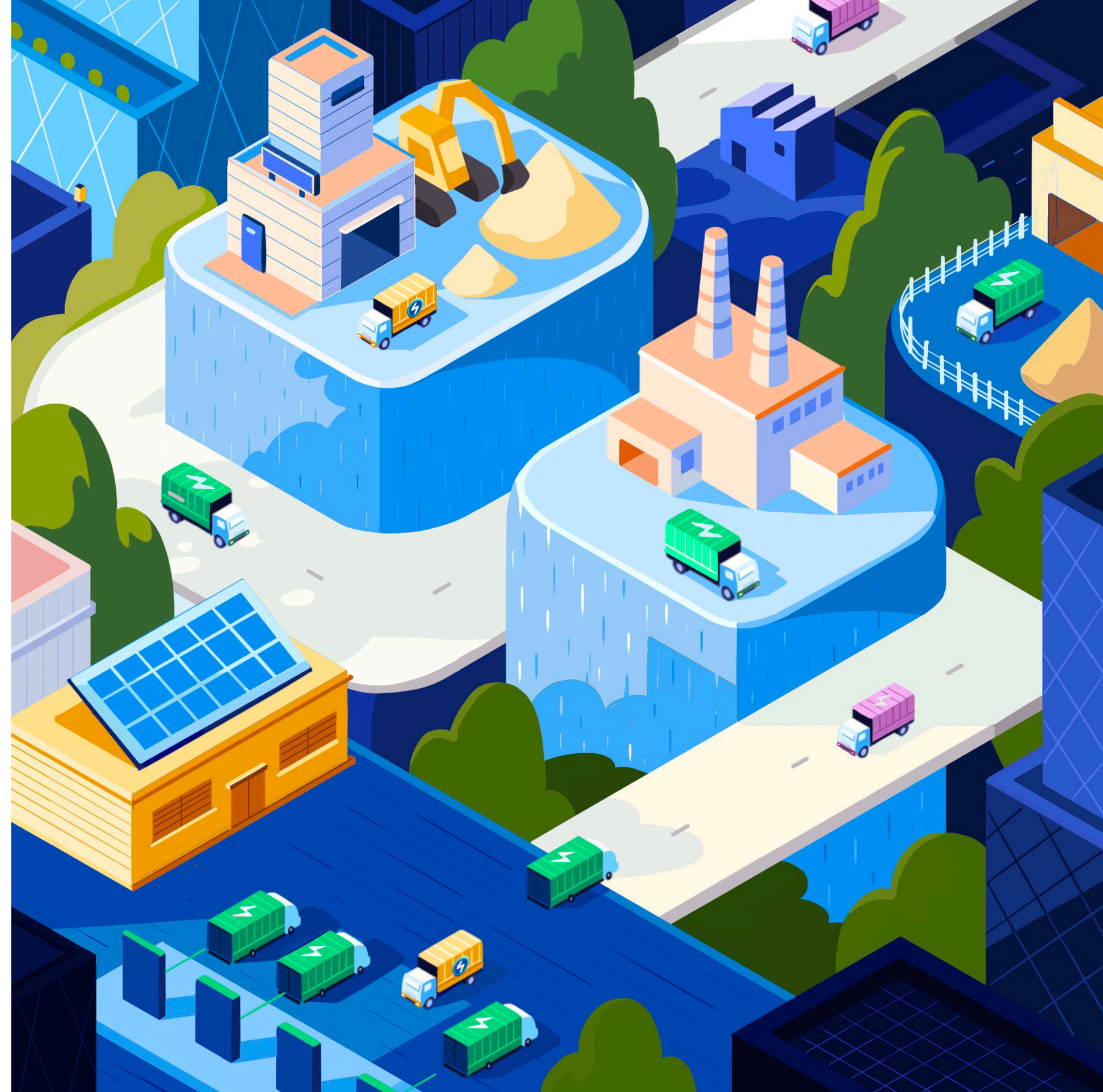
Ashok Leyland developed the AVTR (Advanced Vehicle Transformation Platform), a modular electric truck platform that offers fleet operators flexibility to build their trucks and choose their engine type, suspension, load body, etc. which in turn boosts operational efficiency for truck operators.

ZETs in Industrial Logistics: Cement, Mining, and Metal Sectors

Partner since:

JK Lakshmi Cement: 14 July 2023 | SwitchLabs: 25 January 2024

SwitchLabs and JK Lakshmi Cement are advancing heavy-duty freight electrification in India with the deployment of two electric trucks in the cement, mining, and metal logistics sectors. Launched in July 2024, the initiative features two IPLT Rhino 5536 trucks, each with a 40-ton payload capacity, operating on an 80 km route between Jaykaypuram, Sirohi (Rajasthan), and Balaram (Gujarat).





EV 100 initiative

Partner since:

Climate Group: 16 April 2023 | Dalmia Cement (Bharat) Limited (DCBL): 26 April 2023 JSW Steel

Climate Group

Climate Group's EV100+ initiative, launched in 2022, supports transition of medium- and heavy-duty vehicles (MHDVs) over 7.5 tonnes to zero-emission alternatives by 2040. This complements its EV100 initiative, which focuses on electrifying light-duty fleets and charging infrastructure by 2030. By engaging major corporations such as IKEA, Flipkart, Unilever, A.P. Moller – Maersk, JSW Steel, etc. these initiatives collectively aim to decarbonize road transport and address infrastructure challenges in India's freight and logistics sector.

JSW Steel

JSW Steel has committed to piloting 50 electric 40-tonne trucks by the end of FY2024, and plans to scale up to 500 e-trucks across India by 2040 to align with its EV100+ commitment. These e-trucks will replace the ICE vehicles currently in use within its steel plants and mines.

Dalmia Cement (Bharat) Limited

Dalmia Cement initiated its first e-truck pilot in December 2021, deploying high-capacity e-trucks to transport slag. As part of its long-term sustainability goals, the company is committed to the EP100, RE100, and EV100 initiatives to enhance energy efficiency, renewable energy adoption, and electric vehicle integration.

ZET Reports on Priority Corridors and Emissions Impact

Partner since:

CoEZET, IIT Madras: 26 November 2024 | pManifold: 21 October 2024 | RMI: 6 April 2023

The report "India's Priority Corridors for Zero-Emission Trucking" by the O/o the PSA identifies and outlines 10 priority highway corridors across India for the initial deployment of ZETs. With support from CoEZET, Rocky Mountain Institute (RMI), and pManifold, the report outlines a roadmap for the development of necessary charging and refueling infrastructure.

Another report on "ZET Adoption and Impact on Emissions and Energy" by the O/o the PSA, supported by CoEZET and pManifold provides a high-level view of the potential of ZETs in reducing emissions, the energy implications of large-scale ZET adoption and strategic pathways for ZET deployment in India.





Piloting Photovoltaics for ZET Efficiency

Initiative by Vasudha Foundation

Partner since: 28 January 2025

Vasudha Foundation, in partnership with a vehicle-integrated photovoltaics (VIPV) manufacturer, is set to launch a pilot project in Gujarat to evaluate the potential of VIPV technology in both battery-electric and internal combustion engine (ICE) trucks. Scheduled for deployment in the 2025–26 fiscal year, the pilot will explore ways to extend the daily range of electric trucks and improve fuel efficiency in ICE trucks. It will assess the feasibility and impact of VIPV integration across diverse driving conditions, with the goal of enhancing operational efficiency and advancing decarbonization in the freight transport sector.

Building a Zero Emission Freight Future with e-FAST India

In just 3 years, e-FAST India has convened 119 partners (95 from industry and 24 knowledge institutions) to accelerate the shift toward zero-emission freight.

Through shared knowledge, collaborative initiatives, and ecosystem-building, the platform has helped spotlight partner-led efforts, including demand signals for 7,750 electric trucks, finance innovations, and contributions to India's e-truck policy such as the Bharat ZET Policy Advisory. As the movement grows, e-FAST India remains committed to fostering cross-sectoral dialogue and action toward a cleaner, smarter, and more resilient freight future.

Join us in shaping the future of electric freight.

Write to us at connect@efastindia.org

