TCI
LEADERS IN LOGISTICS

Logistics Focus®

ULIP: Building India's Digital Backbone for Integrated Logistics

June 2026

Logistics Focus®

ULIP: Building India's Digital Backbone for Integrated Logistics

June 2026

This publication is a part of KNIT, a knowledge dissemination initiative of TCI Group. We believe in sharing insights and knowledge with the industry, to encourage best practice replication.

TABLE OF CONTENT

Foreword

"In the twenty-first century, connectivity is not merely about moving goods, it is about moving information with speed, accuracy and purpose."

As India charts its course toward becoming a global manufacturing powerhouse and a leading trade hub, the conversation around logistics is evolving. The focus is no longer confined to highways, ports, rail corridors and warehouses. Equally transformative is the emergence of a digital ecosystem that enables these physical assets to operate as an integrated whole. In an era where visibility drives velocity and intelligence shapes competitiveness, data has become the new infrastructure of logistics.

This edition of Logistics Focus, titled **"ULIP: Building India's Digital Backbone for Integrated Logistics,"** explores the transformative role of the Unified Logistics Interface Platform (ULIP) in redefining the nation's logistics landscape. Conceived under the National Logistics Policy, ULIP represents a landmark step toward creating a unified, interoperable and intelligence-driven logistics ecosystem, one that connects stakeholders, systems and modes of transport through a common digital architecture.

The articles in this edition examine how ULIP is dismantling long-standing information silos and enabling unprecedented levels of transparency, efficiency and collaboration across supply chains. They delve into its role in facilitating multimodal logistics, enhancing operational visibility, streamlining compliance, fostering innovation and empowering businesses to make more informed and agile decisions. Together, these perspectives underscore a fundamental shift: from fragmented operations to connected ecosystems and from transactional logistics to strategic logistics intelligence.

The significance of this transformation extends far beyond operational efficiency. It signals the emergence of a logistics framework that is more resilient, sustainable and future-ready, one capable of supporting India's aspirations of becoming a globally competitive economy. As physical infrastructure and digital infrastructure converge, the opportunities to unlock productivity, reduce costs, strengthen supply chain resilience and accelerate innovation are immense.

The future of logistics will belong not merely to those who move freight efficiently, but to those who harness information intelligently. ULIP is laying the foundation for that future.

We hope this edition serves as a valuable source of insight for policymakers, industry leaders, technology innovators, logistics professionals and all stakeholders committed to shaping the next chapter of India's logistics transformation.

Happy Reading!

Marketing Communications Team

Transport Corporation of India Ltd.

Preface

Understanding ULIP: The Foundation of India's Digital Logistics Ecosystem

The Unified Logistics Interface Platform (ULIP) is, at its core, a single piece of technical infrastructure: a federated API gateway launched under the National Logistics Policy on 17 September 2022 and operated by NICDC Logistics Data Services Ltd. (NLDSL). It integrates 44 systems across 11 ministries through 129 APIs and more than 1,800 data fields, spanning VAHAN, SARATHI, FASTag, FOIS, ICEGATE and the major Port Community Systems. The platform stores nothing centrally; it authenticates a query, routes it to the system of record, and returns a structured response. That architectural fact, a routing layer, not a data warehouse, is the constant across the three articles that follow. What differs across them is the altitude from which each author examines it.

The first article, by Avinash Kumar Singh of ENS Enterprises, takes the widest view. It places ULIP inside the full policy stack - PM GatiShakti, the National Logistics Policy, the Dedicated Freight Corridors, E-Logs and ONDC and traces its evolution from a data access layer toward a candidate substrate for AI-driven prediction, blockchain based trust and cross–border trade infrastructure. Read as a systems map, it explains why NLDSL chose a federated, UPI-like architecture over a centralised warehouse and where that architecture's present limits data quality variance across ministries, last-mile connectivity gaps and an escalating cybersecurity surface currently sit.

The second article, by Srihari Icharapu of Cargo Exchange, narrows the aperture to a single mode: road freight, which carries roughly two-thirds of India's freight tonnage and has historically been the least instrumented segment of the network. It documents how ULIP's integration of VAHAN, SARATHI, FASTag and e-Way Bill data converts truck dispatch from a phone call mediated guess into an API-verifiable event, with particular consequence for the sub five truck operators who make up the majority of India's fleet base.

The third article, by Nitish Rai of FreightFox, narrows further still to the enterprise integration layer itself. Drawing on three years of building ULIP–linked procurement, visibility and sustainability modules for manufacturers, it proposes a four stage adoption model - Access, Integration, Intelligence, Autonomy and argues that ULIP's strategic value will be decided not by API uptake but by how many organisations progress past basic integration into derived signals - corridor congestion indices, lane–rate fair–value bands, vehicle–cohort emissions intensity that feed directly into commercial decisions.

Read in sequence, the three articles move from architecture to application to operating discipline: what ULIP is, where its effects are already measurable on the road and what it takes for an individual enterprise to convert API access into decision grade intelligence. The throughline connecting them is the one set out in the Foreword that visibility, once a byproduct of physical movement, is now infrastructure in its own right and that the platform's remaining value depends less on further integration than on what each stakeholder chooses to build on top of it.

ULIP's Role in Building a Connected, Efficient Logistics Network in India

Avinash Kumar Singh, Co-Founder - ENS Enterprises

A Personal Reckoning with Framentation

Let me start with something that happened to me a few years ago not in a boardroom, but on the ground.

A supplier we worked with was moving a batch of goods from a manufacturing plant in the outskirts of Pune to a distribution centre in Gurgaon. Standard stuff. The goods left on a Tuesday. By Friday, nobody-not the transporter, not the plant dispatch team, not even the logistics broker who had booked the truck could say with any certainty where the vehicle was. Not approximately. Not roughly. Nobody knew.

This wasn't negligence. This was just the way things worked. The truck had crossed into a new state. The FASTag data sat in one ministry's system. The e-Way Bill was in another. The driver had a phone but the number had changed. The broker was working three other shipments. And the manufacturer's ERP system, which had cost crores to implement, had no integration with any of these external realities. It was a beautifully designed internal system that simply stopped at the factory gate.

That experience and countless variations of it that anyone in India's supply chain industry will recognise immediately is the founding problem that ULIP was built to solve. Not in theory. In practice. Every day.

The Scale of the Problem India Was Trying to Fix

To appreciate what ULIP represents, you have to sit with the scale of the problem first.

India's logistics sector is one of the largest and most complex in the world. The country moves over 4,600 million metric tons of goods annually across a road network of 6.4 million kilometres, 68,000 kilometres of railway lines, 12 major and 200+ non-major ports, and a rapidly expanding civil aviation cargo network. And yet, for decades, this entire system functioned without a common nervous system. Each mode of transport generated its own data. Each ministry managed its own systems. Each regulatory touchpoint demanded its own paperwork. The same truck, on the same journey, would encounter FASTag systems, e-Way Bill portals, state check-post records, VAHAN databases, and customs systems none of which had any awareness of the others.

The cost of this fragmentation was staggering. India's logistics cost sat at 13–14% of GDP for years, nearly double the global benchmark of 7–8%. In absolute numbers, that gap represented hundreds of thousands of crores in annual waste in idle trucks, delayed consignments, redundant documentation, and lost time. And this wasn't a problem sitting in isolation. It was a direct drag on manufacturing competitiveness, a hidden tax on every Indian product sold domestically or exported abroad.

The other number that tells the story brutally is this: 30–40% of trucks on Indian roads run empty. Think about that. Nearly every second truck you see on a national highway is either half-full or returning without a load, burning diesel and adding to emissions, simply because nobody had the information to match an available truck with an available load in real time. The trucking sector had volume but no intelligence. It was a market with enormous potential, operating at a fraction of its natural efficiency.

India also had 11 ministries each holding critical logistics data-railways freight information, port dwell times, customs clearance records, vehicle registration status, vehicle fitness certificates, driving licence validity, import/export documentation, and more. Each of these ministries had digitized their own operations over time, often admirably so. But they had digitized in silos. The result was a country with islands of data, surrounded by an ocean of disconnection.

That is the world that ULIP was designed to fundamentally change.

What ULIP Is-And Why It Was Designed the Way It Was

ULIP, the Unified Logistics Interface Platform, is India's national logistics data integration layer. Conceptualized by NITI Aayog and formally launched under the National Logistics Policy on September 17, 2022, it is operated by NICDC Logistics Data Services Ltd. (NLDSL). But the formal description doesn't quite capture what makes this platform interesting.

What ULIP actually does is deceptively simple: it provides a single API gateway through which any authorized stakeholder-a manufacturer, a logistics company, a startup, an MSME exporter can securely query government logistics data from multiple ministries in one call. You don't have to knock on 11 different doors anymore. You knock on one door, present your credentials, and the system retrieves what you need from across the government's data ecosystem.

The architecture choice here is worth pausing on. The government could have built a centralized data warehouse, a giant database that absorbs all logistics data from all ministries in one place. Many countries have tried this. It almost always fails, for predictable reasons: data governance battles, ministry turf wars, security concerns, massive upfront cost, and the near-impossibility of maintaining a central repository across systems with wildly different formats, update frequencies, and ownership structures.

NLDSL chose something smarter. ULIP is a federated system, it does not store data centrally. It builds a translation and routing layer on top of existing ministry systems, connects them through standardized APIs, filters out personally identifiable information through a rule-based engine before any data leaves the platform, and returns structured responses to authorized queries. The ministries keep their own data. The platform just creates a common language for them to be queried together.

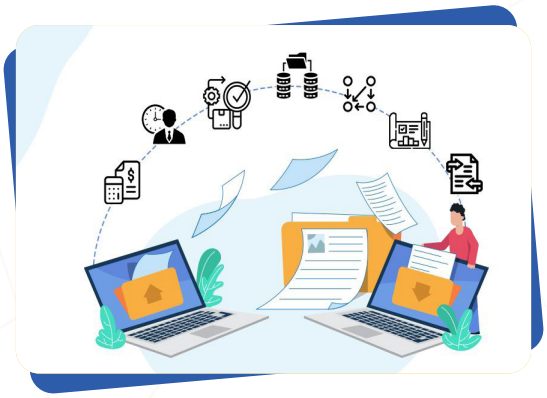
This is why the UPI comparison is not just rhetorical. UPI didn't replace your bank. It created an interoperability layer between banks. ULIP doesn't replace ministry systems. It creates an interoperability layer between them. The architectural principle is the same, and the potential impact is comparably transformational.

Today, ULIP integrates 44 systems from 11 ministries through 129 APIs, providing access to over 1,800 data fields. The ministry integrations span the entire logistics chain-Road Transport (FASTag, Vahan, Sarathi), Indian Railways (FOIS-Freight Operations Information System), Major Ports (Port Community Systems), Civil Aviation (ACMES, ACCS), Customs (ICEGATES), DGFT, GSTN, and several others. Over 1,600 companies are registered on the platform. More than 200 applications have been built by the private sector on top of ULIP's data infrastructure. By October 2025, the platform had crossed 200 crore API transactions, a number that was zero in September 2022.

What the Data Actually Enables: Five Real Shifts on the Ground

It's easy to list APIs and transaction counts. What matters is what they enable. Here are five concrete shifts that ULIP has made possible, going beyond the standard talking points:

1. Transporter Verification-Solving One of Logistics' Oldest Trust ProblemsIf



you've worked in procurement or supply chain, you know the anxiety that comes with onboarding a new transporter. Is the vehicle registered and fit for the road? Is the driver's licence valid? Does this truck actually exist, or are we being quoted an asset that will be substituted on the day of pickup? In India's trucking market, where over 90% of fleet owners have fewer than five trucks and the market is almost entirely unorganized, these weren't hypothetical concerns. Fraud, document substitution, and unfit vehicle deployment were routine risks.

ULIP's integration with VAHAN (vehicle registration), SARATHI (driving licences), and the Fitness Certificate database means any company can now verify a transporter's entire compliance profile in seconds, through a single API call. Companies like Prism Johnson, Asian Paints, and Tata Steel are already doing this at scale using ULIP for automated transporter verification before dispatching goods. What used to be a two-day manual process involving phone calls and document photography has become a sub-second API query. The trust infrastructure for freight contracting has fundamentally improved.

2. Multi-Modal Visibility-Seeing the Whole Journey for the First Time

Before ULIP, visibility in India's supply chain meant you had visibility within a mode. If your freight was on an Indian Railways wagon, you could track it through FOIS. If it was at a port, you could query the Port Community System. If it was on a truck, you might have GPS or you might have nothing. But nobody had a single view that stitched these modes together into one coherent shipment journey.

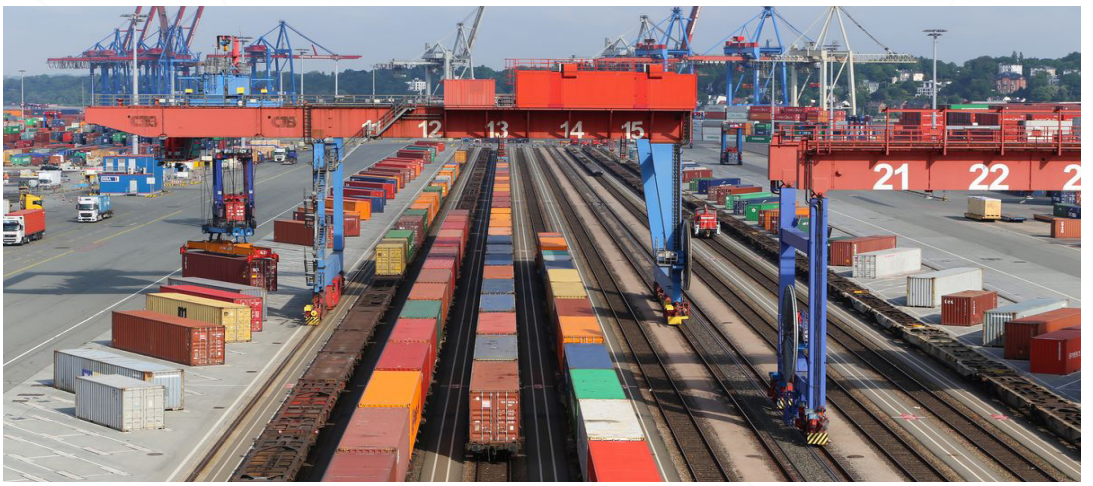
ULIP's API ecosystem enables exactly this, a consolidated query that pulls shipment status from rail, road, ports, and air cargo systems into one response. For manufacturers managing complex supply chains with multiple handoffs, this is not an incremental improvement. It is a qualitative change in how planning and exception management work. When you can see the full picture, you can intervene at the right point. You can call a warehouse manager to expedite handling before a vessel arrives, not after the shipment goes into port detention. You can reallocate production schedules based on actual rail arrival times, not hoped-for ones.

3. Empty Truck Problem-Where ULIP Becomes a Market Intelligence Layer

One of the most interesting and least discussed applications of ULIP is its potential to address India's chronic empty-miles problem. As mentioned earlier, 30–40% of Indian trucks run empty in one direction. This is not a driver behaviour problem. It's an information problem. A fleet owner in Ahmedabad has no reliable way of knowing that a shipper in the industrial estate 40 kilometres away needs a truck on the same corridor his driver is about to return empty.

Startups building on ULIP's data are beginning to crack this. AI-powered load-matching platforms that draw on ULIP's real-time vehicle location data (via FASTag and Vahan APIs) can now match available trucks with available loads in near-real-time. One Gurugram-based startup, TrucksUp, has already onboarded 215,000+ truckers and moves 2 million tons of freight monthly using exactly this kind of data-driven matching. The infrastructure enabling this is ULIP. When you have government-verified real-time location and status data on commercial vehicles at scale, you have the substrate for a genuine freight exchange, not just an app, but a data-backed market.

4. EXIM Visibility - Serving India's Export Ambitions



India has set an ambitious $2 trillion export target by 2030. Reaching that target requires India's export infrastructure to work reliably enough that global buyers trust it with their supply chains. That trust is built, one shipment at a time, through visibility and predictability.

The Logistics Data Bank (LDB), which operates alongside ULIP and has now synced with ULIP APIs as LDB 2.0, has tracked over 75 million EXIM containers across 101 Inland Container Depots. For an exporter, this means container-level visibility from the factory gate all the way to the port of loading. For a foreign buyer, it means their Indian supplier can provide shipment status updates that are backed by official government data, not just the transporter's word.

The integration with ICEGATE (customs) through ULIP has also begun to reduce one of the most painful friction points in India's EXIM logistics: customs documentation and clearance. When a customs officer can query a shipment's full compliance history through ULIP, and when a freight forwarder can verify that all documentation is in order before the truck even reaches the port gate, the number of hold-ups at port entries begins to fall. In a sector where a single day's delay in a container can cost tens of thousands of rupees, this is not abstract value creation.

5. Carbon Visibility - The Sustainability Shift Nobody Saw Coming

This one is quietly significant. The TCI-IIMB Supply Chain Sustainability Lab at IIM Bangalore has integrated India's first ISO 14083-certified Transportation Emissions Measurement Tool (TEMT) directly into ULIP via a dedicated Carbon Emissions API. What this means in practice is that a company using ULIP for freight tracking can, in the same query that gives it shipment location and ETA, also get the carbon emissions profile of that shipment.

Until now, green logistics in India was largely aspirational. Companies made broad modal-shift commitments "we will move X% of freight to rail" without the data to know whether those commitments were actually being met, or whether the rail option was actually greener in a given corridor and season. ULIP's carbon API makes this real. A shipper can now compare road versus rail versus coastal shipping on both cost and emissions, for a specific lane, in real time. TCIL is already using this capability to evaluate and adopt greener transport alternatives.

As Scope 3 emissions reporting becomes mandatory for large companies under ESG frameworks, and as global supply chains face increasing scrutiny for their climate footprint, this carbon visibility layer will become one of ULIP's most commercially significant features. What is today a progressive choice will, within a few years, be a compliance requirement. The infrastructure is already in place.

The Ecosystem ULIP Is Embedded In

ULIP doesn't exist in a vacuum. Understanding its full significance requires placing it within India's broader logistics policy architecture, a coordinated set of reforms that, when viewed together, represent the most ambitious logistics transformation India has ever attempted.

PM GatiShakti

PM GatiShakti National Master Plan, launched in October 2021, addressed the planning-coordination failure in infrastructure, the old problem of highways built without rail connections, ports developed without adequate road access. By bringing 57 ministries and 36 states/UTs onto a single geospatial platform with 1,700+ data layers, GatiShakti created the physical infrastructure coordination layer. Projects that used to take months to plan because they required physical site surveys and inter-ministerial coordination can now be evaluated and aligned in weeks.

National Logistics Policy

The National Logistics Policy (NLP), launched in September 2022 alongside ULIP, set the policy goals: bring logistics costs to under 10% of GDP, achieve a top-25 rank in the World Bank Logistics Performance Index by 2030, and build a professional, digitally-enabled logistics workforce. Three years on, NLP has delivered measurable results, logistics costs have dropped to 7.97% of GDP in FY2023–24, ahead of most projections. India ranked 38th in the World Bank Logistics Performance Index in 2023, up from 44th in 2018 and 54th in 2014.

DFCs

The Dedicated Freight Corridors (DFCs), the Eastern and Western DFCs are fundamentally changing the economics of rail freight in India, offering higher speeds, greater reliability, and double-stacking capability that makes rail genuinely competitive with road on major industrial corridors. When ULIP's FOIS integration gives shippers real-time visibility of freight wagon status on DFCs, it removes one of the key psychological barriers to rail adoption: the uncertainty about where your goods are.

The E-Logs (Ease of Logistics) portal gives industry a structured escalation mechanism to raise operational bottlenecks directly with government. Unlike typical grievance portals that disappear feedback into bureaucratic silence, E-Logs has a real-time dashboard that senior logistics officials monitor. It has driven resolution of over 1,000 operational issues since its launch. In a sector where regulatory friction is a daily reality, this feedback loop matters enormously.

ONDC (Open Network for Digital Commerce) is where the most interesting future integration lies. ONDC has opened up India's digital commerce infrastructure to millions of MSMEs who previously had to operate exclusively within closed platforms. As ONDC-enabled sellers access new geographies and new customers, their logistics complexity increases proportionally. A handloom cooperative in Varanasi selling on ONDC to a customer in Bangalore needs logistics intelligence it has never had access to before. ULIP is the natural fulfillment backbone for ONDC's commerce ambition. The convergence of ONDC's demand signals with ULIP's supply chain visibility would create India's most complete end-to-end commerce infrastructure.

The Startup Ecosystem That ULIP Has Unlocked

Something I find genuinely exciting about ULIP and I say this as someone who has worked with open networks at the infrastructure level is what the platform has done for India's logistics technology ecosystem.

Government-built data platforms, in my experience, often create a mismatch between what gets built and what the market actually needs. ULIP's open API model, combined with the ULIP Logixtics Hackathon series, has deliberately inverted this dynamic. Rather than building every application itself, NLDSL opened the platform to the startup community and the startup community responded.

The ULIP Hackathon 2.0, organized by NLDSL in partnership with NITI Aayog's Atal Innovation Mission and Startup India, drew hundreds of teams building real applications on ULIP's data. CargoFL, one of the national-level winners, demonstrated enterprise-scale transport automation using ULIP's integrated APIs, solving real enterprise visibility and compliance challenges. Other participants built solutions for agri-cold-chain monitoring, MSME freight financing (using ULIP's cargo data as collateral intelligence), driver wellness platforms, and AI-driven demurrage prediction at ports.

What this hackathon model achieves is something policy documents can't: it puts real-world problem solvers in front of real-world data and says "show us what's possible." The 200+ applications built on ULIP today didn't come from a central product team. They came from companies and individuals who spotted a specific problem, found that ULIP's data was the missing ingredient, and built the solution. That's a healthier innovation model than top-down platform development, and it's exactly how ONDC has also built its ecosystem.

Where ULIP Still Has Work to Do - Honest Observations

I want to be direct about the gaps, because the biggest disservice you can do to a platform with genuine promise is to pretend it has no challenges. The logistics community knows better, and so do the policymakers who are actually trying to improve it.

The digital divide is not solved. India's trucking industry is dominated by small fleet owners over 75% of fleet operators own fewer than five trucks. While platforms like TYT (Track Your Truck), built on ULIP, are specifically designed to reach this segment, the reality of adoption in Tier III towns and rural freight corridors is different from the reality in Nhava Sheva or Gurgaon. A fleet owner in Darbhanga managing two trucks may have limited smartphone connectivity, limited digital literacy, and limited incentive to change systems that are familiar even if inefficient. ULIP's aggregate transaction numbers are impressive. Deep penetration in the long tail of Indian trucking is still aspirational.

Data consistency varies by ministry. ULIP is only as good as the data flowing through it. Some government systems - VAHAN, FASTag, ICEGATE are mature, high-quality, real-time data sources. Others have legacy architecture, inconsistent update frequencies, or data completeness issues that limit the reliability of certain API responses. Telling a large manufacturer that ULIP has 1,800+ data fields is impressive. The honest follow-up is that not all 1,800 fields are equally reliable, equally current, or equally actionable. Improving data quality at the source level, across multiple ministries with different digital maturity levels, is unglamorous work but it is the real foundation of ULIP's long-term usefulness.

The last mile remains physical. ULIP can optimize movement across the connected network. It cannot yet reach the parts of the network that are not connected. India's cold chain infrastructure covers less than 2% of GDP-equivalent investment compared to global benchmarks. Warehousing quality in Tier II and III markets is insufficient. Road connectivity to small industrial clusters, especially in the Northeast and Central India, remains a physical constraint that no API can solve. The informational layer and the physical layer have to advance together. ULIP has dramatically improved the former; the latter requires continued investment.

Cybersecurity and data trust are escalating concerns. As ULIP processes hundreds of crores of transactions, its attractiveness as a target for bad actors increases proportionally. Digital fraud in India's truck-hire market is documented and widespread. A platform that combines vehicle location data, cargo details, business identity information, and regulatory status into one accessible interface requires a security posture that is dynamic, not static. NLDSL has built PII filtering and authentication into the platform's core, but security is not a one-time architectural choice, it is a continuous operational discipline that must scale with the platform's growth.

ULIP 2.0 needs interoperable smart contracts. The current architecture is fundamentally a data-access layer. It can tell you where a truck is, whether a driver's licence is valid, whether a container has cleared customs. What it cannot yet do is automatically execute the business logic that flows from that data: release a payment when cargo is confirmed delivered, trigger a penalty clause when dwell time exceeds a threshold, generate a carbon credit certificate when a modal shift is verified. Adding smart-contract logic to ULIP's transactional backbone, what some are already calling ULIP 2.0 would move the platform from a visibility infrastructure to a transactional infrastructure. That is a much bigger opportunity, and it requires deeper private-sector co-design than the current architecture supports.

The Road Ahead: What the Next Five Years Should Look Like

India has built the foundation. The question now is what gets built on it.

AI and predictive intelligence at national scale. The 200 crore+ API transactions ULIP has processed represent an extraordinary longitudinal dataset about how India moves goods which corridors are most congested, at what times, in which seasons; which port combinations deliver the most reliable dwell times; which transporter profiles correlate with on-time performance. Machine learning models trained on this data can generate predictive ETAs, forecast bottlenecks before they materialise, and recommend modal and routing decisions that no human planner could compute at scale. The data is there. The models are improving fast. By 2027, a logistics manager at an Indian manufacturer should be able to receive an AI-generated recommendation every morning on which shipments are at risk that day and what the optimal mitigation is all fed by ULIP data.

Blockchain for freight trust at scale. India's logistics market suffers from a fundamental trust deficit that manifests in endless paper trails, manual verification rituals, and the reluctance of sophisticated shippers to work with unproven small transporters. Blockchain-based tamper-proof documentation for cargo manifests, proof of delivery, vehicle fitness histories, and driver records can create a shared truth layer that every stakeholder in a freight transaction can rely on without trusting any single intermediary. ULIP's data becomes even more powerful when it's paired with an immutable audit trail. The technology is mature enough. The use case is proven in pilots. What's needed is a standardization initiative that the government can drive, with NLDSL as the natural convener.

ULIP as a cross-border trade infrastructure. India's logistics ambitions don't stop at its borders. As India positions itself as an alternative global manufacturing hub, the ability to offer seamless, digitally transparent cross-border logistics to multinational buyers and global freight forwarders becomes a competitive differentiator. ULIP's architecture is fundamentally extendable to cross-border scenarios connecting India's customs systems with counterpart agencies in partner countries, enabling pre-arrival clearance, and providing end-to-end visibility for international shipments from factory in India to distribution centre abroad. Several SAARC neighbours and ASEAN partners face similar logistics digitization challenges. India's ULIP model could become a template for South-South logistics cooperation.

ULIP–ONDC deep integration: India's commerce OS. The integration I am most personally invested in seeing is the deep convergence of ONDC and ULIP. ONDC is unlocking demand connecting millions of sellers to millions of buyers across the country. ULIP is unlocking supply chain intelligence. When these two systems are deeply integrated, an MSME seller in any part of India should be able to receive an order, get an instant logistics recommendation (which carrier, which mode, what rate, what carbon profile, what ETA), confirm the booking, and have the entire transaction, commerce and logistics recorded on a shared digital infrastructure that no single platform controls. This is what "logistics democratization" actually looks like in practice, not as a phrase but as an architecture.

Green logistics as competitive positioning. India's low-carbon transition in logistics is not just an environmental imperative, it is increasingly an export market requirement. European buyers are implementing Carbon Border Adjustment Mechanisms. Global brands are demanding Scope 3 emissions data from their supply chains. Indian exporters who cannot provide credible, auditable carbon data for their freight will lose business to competitors who can. ULIP's Carbon Emissions API, built with ISO 14083 certification, positions India to offer exactly this to global trade partners. Scaling this capability, embedding it in every major TMS used by Indian exporters, integrating it with ICEGATE for export documentation, and connecting it to international emissions registries is a strategic priority that India's logistics policy community should move on urgently.

A Word on What This Means for ENS Enterprises and Companies Like Ours

Working at the intersection of open network protocols, digital commerce, and supply chain technology, I have a specific lens on ULIP that is different from a pure logistics operator or a pure policy analyst.

What ULIP has done, fundamentally, is create a public digital goods layer for India's logistics sector in the same tradition that UPI created for payments and ONDC is creating for commerce. This layer does not belong to any company. It cannot be monopolized. It cannot be used to lock in sellers or shippers to a single platform. Its value increases as more participants use it, build on it, and contribute to its evolution.

For companies building at the application layer, as ENS Enterprises does across multiple platforms, this is transformative. We no longer have to make impossible choices between data access and neutrality. We can build logistics intelligence applications for MSME sellers, for ONDC network participants, for cold-chain operators, and for freight-tech startups, all drawing from the same trusted, government-verified data infrastructure. The playing field has been leveled. The cost of building supply chain visibility for a small business is no longer orders of magnitude higher than it is for a large enterprise. That is a structural change in what is economically viable to build for whom.

The larger opportunity, as I see it, is in the intersection of ULIP and ONDC for the specifically Indian problem of small-seller logistics. India has 63 million+ MSMEs. Most of them have no access to the kind of logistics intelligence that large manufacturers take for granted. A small textile exporter from Surat doesn't know that by routing her shipment via a coastal vessel rather than a full-road haul, she can cut transit cost by 18% and carbon emissions by 40%. She doesn't know because nobody has shown her not because the data doesn't exist. ULIP has the data. ONDC can reach her. The bridge between them is the application layer that companies like ours are in a position to build.

Conclusion:

The Quiet Architecture of a Logistics Superpower

The loudest moments in India's logistics story have been the physical ones, the opening of the Eastern Dedicated Freight Corridor, the launch of major ports, the inauguration of expressways. These are visible, tangible, photogenic moments that rightfully attract attention and celebration.

But the transformation that may matter most in the long run is quieter. It lives in a 129-API platform, processing a crore of transactions every week, connecting ministries and manufacturers and startups and MSMEs in a shared data ecosystem that didn't exist three years ago.

India's logistics cost has dropped from 13–14% of GDP to 7.97%, the lowest in the country's modern economic history. India's Logistics Performance Index rank has climbed from 54th to 38th in a decade. Two hundred crore API transactions have been processed on a platform that was zero in September 2022. These are not just statistics. They are evidence of structural change of a logistics ecosystem slowly learning to think of itself as one connected network rather than a collection of independent actors operating in the dark.

ULIP is not finished. No infrastructure of this ambition ever is. The digital divide is real. The data quality gaps are real. The last-mile infrastructure deficits are real. The cybersecurity challenges are real. Anyone who tells you ULIP has solved India's logistics problem is either uninformed or overselling.

But here is what is equally real: India now has, for the first time, a working interoperability layer for its logistics data ecosystem. It has a proof point that public-private collaboration on digital public infrastructure can work at scale. It has a data substrate on which AI, blockchain, green logistics, and commerce convergence can be built. And it has a growing community of startups, enterprises, and policymakers who are invested in making it better.

The UPI story took years to play out. The ONDC story is still being written. The ULIP story is in its early chapters. The architecture is sound. The momentum is real. And if the logistics community carriers, manufacturers, technology builders, policymakers, and shippers stays engaged and honest about both the progress and the gaps, what India builds on this foundation could genuinely become a model for the world.

References

1. https://solwerindia.com/blog/2025/predictive-maintenance-equipment-management/
2. https://www.drishtiias.com/daily-updates/daily-news-editorials/infrastructure-and-logistics-the-engine-of-indias-competitive-growth
3. https://www.linkedin.com/posts/shiva-krishna-236392182_indianlogistics-trucking-returnload-activity-7414893595012546561-ciaA - Bottom Line The return-load problem is not a truck problem—it's a network problem. ... trucks return...
4. https://www.linkedin.com/pulse/revolutionizing-indias-logistics-how-ulips-100-crore-api-sai-pothuri-nwuyc
5. https://www.superprocure.com/blog/ulip-api-impact-on-indian-logistics-comprehensive-discussion/
6. https://cargotalk.in/ulip-gets-terrific-response-from-industry-stakeholders/
7. https://cargotalk.in/how-nldsl-made-ulip-a-public-private-digital-success/ - ULIP is a rare case study where public–private collaboration in India has worked and set the governm...
8. https://www.linkedin.com/posts/nicdclogistics_ulip-activity-7389954648205348864-mG9Q
9. https://www.devdiscourse.com/article/business/3313664-ulip-empowers-logistics-sector-with-100-crore-api-transactions
10. https://www.ibef.org/news/unified-logistics-interface-platform-ulip-surpasses-100-crore-application-programming-interface-api-transactions-enabling-seamless-smart-and-sustainable-logistics
11. https://www.linkedin.com/posts/virendrayaduvanshi_ailoadmatching-emptymilesreduction-logisticsai-activity-7401606084555378688-KnXQ
12. https://www.facebook.com/yourstorycom/posts/indias-trucking-sector-faces-a-major-challenge-40-of-trucks-return-empty-wasting/1086214946873812/

13. https://www.drishtiias.com/daily-updates/daily-news-editorials/logistics-for-india-s-global-trade-ambitions
14. https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/nov/doc20251127708301.pdf
15. https://www.investindia.gov.in/team-india-blogs/infrastructure-logistics-backbone-indias-next-decade-growth
16. https://tcil.com/wp-content/uploads/2024/12/TCI-IIMB-Supply-Chain-Sustainability-Lab-at-IIM-Bangalore-Becomes-the-First-Organization-in-India-to-Achieve-ISO-14083.-The-emission-factors-API-is-now-available-on-ULIP-platform.pdf
17. https://www.linkedin.com/pulse/indias-logistics-leap-2025-supply-chain-milestones-2026-outlook-pxcmc
18. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2167224&reg=48&lang=2
19. https://www.drishtiias.com/daily-updates/daily-news-analysis/logistics-performance-index-2023
20. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2082674&reg=48&lang=2
21. https://www.allcargologistics.com/insights/news-press-releases/nlp-3-transforming-india-s-global-trade-strategy
22. https://www.cargofl.com/post/unlocking-the-future-of-logistics-what-ulip-is-and-why-cargofls-win-matters
23. https://blog.hack2skill.com/ulip-logixtics-hackathon-20-driving-innovation-in-indias-logistics-landscape
24. https://www.ijcms2015.co/file/2023/aijra-vol-8-issue-3/aijra-vol-8-issue-3-74.pdf
25. https://www.fr8.in/blog/unified-logistics-interface-platform-ulip-india/
26. https://cargoinsights.co/from-vision-to-resilience-how-execution-will-define-indias-logistics-future/
27. https://www.linkedin.com/pulse/indias-digital-logistics-growth-2026-building-connected-intelligent-l9vxc

Disclamer:

The views expressed are solely that of the author.

Company Profile

ENS Enterprises Limited is a leading digital transformation and technology consulting company headquartered in Noida, India. Established in 2016, the company specializes in delivering innovative software solutions, e-commerce platforms, enterprise applications, mobile app development, cloud services, and emerging technology solutions.

With expertise across Shopify Plus, ONDC integration, AI/ML, IoT, DevOps, and custom software development, ENS Enterprises helps businesses accelerate their digital journey, enhance customer experiences, and drive operational efficiency. The company serves clients across diverse industries, including retail, e-commerce, manufacturing, logistics, and financial services.

Recognized by Startup India and certified under ISO 27001:2022, ENS Enterprises combines technology expertise, agile delivery, and a customer-centric approach to build scalable and future-ready digital solutions for organizations in India and global markets.

Avinash Kumar Singh
Co-Founder, ENS Enterprises

Author Profile

Avinash Kumar Singh is a technology leader and Co-Founder of ENS Enterprises. He specializes in open network integration, digital commerce infrastructure, and supply chain digitization. His expertise spans ONDC implementation, B2B marketplace architecture, D2C commerce technology, and logistics technology solutions for MSMEs.

How ULIP is Quietly Rewiring India's Road Freight Sector

Srihari Icharapu, Founder and CEO - Cargo Exchange

We used to measure a nation's economic strength by physical infrastructure, the depth of its ports, the gauge of its rail lines, or the sheer length of its paved highways. Today, competitiveness is about data visibility. In India, the backbone of this transition is the Unified Logistics Interface Platform (ULIP), and its biggest impact is being felt where the country needs it most: on our roads.

Road transport has always carried the heaviest load in India, handling nearly two-thirds of all freight tonnage. Yet, for decades, it operated in the dark. When the National Logistics Policy (NLP) came out with a target to drastically slash logistics costs, many in the industry were skeptical. But today, four years into ULIP's rollout, that skepticism has faded. What started as an ambitious policy initiative has quietly become the operating system running India's trucking industry.

Cracking the "Black Box" of Indian Trucking

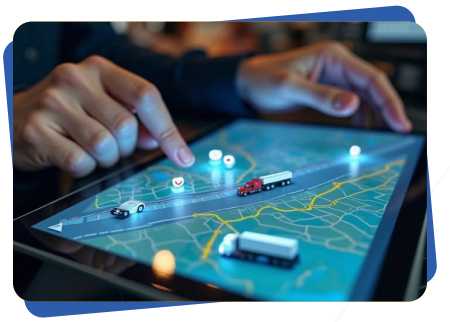
Historically, dispatching a truck was an exercise in trust and constant phone calls. Once a vehicle left the factory gate, it effectively entered a black box. Fleet managers spent half their day calling drivers to figure out where they were and if they would make their delivery windows.

ULIP changed this by doing something simple but massive: it tied together over 45 disparate government databases including Vahan, Sarathi, FASTag, and e-Way bills into a single API-driven ecosystem.

Today, if you're tracking a shipment from Delhi to Chennai, you aren't just looking at a GPS dot on a map. You have immediate visibility over FASTag toll crossings, vehicle fitness certificates, driver licenses, and customs status in one place.

For a manufacturer, this visibility is a game-changer. If a company in Coimbatore knows exactly when their container will hit Mundra Port, they can plan production schedules tighter and cut down on expensive safety stock.

Leveling the Playing Field for the Small Transporter



The real success of ULIP isn't how it helps massive, multinational logistics firms; it's how it works for the small, independent operator. India's trucking market is highly fragmented, made up of maximum no of operators who own fewer than five trucks. Historically, these small players couldn't afford expensive fleet management software or real-time tracking systems.

ULIP has leveled that playing field. Because the platform acts as an open-access digital public good much like UPI did for payments, local startups are building simple, affordable apps on top of it.

A transporter in Hosur with a handful of trucks can now easily find backhaul loads, generate digital invoices, and verify driver credentials instantly. Eliminating "dead miles" (driving empty on return trips, say from Vijayawada back to Hyderabad) directly protects their tight margins.

Making "Multimodal" More Than a Buzzword

We've talked about "multimodal logistics" for years, but the execution on the ground was always messy. In India, almost every journey begins and ends on a road. Transitioning a container from a truck to a train and back to a truck meant dealing with a mountain of paperwork and endless coordination.

By working alongside the PM Gati Shakti National Master Plan, ULIP has simplified this handoff. The integration of ICEGATE, e-Way bills, and railway systems means digital documentation can seamlessly follow a container from a Dedicated Freight Corridor (DFC) rail terminal straight onto a last-mile delivery truck.

This reduction in friction isn't just about saving hours; it also helps businesses run cleaner. When logistics companies can easily plan routes and switch between rail and road, they naturally burn less fuel. It also makes managing electric fleets for last-mile deliveries in congested cities a practical reality rather than a logistical nightmare.

Predictive Routing and Driver Welfare

Now that the baseline infrastructure is in place, the industry is starting to use the massive volume of data ULIP generates for predictive planning. We are moving away from merely tracking where a truck is to predicting where it should go. Startups and logistics teams are using this data to forecast highway congestion, plan around seasonal harvest rushes, and optimize routes during monsoon season.

Crucially, this is also beginning to impact driver welfare. India's eight million-plus truck drivers work under grueling conditions. By tracking trip durations and rest-stop usage through integrated platforms, companies can better manage driver shifts, reduce fatigue, and make highways safer.

The next natural step is expanding this cross-border. For India to scale its exports, our domestic logistics network needs to tie directly into global trade routes. Pilot projects are already exploring how to link ULIP with international freight networks, allowing a shipment to be tracked seamlessly from a warehouse in Nagpur to a port in Europe.

The Cultural Shift Ahead

Ultimately, the success of ULIP isn't just about the technology, it requires a cultural shift. It requires a highly fragmented industry to move from a mindset of hoarding operational data to one of sharing it.

While ULIP has provided the digital plumbing, the physical challenges remain. We still need better roadside amenities, a more supported driver workforce, and continued investment in highway infrastructure. But with a unified digital layer finally running under our fleet, Indian logistics has a clear path forward to becoming a globally competitive, trillion-dollar driver of the economy.

Disclamer:

The views expressed are solely that of the author.

CARGO EXCHANGE

Company Profile

Cargo Exchange India Private Limited is a logistics technology company founded in 2014 and headquartered in Hyderabad, India. It provides a cloud-based Transportation Exchange Platform (TEP) designed to digitize and automate end-to-end transportation operations across supply chains. The platform enables businesses to optimize freight procurement, improve operational efficiency, gain real-time shipment visibility, and enhance decision-making through advanced analytics and business intelligence.

Serving shippers, transporters, brokers, and logistics service providers, Cargo Exchange offers solutions for transportation management, route optimization, fleet management, freight sourcing, tracking, e-way bill generation, and digital control tower operations. Its technology-driven approach helps organizations reduce logistics costs, improve service levels, and scale operations efficiently through automation and centralized orchestration.

Srihari Icharapu
Founder and CEO of Cargo Exchange

Author Profile

Srihari Icharapu is the Founder and CEO of Cargo Exchange, a leading logistics technology platform focused on digitizing and optimizing transportation and supply chain operations. With a strong background in technology, enterprise solutions, and logistics innovation, he has been instrumental in developing Cargo Exchange's cloud-based Transportation Exchange Platform (TEP), enabling businesses to improve freight procurement, visibility, operational efficiency, and logistics decision-making through data-driven intelligence.

A recognized thought leader in the logistics and supply chain industry, Srihari frequently speaks at industry forums and conferences on topics such as multimodal logistics, transportation visibility, digital ecosystems, and supply chain optimization. Through his leadership, Cargo Exchange has emerged as a key enabler of digital transformation in India's logistics sector, helping organizations build more efficient, transparent, and resilient supply chains.

What ULIP Actually Changes: Notes From Three Years of Building on India's Logistics Data Backbone

Nitish Rai, Founder & CEO - FreightFox

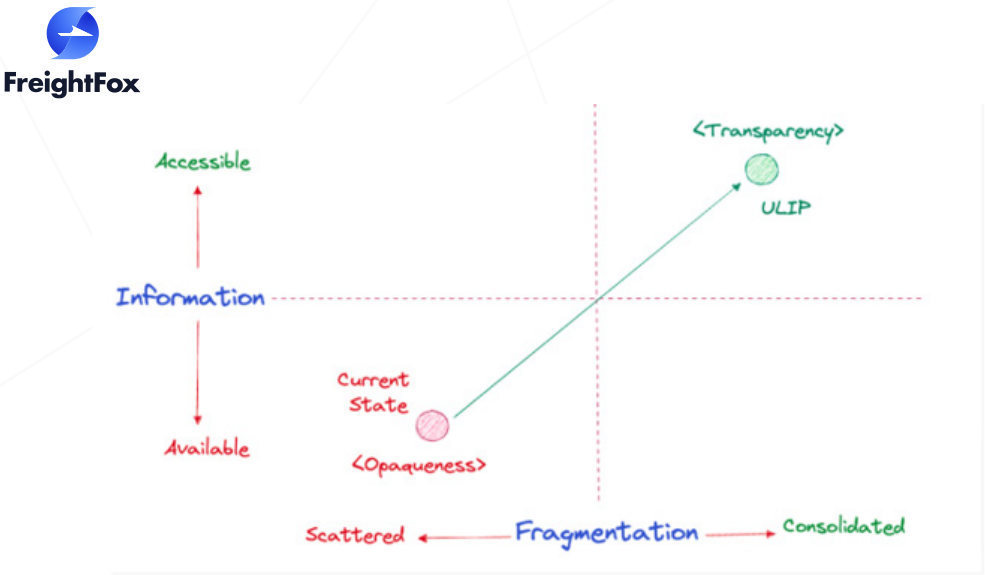
A practitioner's perspective on the Unified Logistics Interface Platform and why the bigger story is not the platform itself, but what it forces every logistics operator in the country to confront about their own data maturity.

The problem that nobody wanted to name

Before the Unified Logistics Interface Platform existed, an honest description of Indian freight intelligence would have read something like this: every meaningful piece of data about a truck, a driver, a consignment, a corridor, or a port lived in a different system, in a different ministry, in a different format, behind a different access regime. A manufacturer dispatching from Pune to Guwahati had no structural way to answer questions that should have been trivial for eg. *Is this vehicle compliant? Is this driver real? Is this lane congested today? Is this rate fair? What is my actual carbon footprint per trip?* etc. Without stitching together inference from third parties, partial telemetry, and a great deal of phone-call archaeology.

This is not a complaint about the past. It is a description of the inheritance. The Indian logistics sector was built corridor by corridor, ministry by ministry, regulator by regulator. The data fragmentation was the natural shadow of how the physical infrastructure itself had evolved and unsurprisingly, it had cost. The frequently-quoted figure that India's logistics cost as a share of GDP runs significantly above developed-economy benchmarks has many causes, but information asymmetry is the quiet, compounding one. When the buyer of freight cannot see, the seller cannot be fairly priced; when the seller cannot see, the buyer cannot be fairly served. Both sides build buffers into rates, into schedules, into contracts. The buffers are the cost.

ULIP, launched in September 2022 as part of the National Logistics Policy, is the first time the Indian state has treated this fragmentation as a solvable engineering problem rather than a policy aspiration.



What the platform actually is

The temptation, for anyone reading official descriptions, is to treat ULIP as a portal. It is not. It is a gateway to a piece of public digital infrastructure that exposes data already held across VAHAN, FASTag, SARATHI, FOIS, customs, port systems, waterways, civil aviation, and more, behind a single set of authenticated APIs governed by an NDA-bound use-case review process. By the time of the platform's most recent public updates, integrations had grown well past the original 30-system baseline, with millions of API hits processed and several hundred companies onboarded.

The architectural decision to expose ministerial data through APIs rather than to build yet another centralised database, or yet another government-owned application is the most important thing about ULIP, and the part most easily missed. APIs are infrastructure. They allow private innovation without forcing private players to lobby, integrate point-to-point, or wait for inter-ministerial committees. The state stays in the role it should occupy: custodian of the data, guarantor of access and lets the market build the applications.

If you have been in Indian logistics long enough to remember what it took to verify a single permit, this is not an incremental improvement. It is a structural one.

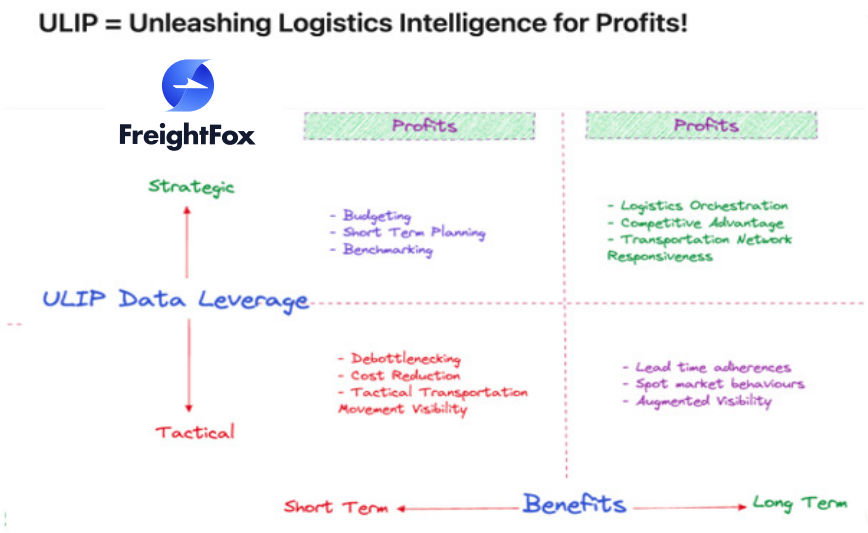
Why this matters more for manufacturers than for anyone else

Most public commentary on ULIP focuses on logistics service providers, startups, fleet operators, 3PLs. That focus is understandable but partial. The deeper beneficiary is the Indian manufacturer.

A manufacturer's logistics function does three things: it spends money procuring freight, it commits service to internal and external customers, and it carries the consequences of every trip which is financial, operational, and increasingly, environmental. All three of these activities are bottlenecked not by trucks, but by information. How does a CFO assess whether their freight rate negotiation was fair without an external benchmark? How does a supply chain head respond to a corridor disruption without knowing whether it's their issue or the network's? How does a sustainability team report Scope 3 transport emissions credibly when the underlying vehicle telemetry has historically lived only with the transporter?

The reason ULIP is, at heart, a manufacturer's tool is that it converts each of these questions from a vendor-mediated guess into a measurable, auditable signal that provided someone builds the layer that translates raw API responses into management answers.

That translation layer is the work. And it is harder than it looks.



The hackathon was a forcing function, not the destination

In 2022, when the first ULIP LogiXtics Hackathon was hosted by NITI Aayog, NICDC, and NLDS, more than five hundred teams entered. By the time the prototype stage closed, twenty-two prototypes were standing. Three were felicitated at the final stage; FreightFox was placed first. We have written about that elsewhere, and I do not propose to relitigate it here.

What I want to extract from that experience is the part that turned out to matter long after the trophy: the discipline of having to start from data, not from the product. We submitted three questions, deliberately framed in the language of a manufacturer rather than a technology vendor. *Can a manufacturer see freight cost movements at the level of a corridor or industry, before negotiating a contract? Can demand and capacity imbalance be read as a national signal rather than a regional rumour? Can a country measure its on-road emissions intensity at granular enough resolution to actually act on it?*

Each of those questions, individually, would have been speculative without ULIP. With ULIP, combining VAHAN registration data, FASTag movement data, and SARATHI driver data, they became answerable, with caveats and bounds. We built a national-level freight index prototype, a corridor mobility view, and a vehicle-age based emissions intensity map. None of those views were impossible before. They were just impossible to do credibly without the data backbone the platform had created.

The lesson we carried out of the hackathon was not "we can win contests." It was: *the platform does not give you intelligence. It gives you the right to ask better questions.* Intelligence is what you must build.

The maturity curve we now see across enterprises

Three years on, having now built ULIP-enabled features into our procurement, visibility, and sustainability modules and having watched several large manufacturers go through their own integration, I would describe what we see as a four-stage maturity curve. It applies as much to a transporter as to a Tata Steel or an UltraTech.

Stage 1: Access. A team gets the NDA signed, gets the API credentials, and pulls a few responses. This stage feels productive but produces almost no insight. Raw API responses from VAHAN or FASTag are not management information. They are exhaustive.

Stage 2: Integration. The team threads the API responses into existing operational workflows, vehicle and driver verification on dispatch, FASTag-based positional fallback when GPS is silent, automated document validation. Costs go down by small but compounding amounts. This is the stage where most successful adopters live today.

Stage 3: Intelligence. The team builds derived signals, corridor congestion indices, vehicle-cohort emissions footprints, lane-rate fair-value bands, capacity-tightness indicators and feeds these back into commercial decisions. This requires data engineering competence, not just integration competence. Most enterprises are not yet here.

Stage 4: Autonomy. The signals are wired into self-acting systems. Procurement reacts to a rate signal automatically. Sustainability reporting becomes a side-effect of operations rather than a quarterly project. Disputes resolve themselves because the audit trail is structurally present. Almost nobody is here. Whether anyone will be at scale within five years is, frankly, an open question.

The reason this matters: ULIP's strategic impact on Indian logistics will be determined not by how many companies reach Stage 1 but by how many reach Stages 3 and 4. The platform is necessary; it is not sufficient. The intelligence layer is what converts public infrastructure into private and public value.

What the data has told us that we did not expect

A few observations from working on ULIP-derived signals over the past two years, offered in the spirit of perspective rather than product.

First, freight rate dispersion across Indian corridors is wider than the conventional wisdom suggests, and it is not always a function of distance or commodity. Two physically identical lanes in the same state can clear at materially different rates depending on backhaul availability, terminal density, and seasonal patterns that only become legible when you can see vehicle flows across the network rather than within a single contract. This has uncomfortable implications for procurement teams that benchmark against narrow vendor sets.

Second, vehicle-age distribution across Indian freight is not a national average; it is a set of regional micro-economies. Pockets of older fleet: BS-II and BS-III vehicles still operating disproportionately on certain regional routes are not evenly distributed. Sustainability strategy that treats fleet renewal as a pan-India lever misses where the actual emissions reduction is buyable.

Third, the most reliable predictor of a transporter's operational quality is not their pricing or their tenure but their telemetry hygiene, whether their vehicles' FASTag patterns and registered specifications stay consistent over time. This is a signal almost no procurement team uses today, and it is sitting in plain view in the data.

These are not insights one finds in any single company's records. They are visible only when public data becomes API-addressable. That is the unlocking.

The harder questions ULIP has not yet answered

It would be intellectually dishonest to write about a platform purely in terms of its promise. A few honest constraints we have run into, which the next phase of work will need to address.

Data quality is uneven. Different ministries source systems have different update cadences, different completeness, and different latencies. A platform that exposes them through a uniform API necessarily inherits those asymmetries. Building reliable downstream products requires extensive guard-railing, outlier detection, fallback logic, freshness checks, that most enterprise IT teams are not yet equipped to do.

Governance and consent need to mature. The NDA-based use-case review is a sensible interim model. Over time, India will need a more granular, role-based, auditable consent and observability framework closer to how account aggregators have evolved on the financial side for ULIP to scale to its full potential without creating new privacy or competitive concerns.

The sectoral specificity gap is real. Coal, cement, fertiliser, food-grain, FMCG, autos, chemicals, each of these sectors has logistics requirements that are not satisfied by a generic vehicle-and-route data layer. The next horizon of ULIP value will come from sector-specific data overlays and sector-specific application development, not just horizontal integrations.

Adoption inside enterprises is the gating constraint. Technology is the easy part. The hard part is convincing a freight procurement team(s), long accustomed to negotiation as private craft, that an externally derived rate signal is a tool rather than a threat. This is organisational change, and no platform can do it for the customer.

What this means for the next two years

For founders and operators reading this, the practical takeaway is straightforward. The platform is here. The data is accessible. The governance is workable. The remaining work is to build the layer that turns API access into management insight, and management insight into operating discipline.

For policymakers, the message is similarly straightforward. ULIP has crossed the integration threshold; the value-creation threshold is the next one. Sector-specific data products, sharper consent and observability, and explicit benchmarks for adoption maturity (not just registration counts) will determine whether this becomes the foundational layer it is capable of becoming.

For Indian manufacturers, the framing we have come to use internally is this: visibility is your ability to see, agility is your ability to respond. Without the data backbone, you had neither. With ULIP, you can have both but only if you treat the platform as the start of a build, not the end of a procurement.

A closing note

We named our internal frame for what ULIP enables, somewhat tongue-in-cheek, *Unleashing Logistics Intelligence for Profits.* The phrasing was meant to be deliberately commercial because the only way a platform of this kind survives and deepens is if it produces measurable, defensible profit for the people who build on it. Public digital infrastructure that does not generate private return decays. ULIP, like UPI before it, will be measured not by how elegantly it was launched but by how thick the application layer above it grows.

That layer is being built right now, by a few hundred companies, in increments most outsiders cannot yet see. The strategic implication for the country is not that data has been opened. It is that, for the first time, the freight economy has been rendered legible enough to be optimised.

What we choose to do with that legibility is the actual question. And it is a question for the industry, not the platform.

Disclamer:

The views expressed are solely that of the author.

FreightFox

Company Profile

FreightFox is a full-stack Transportation Management System (TMS) that helps Indian manufacturers run their entire freight Procure-to-Pay cycle on. The platform leverages data intelligence and technology to streamline freight procurement and management, making logistics seamless, sustainable, and cost-effective. It serves industries such as Alcohol & Beverages, Fast-Moving Consumer Goods (FMCG), Automotive, etc. & is trusted by leading businesses such as AbInBev, Coca-Cola, JK Tyre, Bridgestone, Brembo, Atul etc.

Its advanced TMS offers top-tier supply chain management & visibility features, including scalability across complex, distributed networks, ensuring tailored solutions for diverse industry needs. By implementing FreightFox's solutions, clients have achieved significant operational improvements, including a 70% reduction in man-hours required for procurement, over 10% decrease in unplanned transportation costs, and approximately 8-15% reduction in overall freight budgets.

Nitish Rai
Founder & CEO, FreightFox

Author Profile

Nitish works closely with enterprise manufacturers and logistics teams, bringing a deeply practical, on-ground perspective to freight visibility and cost discipline. His understanding of freight economics in the Indian market is rooted in real operational experience, not theory.

A manufacturing industry veteran, Nitish has held leadership roles at Kirloskar, Thermax, and Fortum, gaining global exposure across complex supply chains. He is driven by a strong focus on solving real-world logistics challenges at scale.

Before founding FreightFox, he played a key role in scaling UdChalo and launched its defence logistics arm, Black Trunk Logistics. Today, he leads FreightFox in building a data-driven platform that enables Indian enterprises to make smarter, more efficient freight decisions.

Disclaimer

2026 Edition

Published by

Transport Corporation of India Ltd.

69 Institutional Area, Sector-32, Gurugram -122 001, Haryana, India

Tel: +91 124 238 1603-7

This magazine is being published on the condition and understanding that the information, comments and views it contains are merely for guidance and reference and must not be taken as having the authority of, or being binding in any way on, the author, editors, publishers, who do not owe any responsibility whatsoever for any loss, damage, or distress to any person on account of any action taken or not taken on the basis of this publication. Despite all the care taken, errors or omissions may have crept inadvertently into this publication. The publishers shall be obliged if any such error or omission is brought to their notice for possible correction in a future edition.

Credit goes to all original producers. In no way, we claim that this information has been originally generated by us. This is just a compilation for easy reference of the logistics fraternity.

All trademarks, products, pictures, copyrights, registered marks patents, logos, holograms, names, belong to respective owners.

All disputes are subject to the jurisdiction of competent courts in Delhi.

INTEGRATED MULTIMODAL LOGISTICS

ROAD
First-mile &
Last-mile Connectivity

RAIL
Reliable, Cost-effective
Long-haul Movement

SEA
Global Reach with
Cost Advantage

Every shipment has a journey.

The challenge is ensuring that every transition is efficient, reliable, and uninterrupted.

At TCI, we bring together road, rail, and sea into one integrated logistics network, creating smarter, faster, and more cost-effective supply chain solutions.

WHY MULTIMODAL LOGISTICS ?

- Optimized Transit Times
- Improved Cost Efficiency
- Greater Reliability & Visibility
- Reduced Operational Complexity
- Sustainable Freight Movement

POWERED BY

- Advanced Control Towers
- Real-Time Visibility
- Intelligent Route Planning
- Strong Warehousing & Hub Network
- Strategic Transport Partnerships

By selecting the right mode at the right time, we engineer seamless cargo movement from first-mile pickup to final delivery.

Transport Corporation of India Limited
TCI House, 69 Institutional Area, Sector 32, Gurugram - 122001| **Tel.:** +91 - 124 - 2381603-07
Web.: www.tcil.com | **E-mail Id:** corporate@tcil.com | **CIN:** L70109TG1995PLC019116

To Know more,
Scan the QR Code

Transport Corporation of India Limited
TCI House, 69, Institutional Area, Sector 32, Gurugram-122 001
Tel: 0124-238 1603-07 | **CIN :** L70109TG1995PLC019116
Email: corporate@tcil.com | **Website:** www.tcil.com

Online Presence