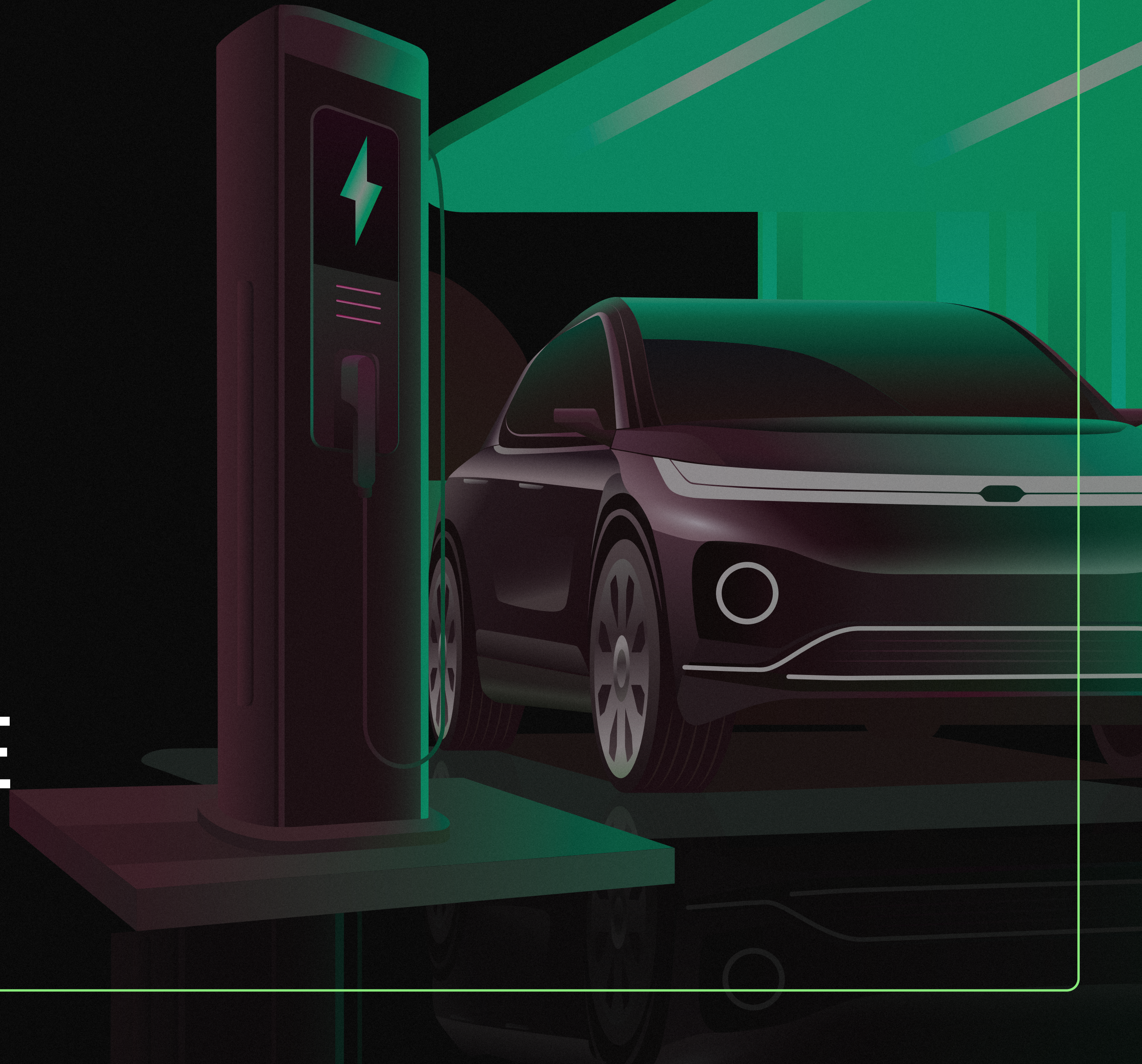
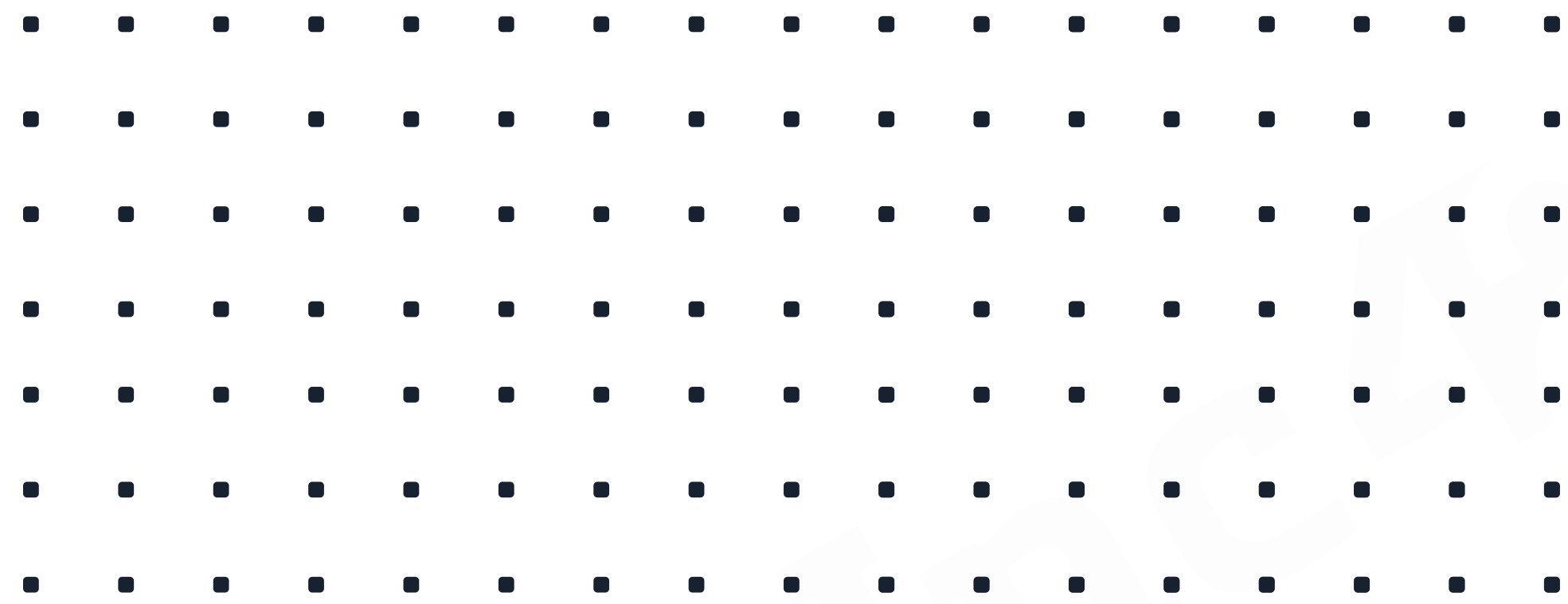


INDIA'S  
**ELECTRIC  
VEHICLE**  
STARTUP LANDSCAPE  
REPORT | 2025

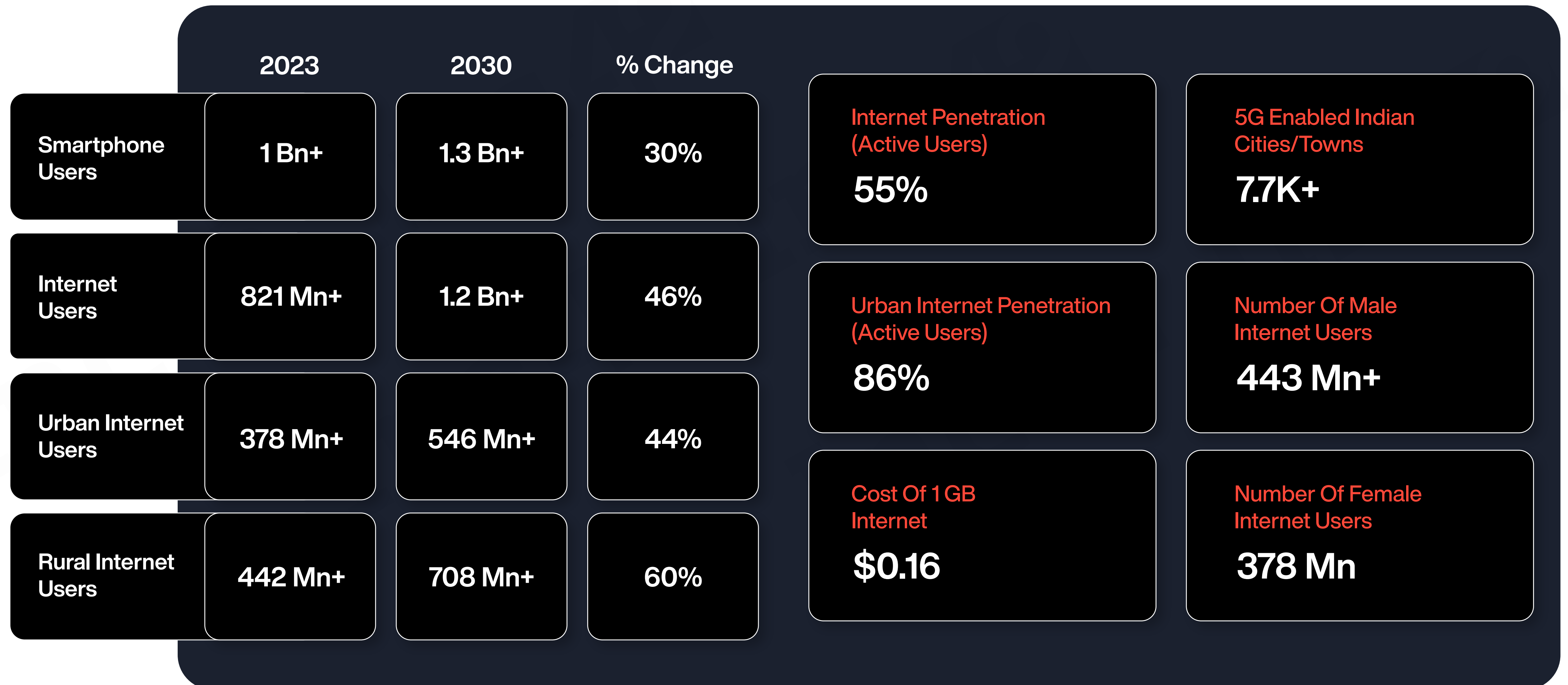




# Table Of Contents

- India's Digital Landscape
- India's EV Market Opportunity & Landscape
- Decoding India's EV Boom
  - ✦ The Value Chain
  - ✦ The Key Segments
  - ✦ EV Sales: An Overview
  - ✦ Players Shaping India's EV Future
- Decoding Government Initiatives Powering EV Revolution
- India's EV Charging Infra Overview
- EV Funding Landscape
  - ✦ Funding Analysis
  - ✦ Most Funded EV Startups
  - ✦ Investors Backing India's EV Future
- EV & The Rural India Future
- India's EV Unicorn & Soonicorn Landscape
- Ethanol - An EV Alternate
- Methodology

# India To Have 1.2 Bn+ Internet Users By 2030



Source: KANTAR, IAMA, Inc42 Analysis  
Note: The numbers for 2030 are estimated

# Key Highlights: India's Electric Vehicle Market

**\$132 Bn+** India's EV Market Opportunity By 2030

---

**662K+** 2W EV Sold In 2024

---

**Maharashtra** Recorded Highest Passenger EV Vehicle Sales, With 42000+ Units In 2024

---

**1.26 Mn+** EV Sold In 2024 Combined 2W, 3W & 4W

---

**2.8 Mn+** EV Targeted In PM E Drive Scheme From 2024-2026

---

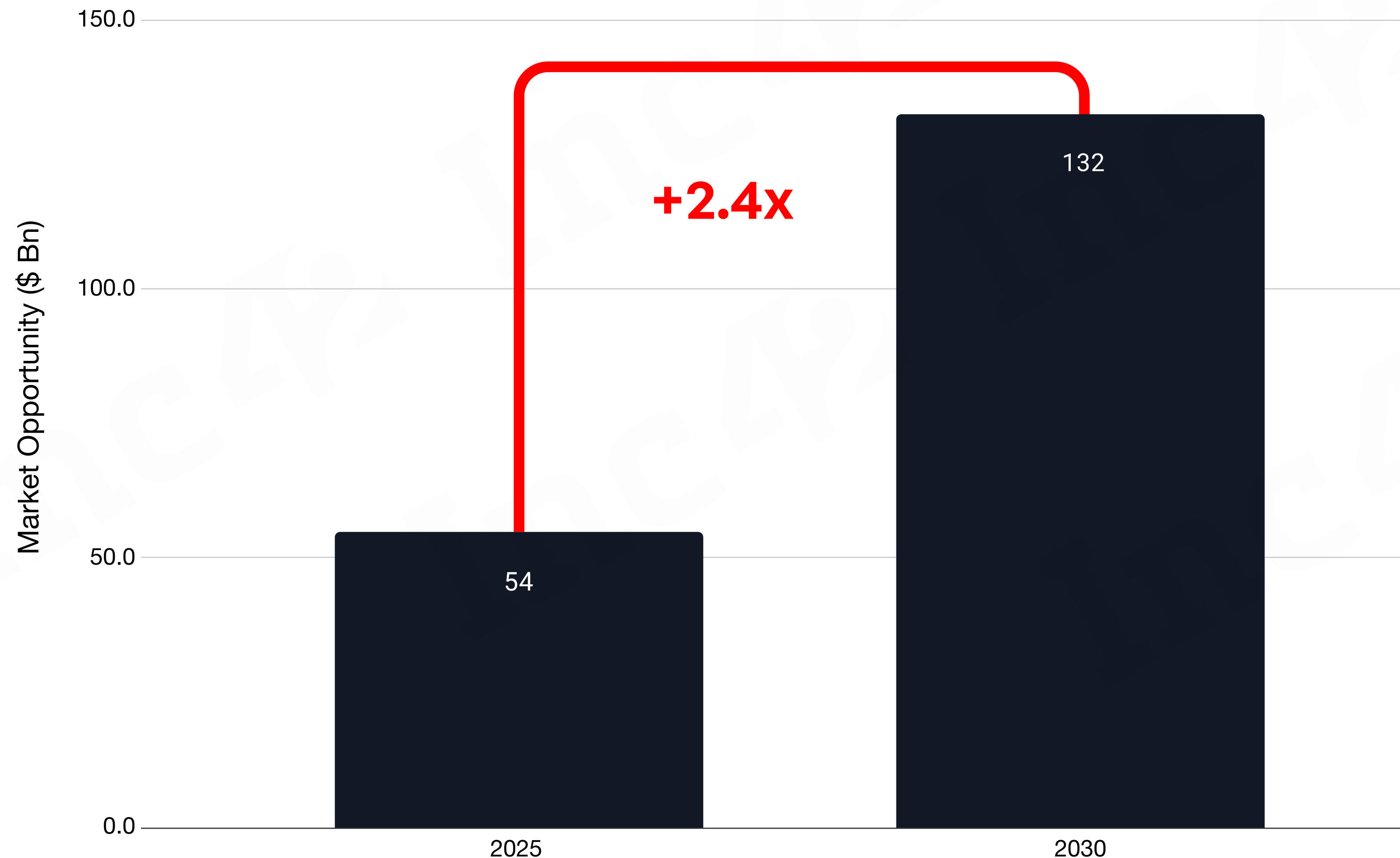
**3K+** Most Number Of EV Charging Stations In Maharashtra

Source: Inc42



# India's \$132 Bn EV Market Opportunity

The surge in EV adoption is fueled by 40% penetration in the 2W and 3W segments across India



- ◆ In the EV market, 2W vehicles dominate, contributing 85%–90% of all EV sales
- ◆ In the 3W passenger vehicle segment, EV penetration remains at 5%–7%, hindered by high costs and alternative options like CNG
- ◆ The market lacks 4W passenger EVs tailored for fleets, with prices still higher than CNG and ICE models

Source: Mordor Intelligence

Note: The market size represents the revenue potential of the EV industry, which is expected to capture 40% of India's total automotive market by 2030

# India's EV Startup Landscape: Who's Who Across Subsectors

## OEMs



## Battery Tech



## EV Charging Infrastructure



## Fleet & Mobility



Source: Inc42

Note: This is not an exhaustive list

# India's EV Boom

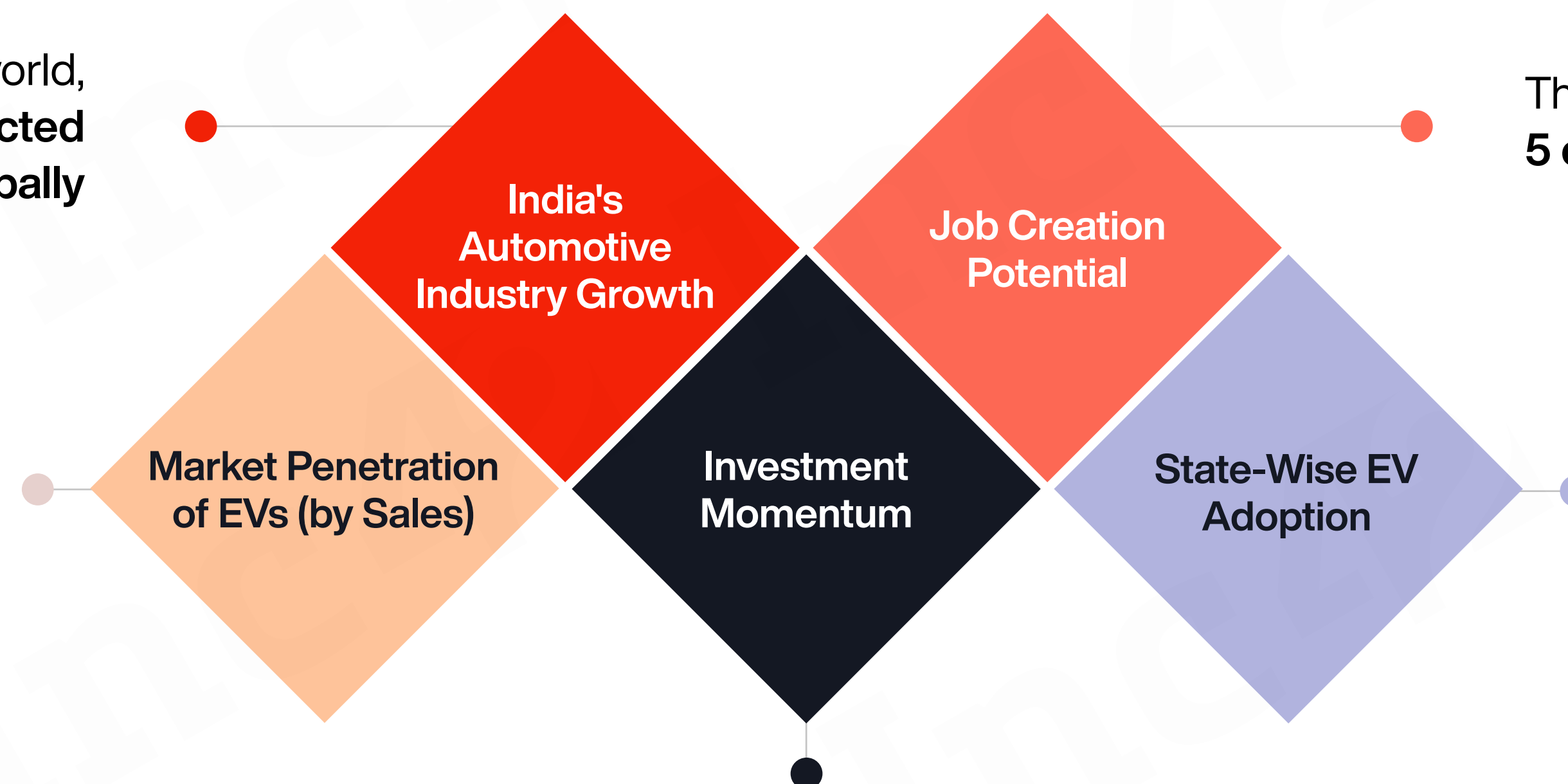
India's electric vehicle (EV) market is in a rapid growth phase, here's why:

Currently the fifth largest in the world, India's automobile sector is **projected to become the third largest globally** by 2030

**2-Wheelers (2W):** EVs dominate, accounted for 85%-90% of all EV units sold in India

**3-Wheelers (3W):** Make up 5%-7% of sales, primarily used for passenger transport

**4-Wheelers (4W):** Represent 7%-9% of sales, with higher adoption in specific regions



The EV industry is expected to generate **5 crore jobs by 2030**

**Uttar Pradesh:** Leads EV registrations nationwide with ~13%

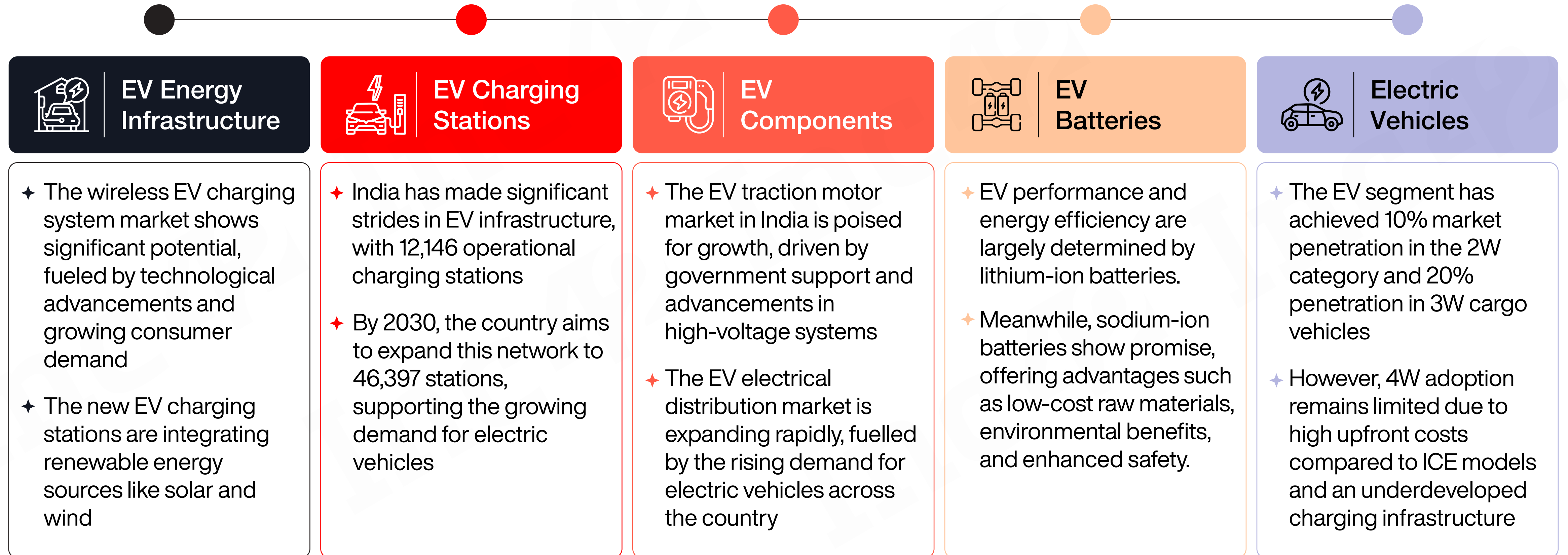
**Karnataka & Tamil Nadu:** Together with Maharashtra, Tamil Nadu, and Rajasthan, they account for ~25% of 2-wheeler registrations

**3-Wheelers:** ~28% of registration come from Uttar Pradesh, Bihar, Assam, and Delhi

**4-Wheelers:** Maharashtra records the highest passenger vehicle sales, with ~42,426 units

Investment in EV startups surged nearly 255% in 2021, with over **\$3.7 Bn raised since 2014**

# The EV Ecosystem Value Chain





# A Look At EV Sub-Segments

## Battery Tech

- ✦ This segment has attracted over \$37 Mn in funding since 2014
- ✦ Battery startups are driving advancements in performance and lifecycle, playing a crucial role in evolving the EV ecosystem
- ✦ Solid-state batteries, in particular, are witnessing significant growth due to ongoing innovations

## EV Charging Infrastructure

- ✦ The EV infra segment has secured over \$68 Mn in funding since 2014
- ✦ These startups are providing critical infrastructure to enhance usability and build range confidence
- ✦ The segments' growth relies heavily on partnerships with OEMs and strong government support

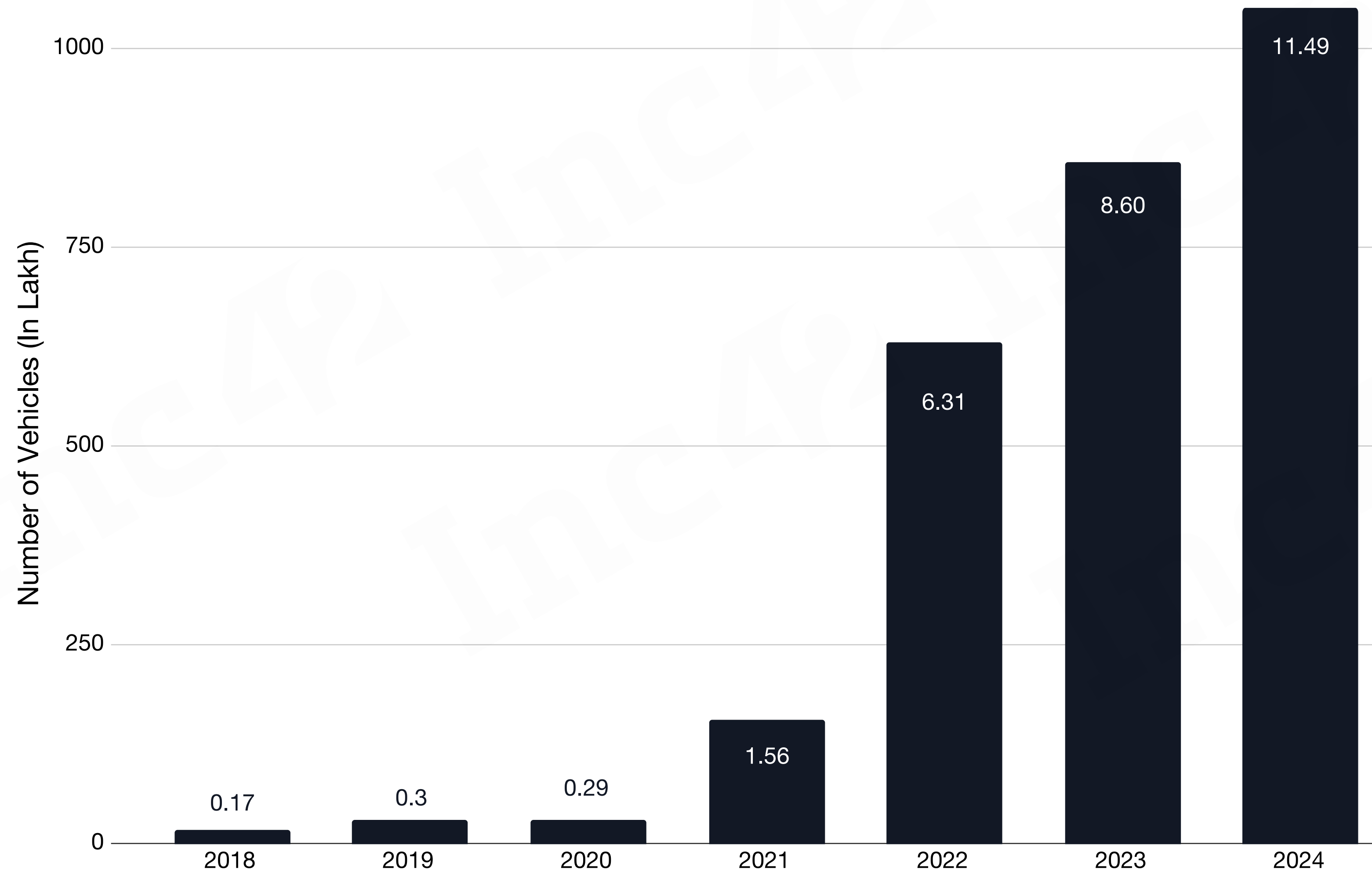
## Original Equipment Manufacturer (OEM)

- ✦ Emerging as the most lucrative segment, Indian OEM startups amassed \$2.7 Bn in funding over the past decade
- ✦ OEMs play a pivotal role as front-end players, delivering vehicles to the market and driving EV adoption
- ✦ Government support for OEMs is instrumental in building the EV ecosystem, enhancing vehicle cost competitiveness, and improving performance

## Fleet Mobility

- ✦ India is witnessing rapid growth in EV fleet adoption for last-mile delivery and ride-hailing services, and driven by cost savings, government incentives, and sustainability goals
- ✦ Fleet operators are leveraging battery swapping to reduce downtime and enhance operational efficiency, making it a more viable option for the EV market
- ✦ The development of dedicated swapping stations across cities and highways is enabling the scalability and reliability of EV fleets for both urban and intercity operations

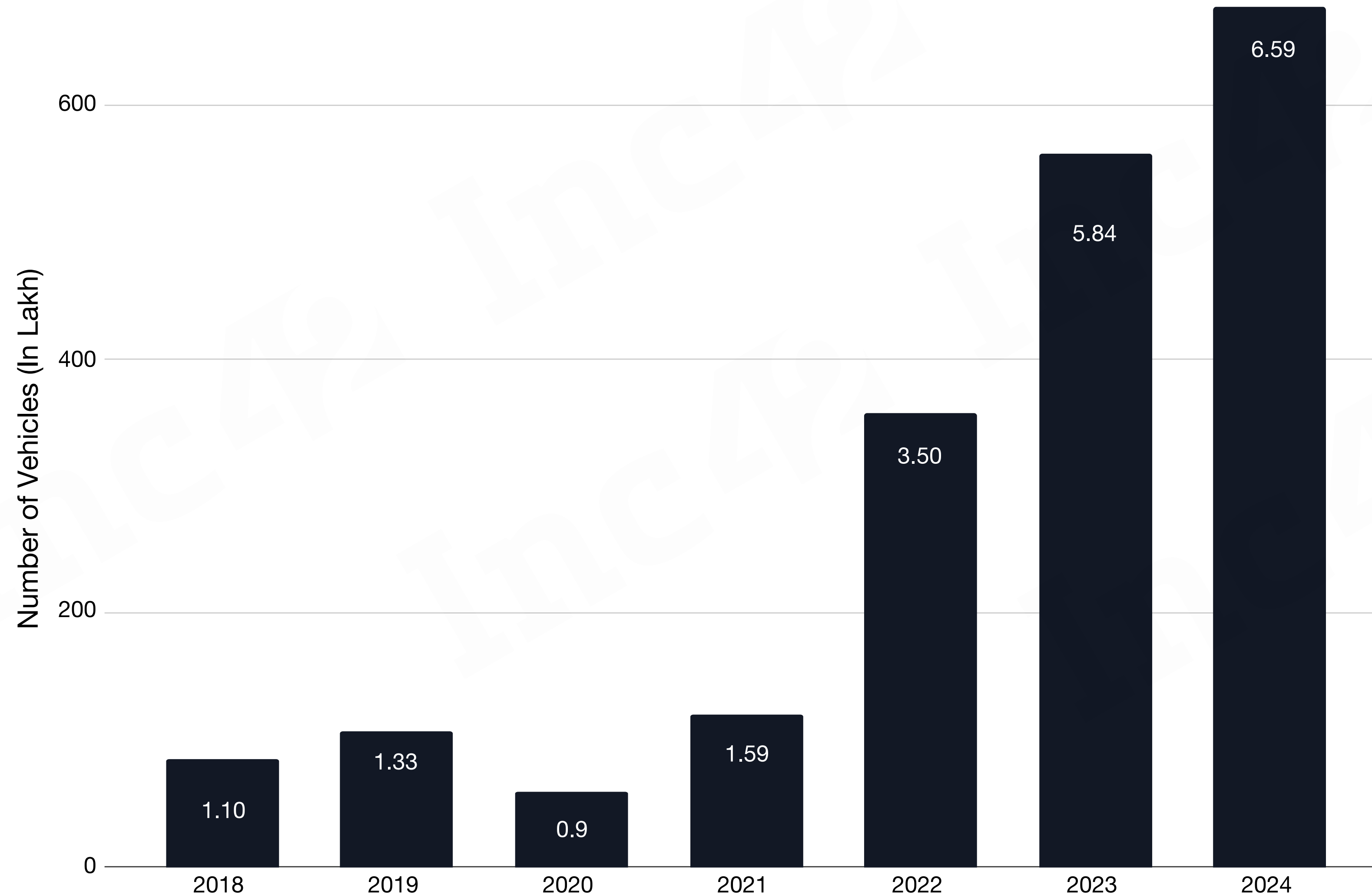
# India Records 2.8 Mn+ In EV 2-Wheeler Sales In 7 Years



Source: Vahan Dashboard

- ◆ The entry of major EV manufacturers into the market has further fuelled demand, offering consumers a wider range of options
- ◆ Tax benefits, such as reduced GST on EVs (from 12% to 5%), and incentives for developing EV charging infrastructure have lowered the cost barriers and encouraged adoption
- ◆ Growing awareness of environmental concerns and the advantages of EVs, such as lower running costs and reduced emissions, have further strengthened the shift towards electric two-wheelers
- ◆ Improvements in battery technology and increased driving range have significantly enhanced consumer confidence

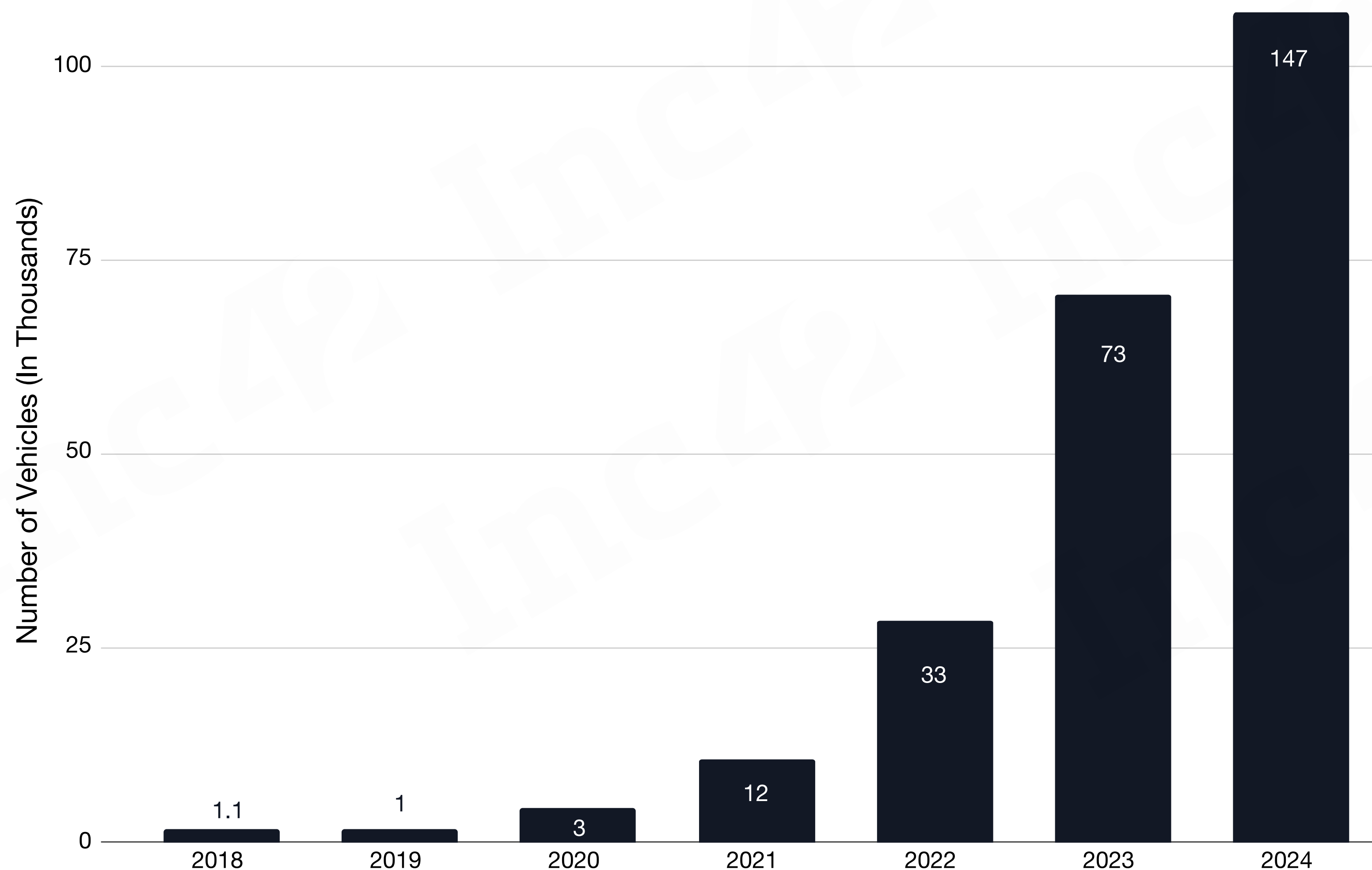
# Electric 3-Wheeler Sales Cross 6.5 Lakh+ In 2024



Source: Vahan Dashboard

- ◆ Electric 3-wheelers, particularly e-rickshaws, have gained traction as a cost-effective and eco-friendly solution for last-mile connectivity
- ◆ The entry of key players like Mahindra Electric and Euler Motors, alongside advancements in lithium-ion battery technology, has improved range and reduced charging times
- ◆ Additionally, investments in localised assembly and affordable EV financing have enabled these vehicles to penetrate untapped markets effectively






# Electric 4-Wheeler Sales Record An Uptick In 2024



Source: Vahan Dashboard









- ★ Tata Motors and MG Motor launched cost-effective models with improved range and features, making EV 4-wheelers more accessible to middle-class consumers
- ★ Massive investments in public and private EV charging networks by entities like Tata Power, ChargeGrid, and state governments supported longer-distance travel
- ★ Introduction of incentives for company fleets and ride-hailing services like Ola and Uber to adopt electric cars boosted demand in urban centers

# Powering The Electric Revolution: Major Producers For EV Batteries In India

	<ul style="list-style-type: none"> <li>✦ A battery manufacturer in India, providing a diverse array of batteries tailored for electric vehicles</li> <li>✦ It has partnered with Tata Motors, Mahindra and Mahindra to enhance the design, development and manufacturing lithium-ion batteries for EVs</li> </ul>
	<ul style="list-style-type: none"> <li>✦ It offers Li-ion cells, battery packs and charging solutions for light electric vehicles</li> <li>✦ The company has partnered with Piaggio and Ather Energy through strategic agreements to develop and supply advanced lithium-ion cells, including LFP and NMC, along with chargers for electric vehicles</li> </ul>
	<ul style="list-style-type: none"> <li>✦ It specialises in providing batteries tailored for electric vehicles known for their superior energy density, rapid charging capabilities, and extended lifespan</li> <li>✦ Partnered with Battery Smart enables fleet operators to utilise its extensive battery-swapping network, resulting in significant cost savings and improved operational efficiency</li> </ul>
	<ul style="list-style-type: none"> <li>✦ Specialises in designing and manufacturing EV components, including batteries, drive motors, and motor controllers</li> <li>✦ The company provides railway signaling solutions over the long development cycle in partnership with Indian Railways</li> </ul>
	<ul style="list-style-type: none"> <li>✦ It offers a range of advanced battery solutions tailored to meet the needs of electric vehicles, including two-wheelers, three-wheelers, and custom applications</li> <li>✦ The company acquired Emuron Technologies, it will help in leveraging their battery swapping technology alongside company's battery expertise</li> </ul>

Source: Media Coverage

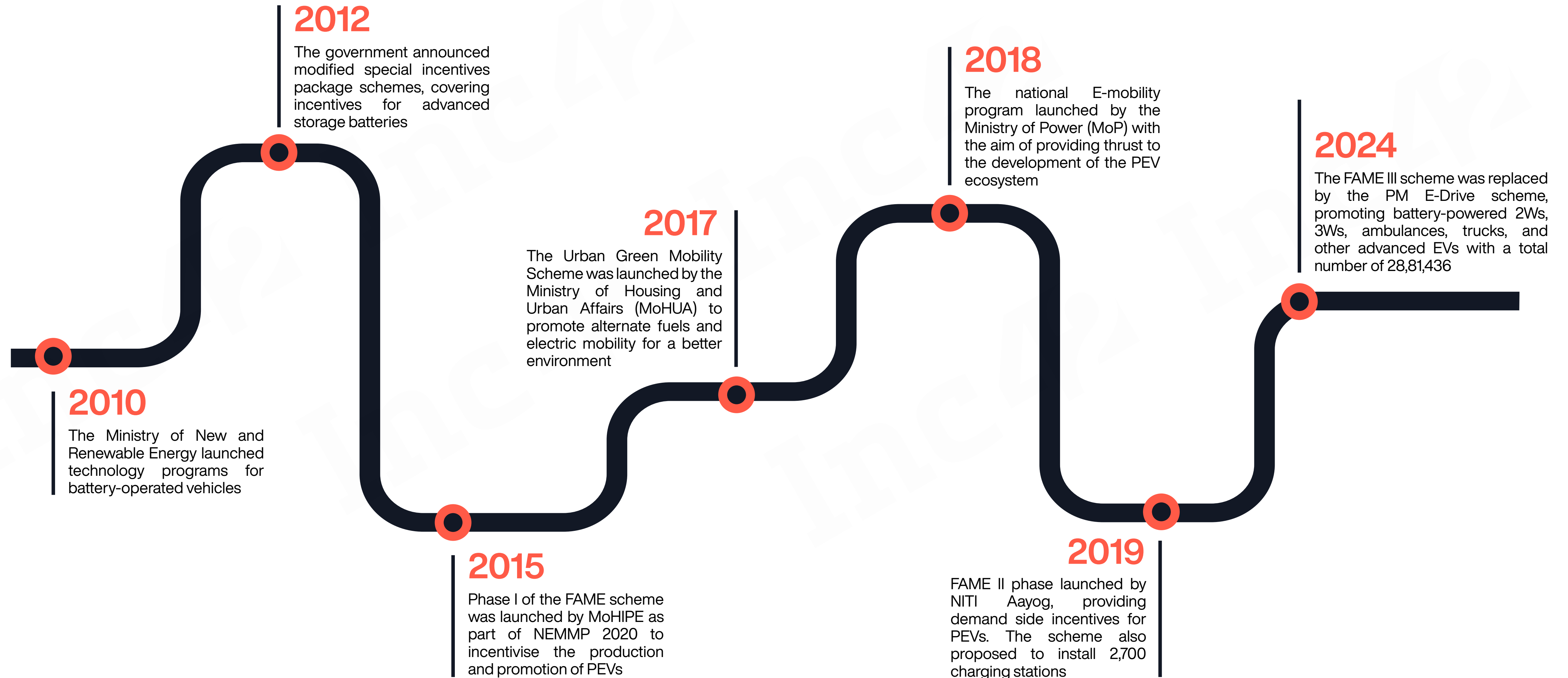
# Players Shaping India's EV Charging Infrastructure

Charging Provider	Vehicle Segments	Fixed Charging	Battery Swapping
 <b>Battery Smart</b>	2W/3W/4W	No	Yes
 <b>CHARGEZONE</b> <sup>®</sup>	2W/3W/4W	Yes	Yes
 <b>DELTA</b>	2W/3W/4W	Yes	No
 <b>EVtron</b>	2W/3W/4W	Yes	No
 <b>exicom</b>	2W/3W/4W	Yes	Yes
 <b>fortum</b>	2W/3W/4W	Yes	No
 <b>magenta</b>	2W/3W/4W	Yes	No
 <b>SUN MOBILITY</b>	2W/3W/4W	No	Yes

Source: Inc42,

Note: Companies have been placed alphabetically

# Government Initiatives Driving EV Revolution In India



Source: Inc42 Analysis

# Accelerating The Charge: The Rapid Growth Of EV Infrastructure In India

## FAME II for EV

- ✦ This phase primarily targets the electrification of public and shared transportation. It aims to provide demand incentives for 7,090 ebuses, 5 lakh e-3W, 55,000 e-4W passenger cars, and 10 lakh e-2W. Additionally, the scheme supports the development of charging infrastructure.
- ✦ The government provided a subsidy of INR 5,790 Cr to EV manufacturers under Phase II of the FAME India Scheme. This subsidy was granted for the sale of 13,41,459 electric vehicles during the scheme's implementation.
- ✦ The Ministry of Heavy Industries approved a capital subsidy of INR 800 Cr to three Oil Marketing Companies (OMCs) under the Ministry of Petroleum and Natural Gas (MoPNG) for setting up 7,432 EV charging stations.

## Electric Mobility Promotion Scheme

- ✦ A scheme with a budget of INR 778 Cr, is set to run for six months starting from April 1st 2024, until September 30th, 2024. This initiative offers incentives to purchasers of e-2W and e-3W.
- ✦ The scheme supports 3,72,215 EVs, comprising 3,33,387 e-2Ws, and 38,828 e-3Ws (including 13,590 rickshaws & e-carts and 25,238 e-3Ws in the L5 category), offering incentives exclusively for advanced battery-equipped vehicles.

## Supporting PM E-Drive

- ✦ The government has outlined a scheme to transition 8,00,000 diesel buses to environmentally friendly alternatives.
- ✦ The strategy involves substituting 8,00,000 diesel buses, comprising over one-third of all vehicles on roads, with electric ones within seven years.
- ✦ This endeavour seeks to diminish vehicular emissions and stimulate investments in the national electric vehicle infrastructure.



# Understanding FAME India: Transforming EV Adoption Through Subsidies

## FAME I

(2015-2019)

The Demand Incentive Disbursement Mechanism (DIDM) was used in this FAME scheme

The amount of government subsidy on electric vehicles for each vehicle category (pure electric, hybrid, etc.) was established based on technology and battery parameters

## FAME II

(2019-2024)

The FAME II e-vehicle subsidy was expected to cover 7,000 e-buses, 5 lakh electric 3-wheelers, 55,000 electric vehicles, and 10 lakh electric 2W

The incentive for 2W EVs was initially set at INR 10,000 per kWh which was increased by 50% to INR 15,000 per kWh.

## FAME III

(2024-2026)

Promote battery-powered 2Ws, 3Ws, ambulances, trucks, and other advanced EVs with a total number of 28,81,436

Total budget outlay of \$1.29 Bn for a period of over two years

**Replaced by the PM E-Drive scheme which was launched on October 1, 2024 till March 31, 2026**

# PM E-DRIVE Scheme: Accelerating India's EV Revolution

The PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) scheme, with a financial outlay of INR 10,900 Cr, came into effect on October 1, 2024, and will remain active until March 31, 2026. The initiative aims to accelerate EV adoption, enhance charging infrastructure, and strengthen the EV manufacturing ecosystem.

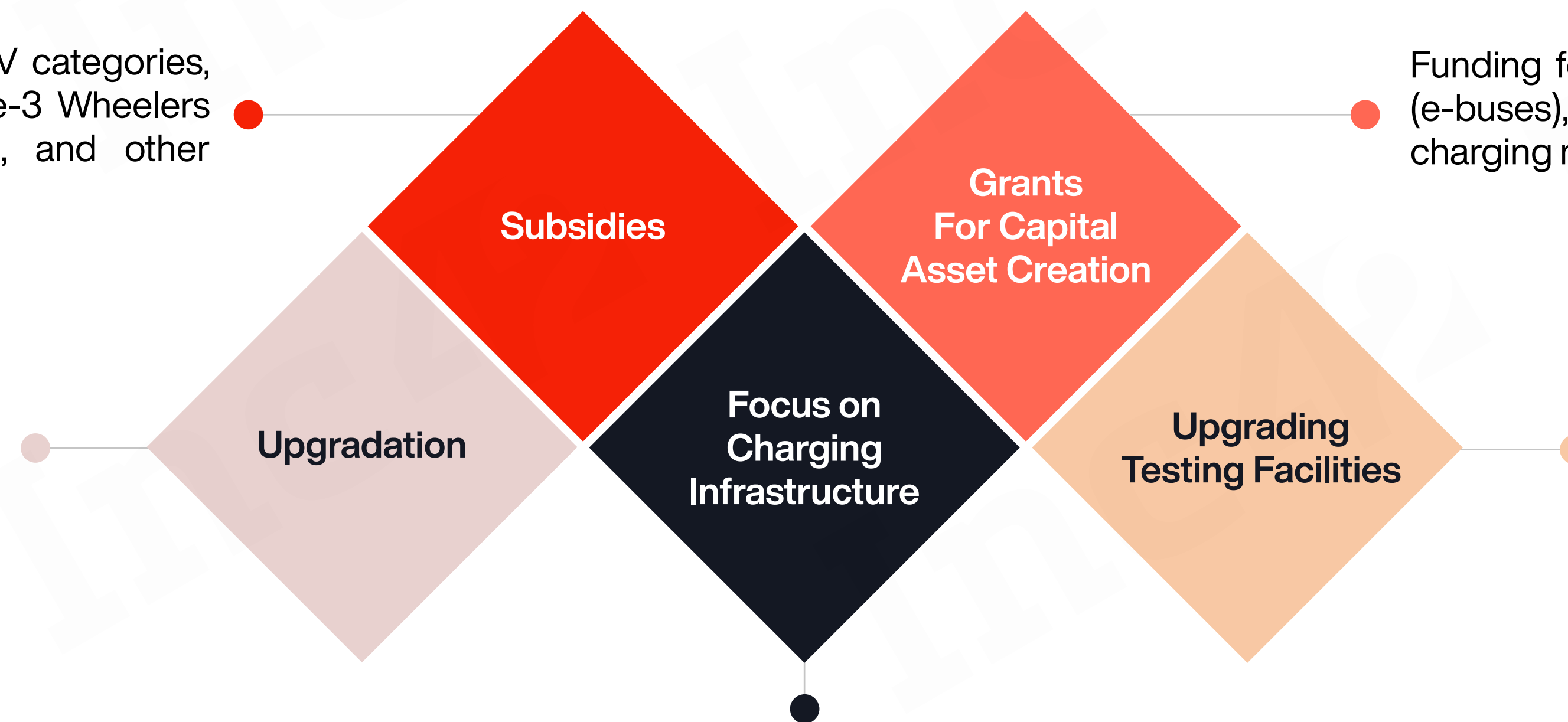
## Key Components of the PM E-DRIVE Scheme

Demand incentives for various EV categories, including e-2 Wheelers (e-2W), e-3 Wheelers (e-3W), e-ambulances, e-trucks, and other emerging EV types

Funding for the procurement of electric buses (e-buses), establishment of an extensive EV charging network.

Of testing facilities under the Ministry of Heavy Industries (MHI). Scheme Administration: Includes IEC (Information, Education & Communication) activities and fees for the project management agency (PMA).

To support green mobility, INR 780 Cr has been allocated to upgrade testing agencies under the Ministry of Heavy Industries (MHI). This modernisation will equip testing facilities with emerging technologies, enabling the development and certification of next-generation EVs.



These charging stations will focus on cities with high EV adoption and select highways to enhance range confidence and ease of use. A major thrust of the scheme is creating a robust public charging network with a total allocation of INR 2,000 Cr. The plan includes:

- ✦ 22,100 fast chargers for e-4 Wheelers (e-4Ws)
- ✦ 1,800 chargers for e-buses
- ✦ 48,400 chargers for e-2 Wheelers (e-2Ws) and e-3 Wheelers (e-3Ws)






# Key Statistics Defining PM E Drive Impact On EV Growth

Number of vehicles	Maximum number of vehicles	Total fund support from MHI (cr.)
e-2 wheelers	24,79,120	1,772
e-Rickshaws & e-cart	1,10,596	192
e-3 wheelers L5	2,05,392	715
e-ambulances	To be notified separately	500
e-trucks	To be notified separately	500
e-buses	14,028	4,391
EV PCS	72,300	2,000
Testing agencies upgradation	-	780
Admin expenses	-	50
<b>Total</b>	<b>28,81,436</b>	<b>10,900</b>

Source: MHI Data

Note: Government data published as on 09.10.2024

# State-Level Policies Shaping India's Electric Vehicle Revolution

States	EV Subsidy On Charging Infrastructure
 <b>Uttar Pradesh</b>	<ul style="list-style-type: none"> <li>★ 25% capital subsidy on fixed capital investment up to INR 6 lakhs for the first 100 stations</li> </ul>
 <b>Maharashtra</b>	<ul style="list-style-type: none"> <li>★ 60% for the first 15,000 slow public and semi-public charging stations up to INR 10,000</li> <li>★ 50% for the first 500 moderate and fast public and semi-public charging stations up to INR 5,00,000</li> </ul>
 <b>Karnataka</b>	<ul style="list-style-type: none"> <li>★ General Investment promotion subsidy: (a) Micro - 25% value of fixed assets (VFA) – up to INR 15 lakh</li> <li>★ DC chargers(<math>\geq</math>100V) 25% - 100 stations - INR 10 lakh</li> </ul>
 <b>Tamil Nadu</b>	<ul style="list-style-type: none"> <li>★ Small: Capital subsidy of the charging equipment/machinery up to INR 1.5 lakhs for the first 300 stations</li> <li>★ Medium: 25% capital subsidy of the charging equipment/machinery up to INR 2 lakhs for the first 100 stations</li> <li>★ Large: 25% capital subsidy of the charging equipment/machinery up to INR 10 lakhs for the first 100 stations</li> </ul>
 <b>Gujarat</b>	<ul style="list-style-type: none"> <li>★ 25% capital subsidy of the charging station equipment/machinery up to INR 10 lakhs for the first 250 commercial public EV charging stations</li> </ul>

Source: e-AMRIT - NITI Aayog Website

# Key Collaborations Driving EV Infrastructure Expansion In India

## Ather Energy & Karnataka Government Signed Memorandum of Understanding (MoU) [2022]

**Objective:** Set up 1,000 fast-charging stations across Karnataka.

- ✦ An MoU was signed between Ather Energy, the Karnataka Government, and the state's electric supply companies (ESCOMs).
- ✦ ESCOMs will act as the nodal agency, providing technical support, while government agencies will assist in identifying and sharing spaces for charging stations.
- ✦ Ather Energy will deliver services specifically for electric two-wheelers. MoU played a pivotal role in promoting electric mobility in the region, contributing to the state's sustainable transportation goals

## Hyundai Motor & IIT Delhi For EV Research In India [2024]

**Objective:** Advance research on NVH (noise, vibration, and harshness), battery technology, and alternative-energy-powered vehicles.

- ✦ Hyundai Motor India signed an MoU with IIT Delhi's Foundation for Innovation and Technology Transfer (FITT) and donated a Hyundai Kona EV for research purposes.
- ✦ IIT Delhi's Centre for Automotive Research and Tribology (CART) will focus on battery profiling in the Kona EV using external sensors and OBD connectors to analyse EV performance under varying driving conditions.

## MG Motor India & Tata Power Signed Memorandum of Understanding (MoU) [2020]

**Objective:** Deploy 50 kW DC superfast chargers at MG dealership locations across India.

- ✦ The partnership aims to create end-to-end EV charging solutions, with Tata Power installing and managing superfast chargers at MG Motor dealerships.
- ✦ These 50 kW DC chargers will cater to MG ZS EV customers as well as other EV owners with compatible charging standards.
- ✦ MG Motor will prioritise cities targeted for future EV expansions under this collaboration.
- ✦ This partnership has contributed to the expansion of India's EV charging network, promoting the adoption of electric mobility and supporting the country's transition towards sustainable transportation solutions

# Charging Ahead: Types Of Compatible Chargers For 2W, 3W, 4W EV Vehicles

Charging Station	Voltage (V)	Type of Vehicle	Type of Compatible Charger
Level 1 (AC)	240	4w,3w,2w	Type 1, Bharat AC-001
Level 1 (DC)	>=48	4w,3w,2w	Bharat DC-001
Level 2 (AC)	380-400	4w,3w,2w	Type 1, Type 2, GB/T, Bharat AC-001
Level 3 (AC)	200-1000	4w	Type 2
Level 3 (DC)	200-1000	4w	Type 2, CHAdeMO, CCS1, CCS2

Source: e-AMRIT - NITI Aayog website

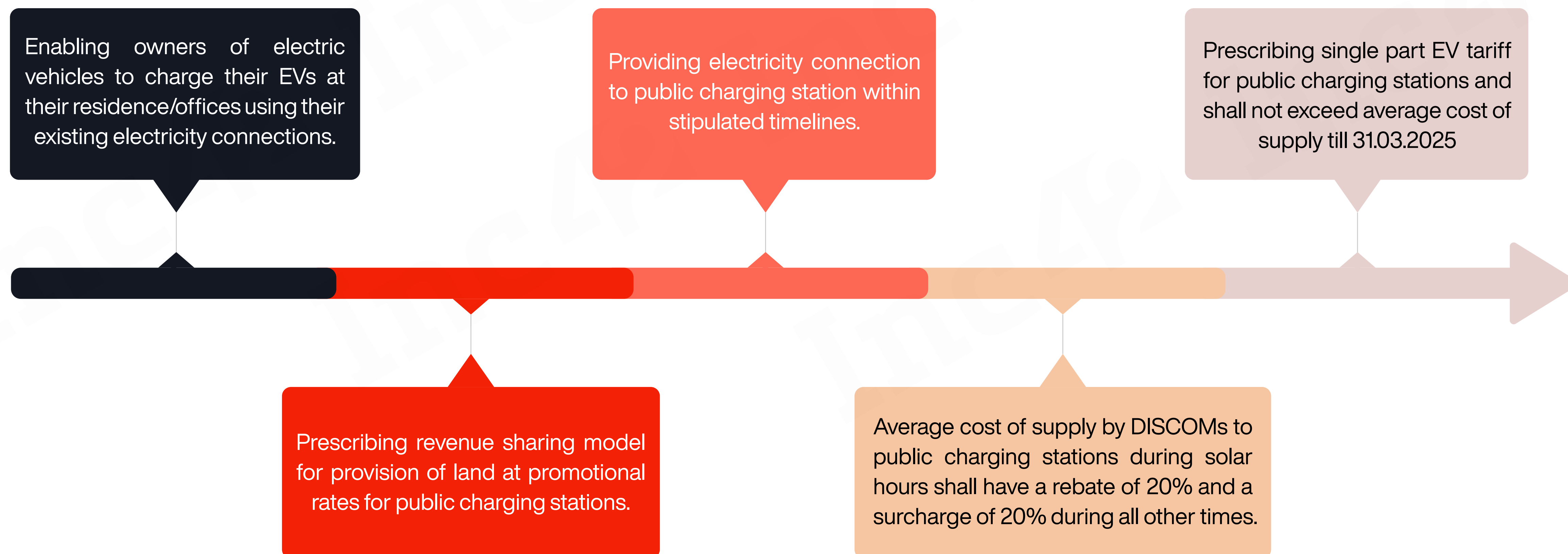
# Powering The Wheels: KW Requirements For Each Type Of EV Wheeler

Charging Station	Power (kW)	Type of Vehicle
Level 1 (AC)	$\leq 3.5$ kW	4w ,3w,2w
Level 1 (DC)	$\leq 15$ kW	4w ,3w,2w
Level 2 (AC)	$\leq 22$ kW	4w ,3w,2w
Level 3 (AC)	22 to 4.3 kW	4w
Level 3 (DC)	Up to 400 kW	4w

Source: e-AMRIT - NITI Aayog website






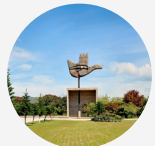


# Mapping The Growth Of EV Public Charging Stations In India









The Ministry of Heavy Industries (MHI) has been promoting Electric Vehicle. The FAME-II scheme inter-alia included financial support in the form of a subsidy for the setting up of public charging infrastructure to instill confidence among the EV users. The Ministry of Power has taken several initiatives to accelerate the deployment of public EV charging infrastructure in the country:





# Electric Highway: State-Wise Operational Public EV Charging Stations In India

State Name	No. of Operational PCS
 Andaman & Nicobar	3
 Andhra Pradesh	327
 Arunachal Pradesh	9
 Assam	86
 Bihar	124
 Chandigarh	12
 Chhattisgarh	149
 D&D and DNH	1


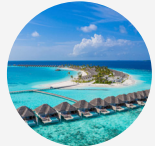



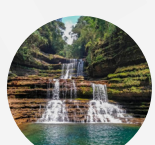

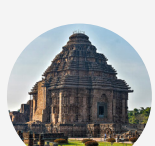

State Name	No. of Operational PCS
 Delhi	1,886
 Goa	113
 Gujarat	476
 Haryana	377
 Himachal Pradesh	44
 Jammu & Kashmir	47
 Jharkhand	135
 Karnataka	1,041


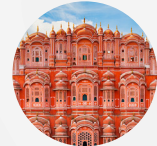





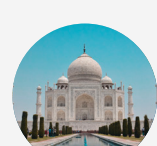

Source: Press Information Bureau

Note: Data of EV charging stations as on 02.02.2024| Total public charging stations 12,146

The states and UTs are sorted in alphabetical order.

# Electric Highway: State-Wise Operational Public EV Charging Stations In India

State Name	No. of Operational PCS
 Kerala	852
 Lakshadweep	1
 Madhya Pradesh	341
 Maharashtra	3,079
 Manipur	17
 Meghalaya	21
 Nagaland	6
 Odisha	198
 Pondicherry	23

State Name	No. of Operational PCS
 Punjab	158
 Rajasthan	500
 Sikkim	2
 Tamil Nadu	643
 Telangana	481
 Tripura	18
 Uttar Pradesh	582
 Uttarakhand	76
 West Bengal	318

Source: Press Information Bureau

Note: Data of EV charging stations as on 02.02.2024 | Total public charging stations 12,146

The states and UTs are sorted in alphabetical order.

# Deployment Of Charging Infrastructure In India: Magenta Mobility

## Charging Scalability

Focus for EV charging infrastructure should shift from public charging stations to residential and workplace charging solutions

Enhancing smaller, localised charging options like residential or office setups would better address the practical needs of EV users

## Uptime Of Charging Points

Key reasons for poor uptime include inadequate maintenance, lack of usage in certain areas, and technical failures

Addressing uptime challenges through regular upkeep, monitoring systems, and real-time updates can significantly enhance user trust and EV adoption

## Rural Vs. Urban Areas

Tier 2 and Tier 3 cities present unique opportunities for EV adoption compared to Tier 1 cities

Factors such as simpler infrastructure and fewer logistical challenges make these smaller cities more suitable for setting up EV charging infrastructure

The electric vehicle (EV) landscape in India has undergone a remarkable transformation since 2017, with public perception and adoption evolving significantly. Over time, the narrative has shifted from "What is an EV?" and "Should I consider an EV?" to "Why should I stick with an internal combustion engine (ICE) vehicle?" This reflects the growing confidence in EVs as the future of mobility

**- By Maxson Lewis (Founder of Magenta Mobility)**

# Deployment Of Charging Infrastructure In India: Charge Zone

## Energy Solutions

Enable real-time monitoring of EV charging stations, enhancing operational efficiency by providing instant updates on station availability and performance metrics

Real-time data insights ensures better maintenance, reduces downtime and maximizes the uptime of charging stations

## Smart App

Allowing users to monitor and control charging sessions, view station status, and access real-time updates directly from their smartphones

Navigating nearby charging stations, hassle-free payment options, and station booking capabilities, simplifying the EV charging process for users

## Charge Cloud

Platform which allows for the remote management, monitoring, and control of EV charging infrastructure through internet connectivity, ensuring streamlined operations

It provides real-time insights into charging station performance, enabling efficient troubleshooting and load optimization

EV adoption in India is driven by reduced battery costs and "battery as a service," making EVs cost-competitive with petrol vehicles. The importance of fast-charging infrastructure, particularly for inter-city buses and trucks, to accelerate the EV revolution in India  
**- By Kartikey Hariyani (Founder and CEO of Charge Zone)**

# Key Highlights: India's EV Startup Ecosystem

**\$3.7 Bn+** Raised By Indian EV Startups Since 2014

---

**\$2.2 Bn+** Startup Funding In Unicorns

---

**\$864 Mn+** Startup Funding In Soonicorns

---

**\$2 Bn+** Funding Raised By Late Stage Startups

---

**Bengaluru** Emerged The Most Indian Funded Startup Since 2014

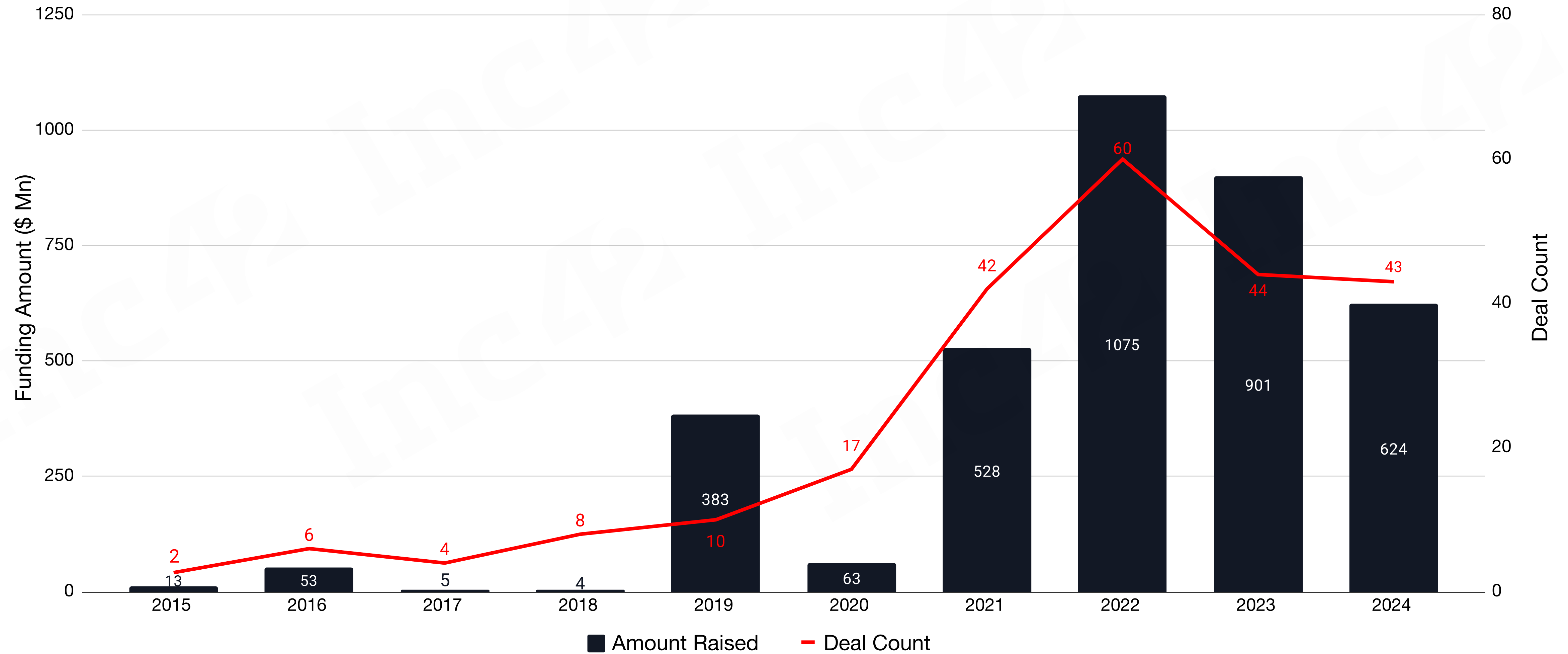
---

**350+** Total Active Investors



# \$3.7 Bn+ Raised By Indian EV Startups Since 2014

Ola Electric, Ather Energy, and Smartron account for 43% of total funding among EV startups



Source: Inc42

Note: Blusmart and Zypp Electric funding not included in above graph




# After Steady Growth, EV Funding Ticket Sizes Drop 38% In 2024 YoY Basis

Year	Average Ticket Size
2020	\$8 Mn
2021	\$16 Mn
2022	\$21 Mn
2023	\$24 Mn
2024	\$15 Mn

Source: Inc42

Note: Blusmart and Zypp Electric funding not included in above graph

# EV Funding In India: Stagewise Outlook

Investment Stage	Funding Amount	Deal Count	Median Ticket Size
 <b>Seed Stage</b>	\$198 Mn+	93+	\$ 1 Mn
 <b>Growth Stage</b>	\$1.2 Bn+	78+	\$ 9 Mn
 <b>Late Stage</b>	\$2 Bn+	31+	\$ 50 Mn

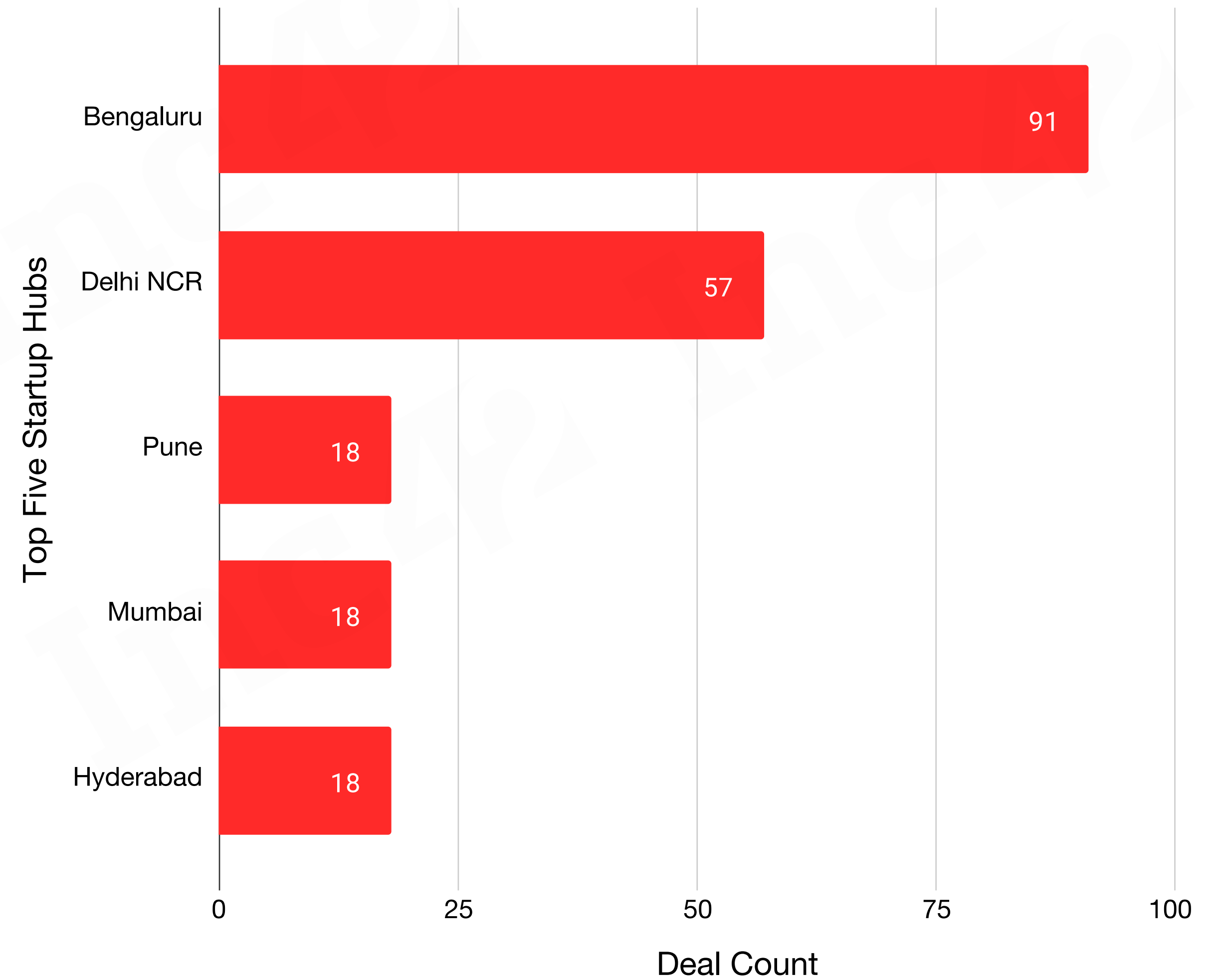
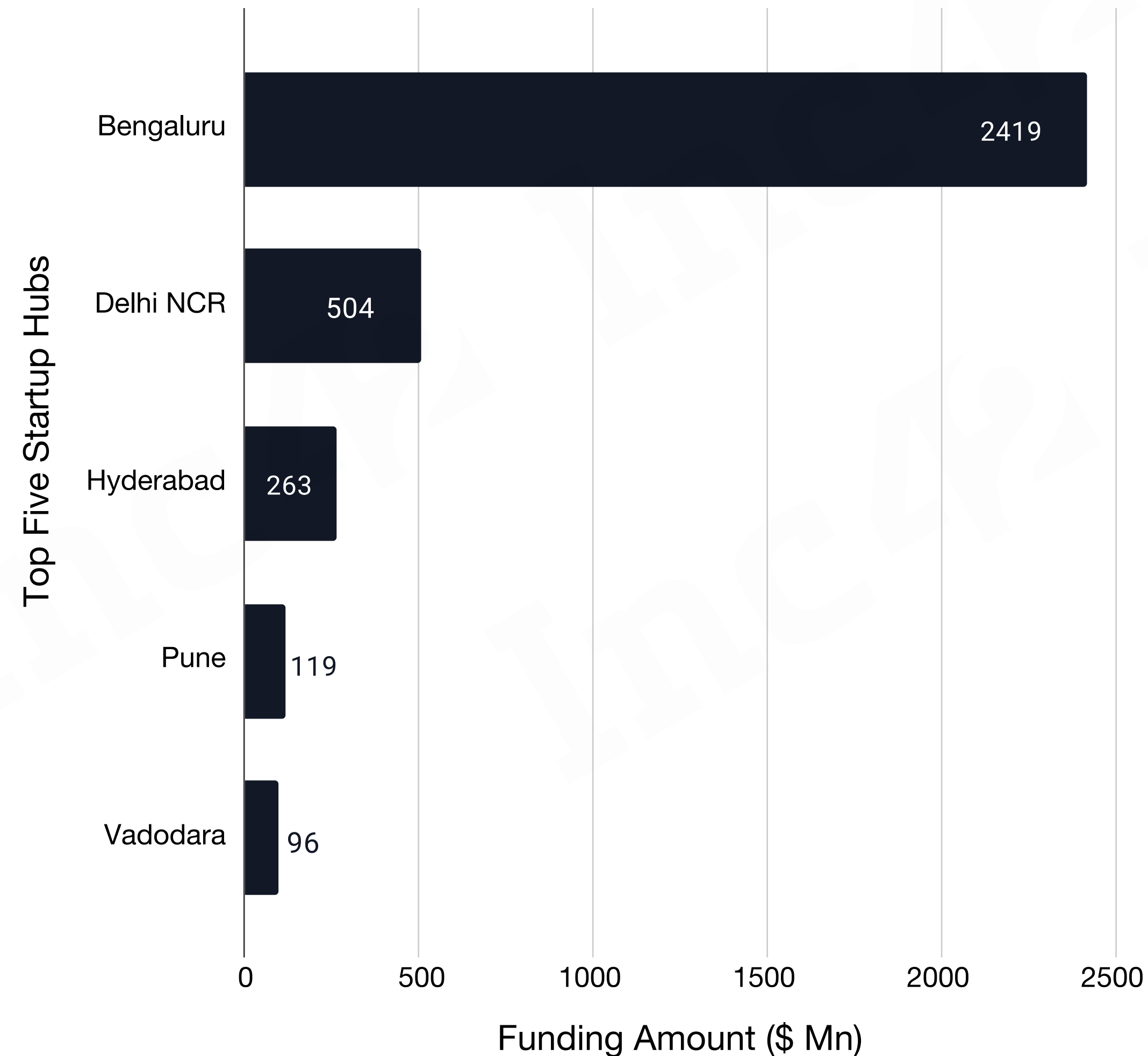
Source: Inc42

Note: Blusmart and Zypp Electric funding not included in above chart



# Bengaluru Emerged As The Most Funded Indian Startup Hub For EV Startups

From 2014 to 2024, Bengaluru recorded the highest deal count, accounting for 38% of the total deals across all cities

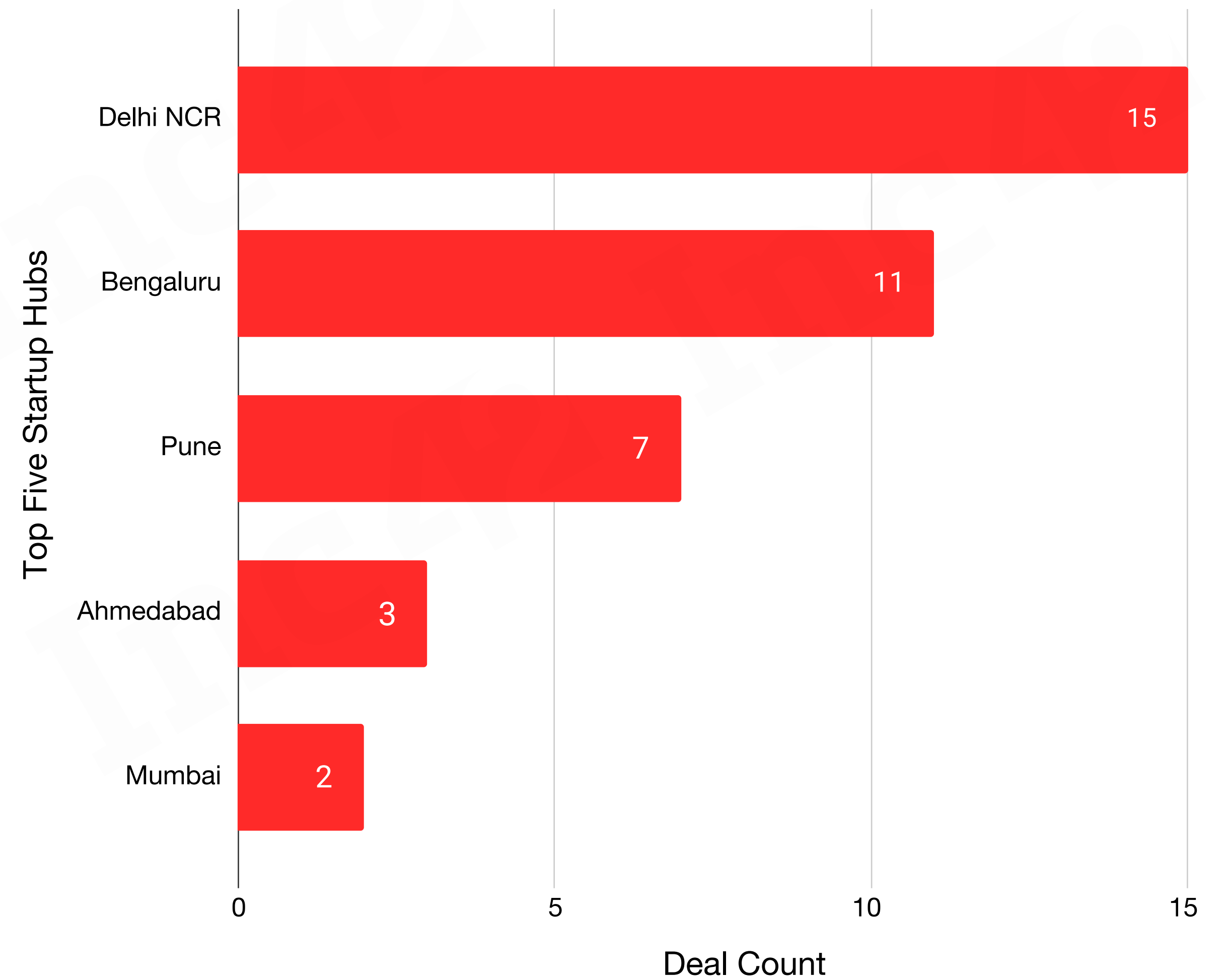
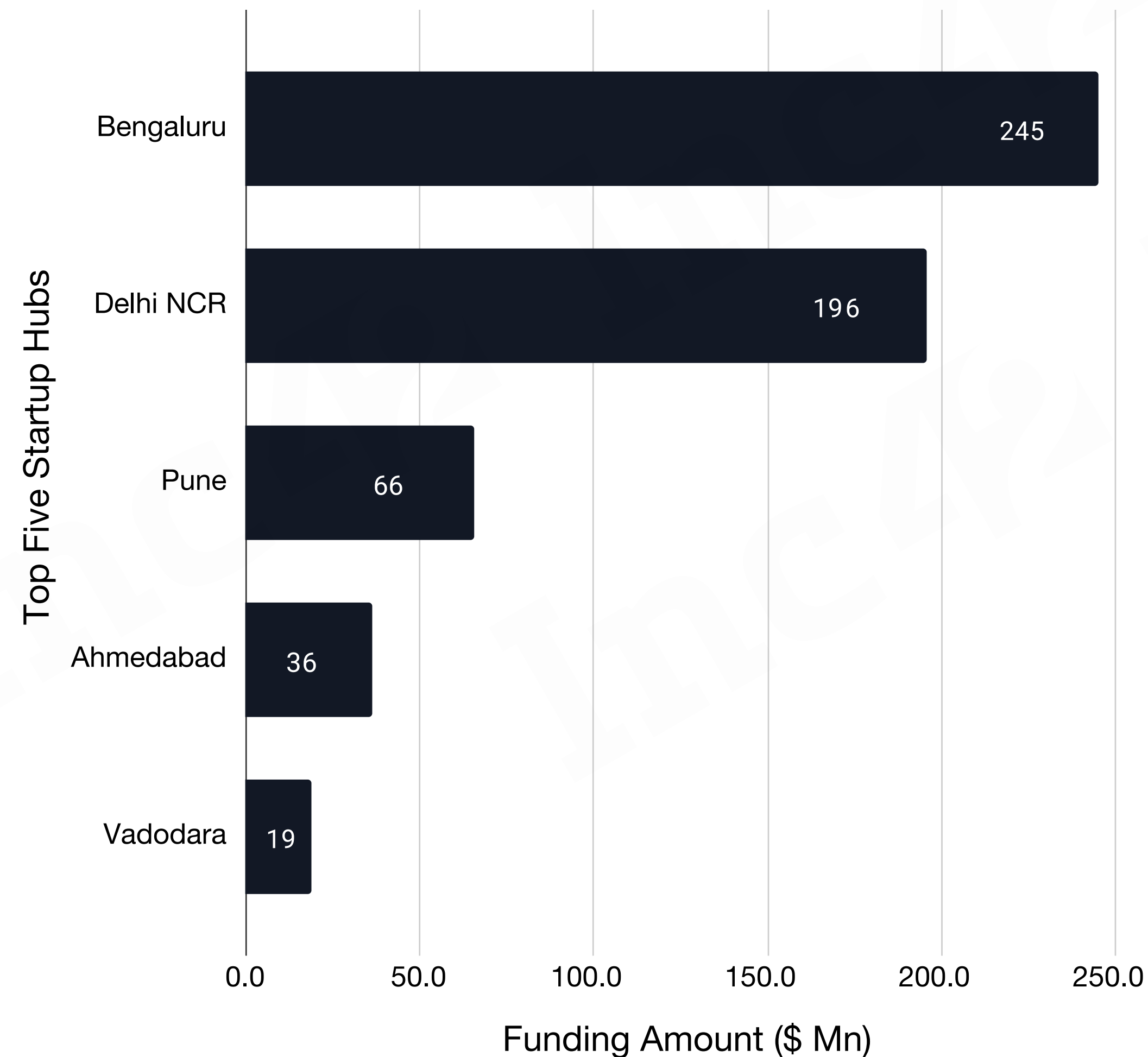


Source: Inc42

Note: Blusmart and Zypp Electric funding not included in above chart

# Bengaluru: Most Funded Indian Startup Hub For EV Startups In 2024











In 2024, Delhi NCR recorded the highest deal count, accounting for 35% of the total deals across all cities



Source: Inc42

Note: Blusmart and Zypp Electric funding not included in above chart

# India's Top 10 EV Investments From 2014 To 2024

Startup Name	Funding Stage	Round Size	Notable Investors
 OLA ELECTRIC	Late Stage	\$384 Mn	Temasek Holdings,Sbi
 smartron	Growth Stage	\$200 Mn	The Global Emerging Markets Group
 ATHER	Late Stage	\$128 Mn	NIIF
 yulu	Growth Stage	\$82 Mn	Magna International, Bajaj Auto Finance
 Battery Smart	Growth Stage	\$65 Mn	LeapFrog Investments
 EULER	Growth Stage	\$60 Mn	Moglix,Blume Ventures, GIC, ADB Ventures, Athera Venture Partners
 CHARGE ZONE®	Growth Stage	\$54 Mn	BlueOrchard Finance S A
 LOHUM	Growth Stage	\$54 Mn	Singularity Ventures, Baring Private Equity Partners India
 River	Growth Stage	\$40 Mn	InCred, Oxyzo, Western Capital, Unity Small Finance Bank
 LOG	Growth Stage	\$40 Mn	AI Futtaim Group, Lowercarbon Capital, Toyota Ventures,Maniv Mobility

Source: Inc42

Note: Only deals recorded in Inc42's database between 2014 to 2024 are considered for this analysis

# Top Five Most Funded Indian EV Startups

Name	Founding Year	Total Funding	Key Investors	Key Offerings
 <b>OLA ELECTRIC</b>	2017	1.3 Bn+	Tiger Global Management, Matrix Partners, SoftBank	Electric Scooters, Hypercharging Network
 <b>ATHER</b>	2013	574 Mn+	Tiger Global Management, NIIF, Hero Motocorp	Electric Scooters, Battery Technology & Energy Solutions
 <b>smartron</b>	2014	225 Mn+	Global Emerging Markets Group	Electric Vehicles & Mobility Solutions, AI & IoT-Enabled Smart Devices
 <b>Battery Smart</b>	2019	139 Mn+	Tiger Global Management, Blume Ventures, Orios Ventures	Battery Swapping Solutions, Fleet & Commercial EV Solutions
 <b>yulu</b>	2017	123 Mn+	Blume Ventures, 3one4 Capital, Magna International	Battery Swapping, Delivery Fleet Solution, Electric Mobility Solution

Source: Inc42

Note: This is not an exhaustive list

# Notable Investors Backing Indian EV Startup

Investor	Deal Count	Notable Investments
 3ONE4 CAPITAL	5	Exponent Energy, The ePlane Company
 ADB VENTURES	4	Euler Motors, Electrifi Mobility
 advantedge FOUNDERS	5	ElecTorq, Exponent Energy, Baaz Bikes
 ah! ventures	3	Starya Mobility, Evez
 ANICUT	6	Chargeup, The ePlane Company
 AVAANA	4	Ninety One, Turno, Kazam
 BAJAJ FINANCE LTD - AF	4	Yulu
 BlueHill capital	3	Plugmart, Raptee Energy, AutoNxt Automation
 BLUME	15	Euler Motors, Battery Smart, ElectricPe
 British International Investment	4	Battery Smart, Euler Motors, Charge+Zone


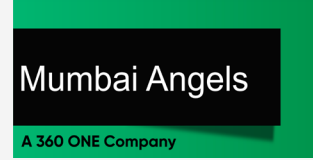







Source: Inc42

Note: This is not an exhaustive list | Investors have been placed alphabetically | Only deals recorded in Inc42's database between 2014 to 2024 are considered for this analysis

Investor	Deal Count	Notable Investments
 CAPITAL-A	3	Chargeup, Oorja Development Solutions
 ClimateAngels	4	Sheru, Matter, Clean Electric
 Endiya	4	Cygni Energy, Cell Propulsion
 Uhaad	3	Battery Smart, Bluwheelz
 GIC	3	Euler Motors, Ather Energy
 GREEN FRONTIER CAPITAL	5	Battery Smart, ElectricPe, Euler Motors, EMotorad
 grow	5	RACEnergy, Cell Propulsion
 Hero	4	Ather Energy
 JAVA CAPITAL	4	The ePlane Company, Oorja Development Solutions
 Letsventure	4	EMotorad, BluWheelz

Source: Inc42

Note: This is not an exhaustive list | Investors have been placed alphabetically | Only deals recorded in Inc42's database between 2014 to 2024 are considered for this analysis

Investor	Deal Count	Notable Investments
 micelio The Network That Drives You	9	ElectricPe, RACEnergy
 Mumbai Angels A 360 ONE Company	3	Gegadyne, Charge+Zone, Oben Electric
 QRG	3	Euler Motors
 SPECIAL INVEST	5	The ePlane Company, e-TRNL Energy
 Stellaris VENTURE PARTNERS	3	Turno
 TIGERGLOBAL	5	Battery Smart, Ather Energy
 TOYOTA VENTURES	3	River
 Venture Catalysts++ India's 1 <sup>st</sup> Multi-Stage VC	7	Charge+Zone, ION Energy
 WeFounderCircle Funding   Business   Community	3	Evify, Oben Electric, Kazam
 YOUR NEST VENTURE CAPITAL	4	Exponent Energy, ION Energy

Source: Inc42

Note: This is not an exhaustive list | Investors have been placed alphabetically | Only deals recorded in Inc42's database between 2014 to 2024 are considered for this analysis

# Accelerating EV Adoption In Rural India: A Comparative Analysis Of 2W, 3W,4W



## 2 Wheeler

- ✦ Subsidies under FAME II, state-level incentives, and low-interest EV financing schemes are helping rural buyers transition to electric two-wheelers
- ✦ Rural India already accounts for 55% of two-wheeler sales nationwide, with a 13% year-on-year increase



## 3 Wheeler

- ✦ 3W are increasingly used for agricultural transport, delivery services, and rural mobility, reducing dependence on expensive fossil fuels and creating new livelihoods opportunities
- ✦ Subsidies under FAME II, GST reduction, state-level policies, and low-interest financing schemes are driving affordability for small business owners and fleet operators



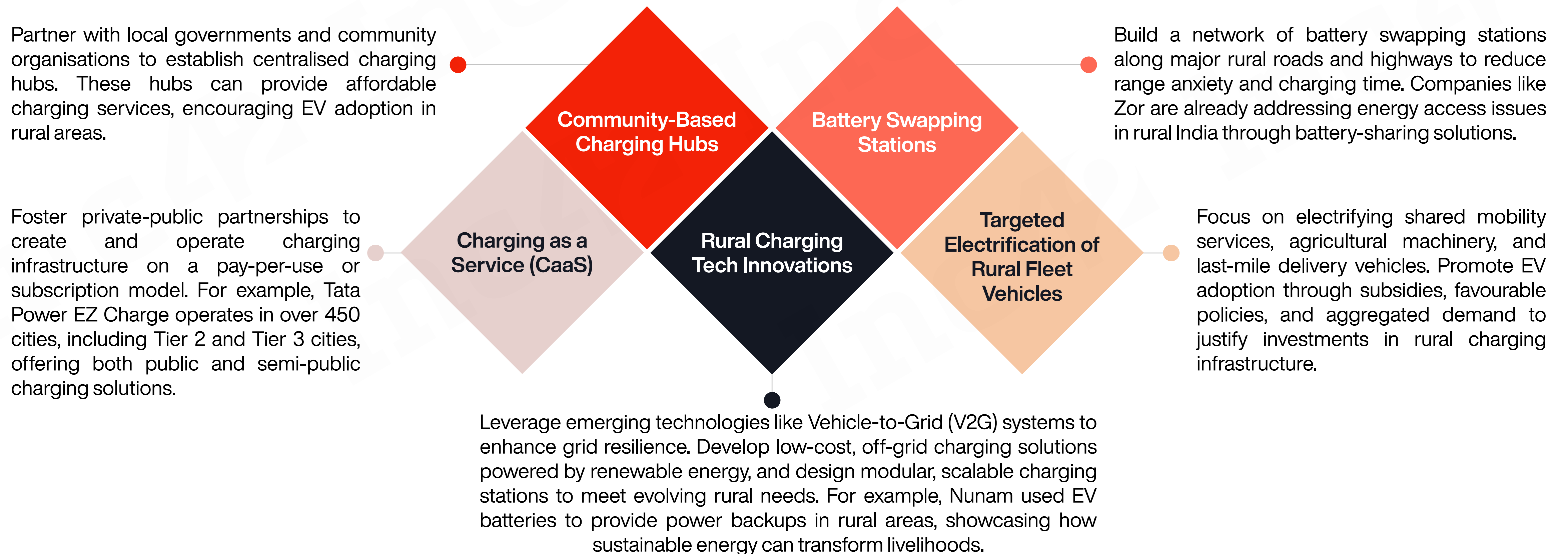
## 4 Wheeler

- ✦ 4W face slow adoption in rural areas due to their high purchase price. Despite government incentives, affordability remains a key barrier compared to traditional fuel-based vehicles
- ✦ While personal EV adoption remains low, electric 4W are gaining traction in commercial segments like fleet services, agricultural transport, and government use for last-mile mobility solutions



# Electrifying Rural India: Opportunities For EV Charging Solutions In Underserved Regions

The expansion of EV charging infrastructure in rural and remote areas remains a critical challenge for developing countries like India. Here are a few strategies and opportunities for enhancing EV charging solutions in underserved rural regions:



# Challenges In Developing EV Charging Infrastructure In Rural India

India's ambitious electric vehicle (EV) goals hinge on one crucial factor, which is a robust and evenly distributed charging infrastructure. Here's a closer look at some major hurdles for a fully charged future:

## High costs, low returns

Setting up charging stations, especially fast-charging ones, requires significant investments. Land acquisition, equipment installation, and grid upgrades add to the costs. This can become a roadblock for private players to scale.

## Patchy distribution, range anxiety

Most charging stations are clustered in urban centres, leaving rural areas and highways bereft of charging options. This creates range anxiety for potential EV buyers, limiting travel choices.

## Lack of awareness

Public awareness about EV charging options and their benefits remain limited. Addressing knowledge gaps through awareness campaigns and accessible information can encourage wider adoption, leading to a greater demand for charging infrastructure.

## Lack of consistency in standards

The lack of consistent charging standards across manufacturers and regions adds to the confusion. Incompatible plugs and communication protocols can leave drivers stranded with depleted batteries. Clear, unified standards are essential to ensure seamless charging experiences.

## Uptime of charging infrastructure

There are 12,146 charging stations in India located in different states. However, there are only some of them that are operative, which leads to a big challenge for the EV users.

# India's EV Landscape Of Unicorns and Soonicorns

**2**  
Total Unicorns  
**\$7.3 Bn+**  
Combined Valuation  
**\$2.2 Bn+**  
Total Funding



**ATHER**  
**OLA ELECTRIC**

**BatterySmart** **ZYPP**  
**LOHUM** **BluSmart**

**4**  
Total Soonicorns  
**\$1.4 Bn+**  
Combined Valuation  
**\$864 Mn+**  
Total Funding

Source: Inc42 Analysis

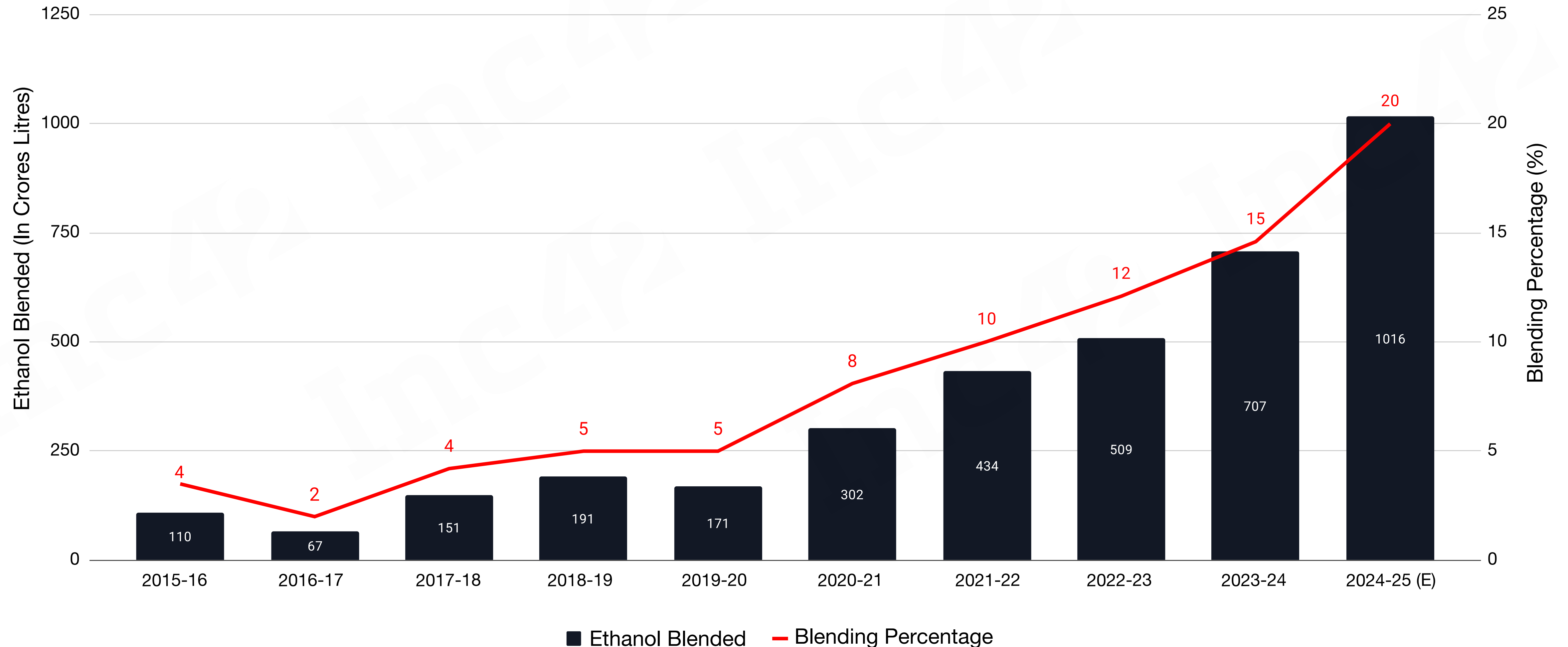
Note: The list includes Indian startups that have achieved unicorn status, having been valued at over \$1 Bn during their business journey.

# Ethanol And EV: A Dual Approach To Power India's Clean Energy Vision



# Ethanol Blending With Petrol: A Key To Sustainable Energy

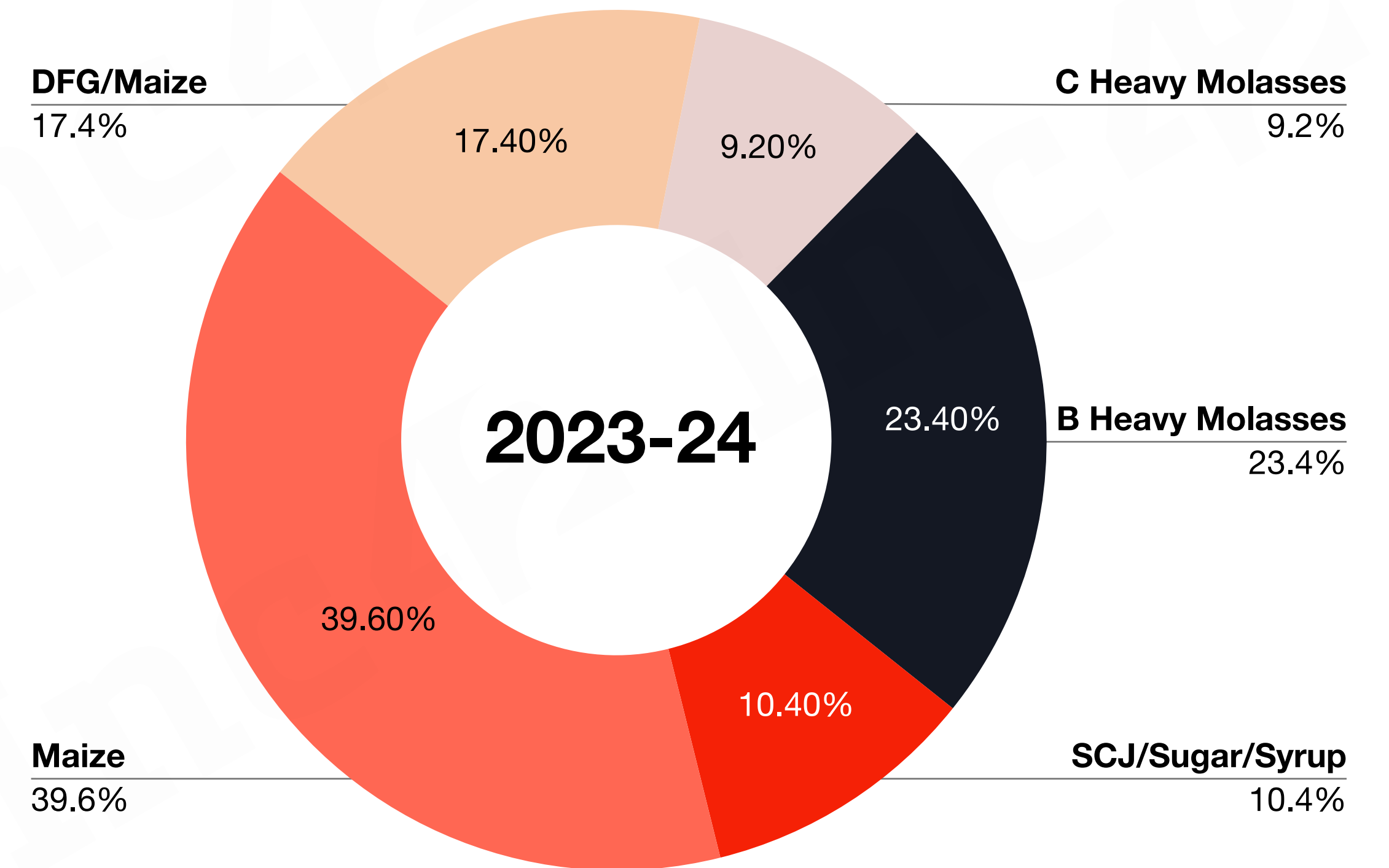
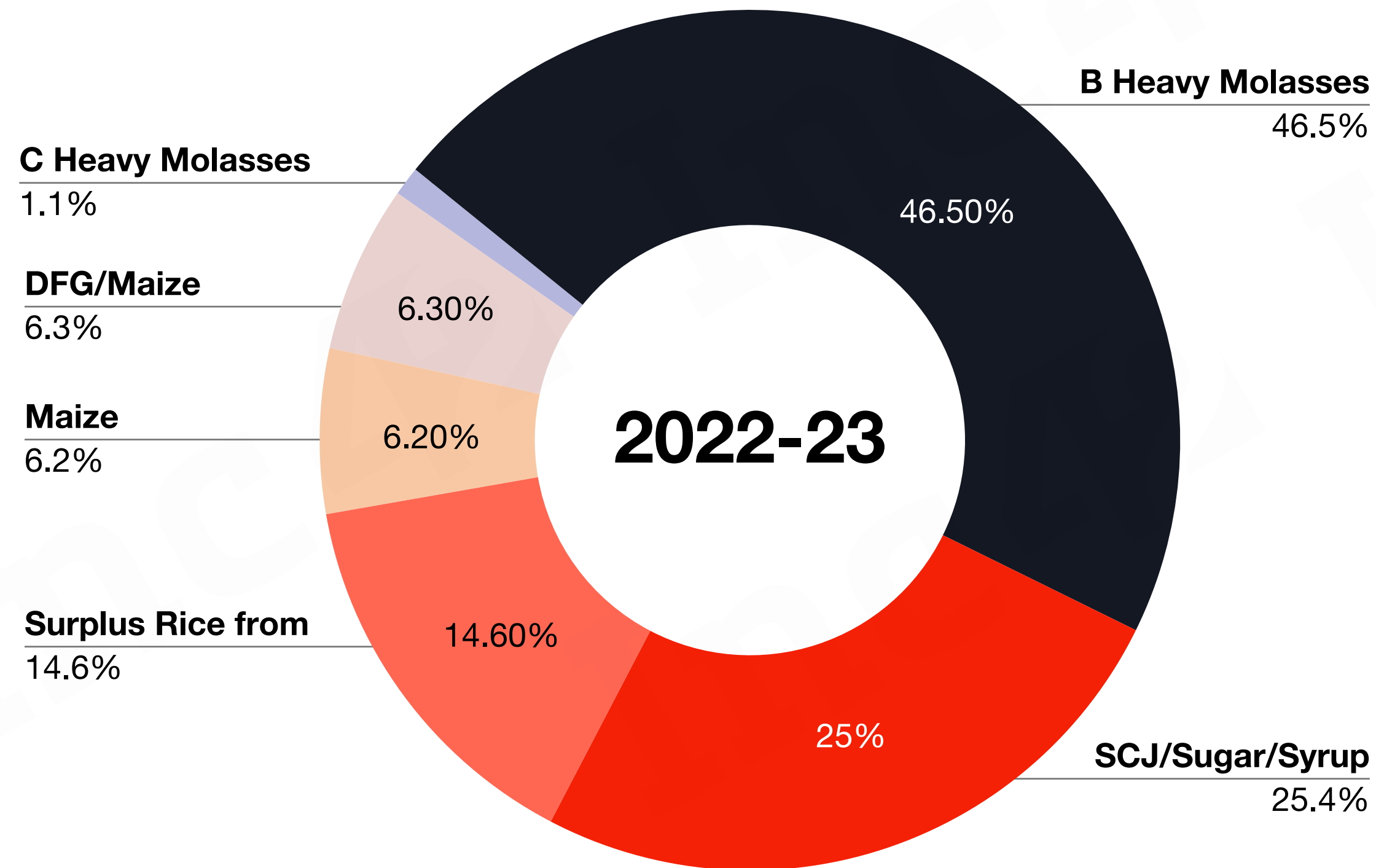
Government of India set a target of 20% ethanol blending with petrol by 2025



Source: PIB

Note: Blending percentage of 20% by 2025 is target set by Government of India

# Ethanol Production From Various Feedstocks: A Breakdown Of Contributions



Source: Indian Climate & Energy Dashboard

# India's Ethanol Boom: Global Lessons & The Road Ahead

Ethanol is considered an alternative to electric vehicles (EVs) in India due to the following factors:

## Abundance and Renewable Nature

Ethanol is derived from agricultural produce such as sugarcane and corn, which are abundantly grown in India. For context, Ethanol production capacity increased more than 2.5 times and number of distilleries increased by 66% in 8 years.

## Government Policies and Support

The Indian government has introduced initiatives like Ethanol Blending Program (EBP) and aims to achieve 20% ethanol blending in petrol by 2025. This policy promotes the use of ethanol as a cleaner fuel alternative to reduce reliance on fossil fuels.

## Lower Transition Costs

Unlike EVs, vehicles compatible with ethanol blends (like flex-fuel engines) do not require a complete overhaul of existing infrastructure. Ethanol-blended fuel can be used in conventional internal combustion engine vehicles with minor modifications, making it an economical option for adoption.

## Environmental Benefits

Ethanol burns cleaner than traditional fossil fuels, reducing greenhouse gas emissions and air pollution. While EVs are also eco-friendly, the production of EV batteries has their own environmental impact, which ethanol avoids.

## Quick Deployment

The production and distribution network for Ethanol can be established faster than EV charging infrastructure, especially in rural areas where EV charging stations are limited.

# India's Ethanol Landscape With Global Trends: Current Scenario And Future Insights

## Global

---

- ✦ According to the US Department of Energy, bioethanol has the potential to reduce 40% and is 20-30% more economical than crude based oil fuels with zero carbon emissions.
- ✦ Countries with vehicle engines running on 100 percent bioethanol (E100). For instance, Brazil (E20 to E100), the US (E85), and Sweden (E85) are ethanol flex-fuel vehicle markets.
- ✦ Brazil and US manufacture Ethanol from sugarcane and corn while Sweden import most of the bioethanol from Brazil and other countries.

## India

---

- ✦ The Government of India has set a target of 20% blending of Ethanol with petrol by 2025.
- ✦ Government initiatives encouraged several oil and gas majors to invest INR 14,000 crore to set up 2G bioethanol refinery plants in India from cellulosic and lignocellulosic biomass, including petrochemical routes. These initiatives are expected to increase bioethanol production in the country.
- ✦ Several component manufacturers are also working on developing vehicles capable of adapting to higher percentages of blended ethanol. These efforts are expected to become India the third largest ethanol market globally, following US and Brazil by 2026



# Methodology

Since 2015, Inc42 has been go to source for identifying Indian startups transforming industries and shaping society.

“**India’s Electric Vehicle Startup Landscape Report, 2025**” represents Inc42’s dedicated effort to map and understand the evolution of the Indian startup ecosystem from 2014 to the present day.

## Key Details of the Report:

- Overall data spans from June 2014 to 2024, unless specified otherwise.
- Startup Stages:
  - ✦ Seed Stage: Startups at the angel or seed funding stage.
  - ✦ Growth Stage: Startups at Series A and Series B funding stages.
  - ✦ Late Stage: Startups at Series C funding or above.
- Unicorns & Soonicorns:
  - ✦ Unicorns: Any digital/tech company valued at or above \$1 Bn or that has reached this valuation during its lifecycle.
  - ✦ Soonicorns: Any public or private digital/tech company valued at or above \$200 Mn.
- The market size for the Indian EV industry is determined based on projected revenue for 2030, factoring in the growth of 2W, 3W, and 4W segments.
- Database enrichments and corrections are done regularly. This may lead to slight variations in funding-related data compared to previously released reports.
- Ethanol as an alternative to EVs in India is gaining traction. Its petrol penetration stands at 12% in 2024 and is forecasted to reach 20% by 2025, with increasing compatibility for passenger vehicles expected in the coming years.



[www.inc42.com](http://www.inc42.com)

Inc42 is India's largest tech media & information platform on a mission to build & serve India's tech, startup & internet economy.

From breaking the latest news to discovering the hottest startups, from spotting upcoming trends to simplifying complex concepts, we cover everything tech in India's internet economy.

Born in January 2015, Inc42 has become the leading source for news & analysis on India's rapidly growing tech, startup & internet economy. Inc42, with over 40,000+ published stories, 100+ research reports, 120+ conferences & events & having featured 1000s of entrepreneurs, now reaches over 25 Mn+ tech leaders & professionals every month.

**Contact: [editor@inc42.com](mailto:editor@inc42.com)**

# CREDITS

## **ANALYST**

**SIDDHANT UTTAM**

---

## **ART DIRECTOR**

**SABITH**

---

## **DESIGNER**

**ANUSHKA SHARMA**

## **ADDRESS**

Inc42 Media, 59/16, 4th Floor, Jujhar Tower,  
RD Marg, Kalkaji, New Delhi, Delhi 110019

# DISCLAIMER

The data provided in this report has been obtained from public and private sources. We have made every attempt to ensure that the information presented in this report is accurate and free from any discrepancies. Ideope Media Pvt Ltd, the parent company of Inc42 Media and Inc42 DataLabs, is not responsible for any inaccuracy in the information presented or for any damages caused by the use of information provided in this report. In case of any discrepancy or errors in the data, you can contact us at [editor@inc42.com](mailto:editor@inc42.com) and we will try our best to update the information in the digital version of the report. We are constantly updating our database of startups due to new person using or relying on any information in this publication.

This report has been prepared in good faith on the basis of information available at the date of publication without any independent verification. Ideope Media Pvt. Ltd. does not guarantee the accuracy, reliability or completeness of the information in this publication. Readers are responsible for assessing the relevance and accuracy of the content of this publication. While this report talks about various individuals and institutions, Ideope Media Pvt. Ltd. will not be liable for any loss, damage, cost or expense incurred or arising by reason of anyone using or relying on any information in this publication.

This document makes descriptive reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by Ideope Media Pvt Ltd and is not intended to represent or imply the existence of an association between Ideope Media Pvt Ltd and the lawful owners of such trademarks. Information regarding third-party products, services and organisations was obtained from publicly available sources, and Ideope Media Pvt. Ltd. cannot confirm the accuracy or reliability of such sources or information. Its inclusion does not imply an endorsement by or of any third party. The views and opinions in this report should not be viewed as professional advice with respect to your business.

