

Automobile Industry

August
2023

SECTOR IN FOCUS

Primus Partners Analysis
Deciphering Global Automobile Taxes & EV Incentives

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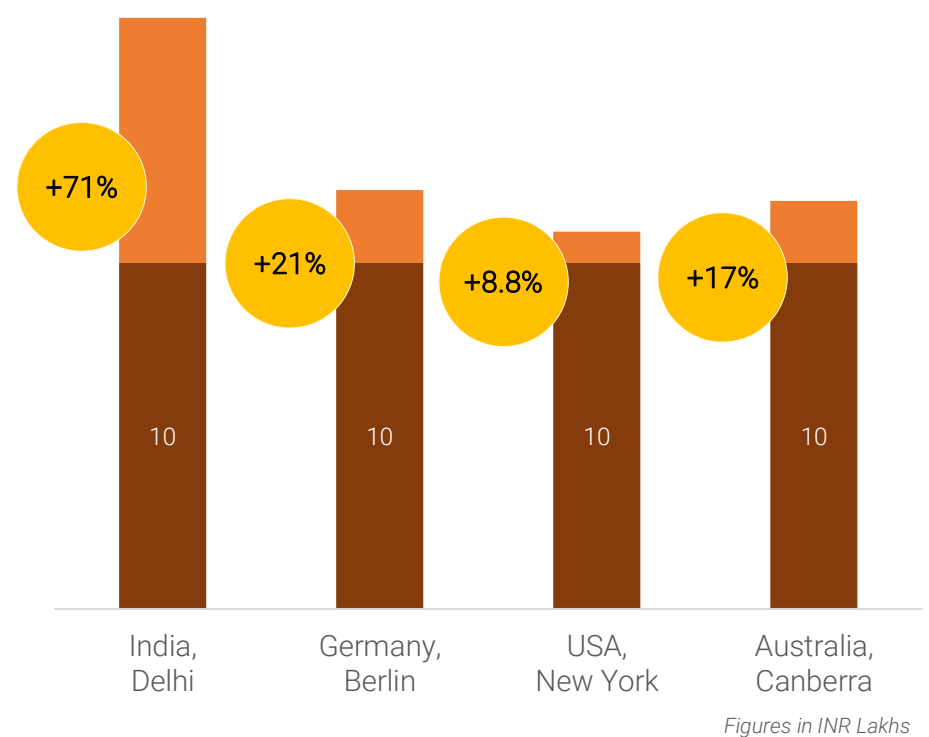
01 Comparing Tax Burden on Personal Vehicles

Taxation on personal vehicles varies significantly across countries, influenced by factors such as region, vehicle type, specifications, and intended use. Making direct comparisons on taxations is challenging due to diverse tax rates and structures.

In our analysis, we focus on a popular car or SUV model sold within a specific city in different countries. This sheds light on the total tax outlay for individual buyers, encompassing components such as GST, VAT, registration, and motor vehicle tax incurred at the time of purchase in respective cities.

For illustrative purposes, consider a scenario where a car in both Delhi and New York has an identical base value of Rs 10 lakh. In Delhi, this car, after all the taxes, would cost a consumer Rs 17 lakh. On the other hand, in New York, after all applicable taxes, the car's price would be around Rs 11 lakh.

Taxation Impact on Vehicle Pricing



Berlin, Germany



VW T-Roc (SUV)

	Charges	Amount (€)
A	Base Value (A)	24,756
B	Value Added Tax (VAT) (19%)	4,704
	Vehicle Registration Tax	250
	Motor Vehicle Tax	300
	Total Tax Paid (B)	5,254
C	Price (A+B)	30,010

$$\begin{array}{c} \text{€24,756} \\ \text{Pre-Tax} \end{array} \times \begin{array}{c} +21\% \\ \text{Multiplier} \end{array} = \begin{array}{c} \text{€30,010} \\ \text{Post-Tax} \end{array}$$

- In Germany, the small SUV segment is a market favorite, accounting for approximately 29% of the 2.6 million cars sold. Among the standout models in this segment are the VW T-ROC, VW Polo, and VW Tiguan.
- The country's Motor Vehicle Tax is determined by the engine capacity, measured in cubic centimetres or litres. In contrast, the Vehicle Registration Tax is based on a combination of factors: engine size, fuel type, and CO2 emissions.
- Beyond the one-time taxes at the point of purchase, Germany imposes annual taxes on vehicles. The Motor Vehicle Tax stands at €300 per annum, while the Vehicle Registration Tax is €250 yearly for the model considered.

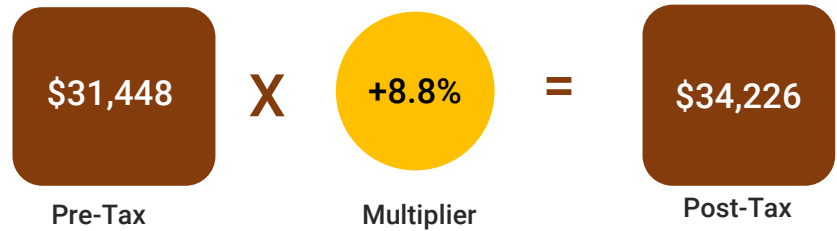
01 Comparing Tax Burden on Personal Vehicles

New York, United States of America (USA)



Toyota RAV-4 (SUV)

	Charges	Amount (\$)
A	Base Price (A)	31,448
B	Sales Tax (4%)	1,258
	City Tax Rate (New York) (4.5%)	1,415
	Title Fee	50
	Registration Fee	55
	Total Tax Paid (B)	2,778
C	Price (A+B)	34,226



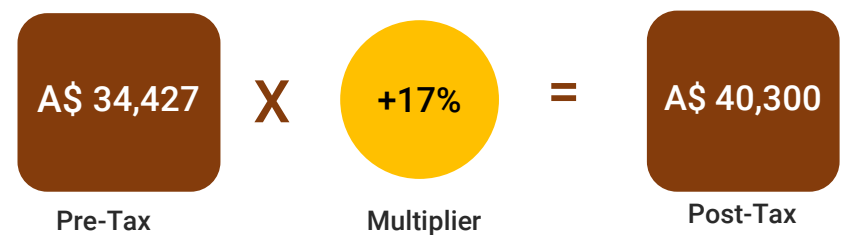
- In the U.S., the Toyota RAV4 holds a significant market share, with sales surpassing 366,741 units last year, cementing its position as the top-selling non-truck vehicle in the country.
- In New York, the vehicular tax structure comprises of sales tax and a city-specific tax, collectively amounting to 8.5%. It's noteworthy that this city tax is somewhat steeper compared to many other U.S. cities.
- New York bases its vehicle registration fee on the weight of the vehicle. As such, the biennial registration fee for a Toyota RAV4, considering its weight, is set at \$55.

Canberra, Australia



Kia Sportage (SUV)

	Charges	Amount (A\$)
A	Base Value (A)	34,427
B	GST (10%)	3,443
	Number Plate Fee	32
	Vehicle License Duty	1,986
	Registration	414
	Total Tax Paid (B)	5,874
C	Price (A+B)	40,300



- The Kia Sportage enjoyed substantial success in Australia's SUV market, recording 18,792 unit sales in 2022. This vehicle was also recognized as the "Best Mid-Size SUV" for the year.
- In Australia, the Goods and Services Tax (GST) is integrated into the vehicle's dealer price, meaning it's not a separate cost item.
- The Vehicle License Duty is levied at the point of registration or when there's a transfer of ownership. This charge is determined based on the vehicle's market value, its classification, and other specific criteria.
- Other associated costs in the vehicle pricing structure include the Number Plate Fee and the Registration Fee.

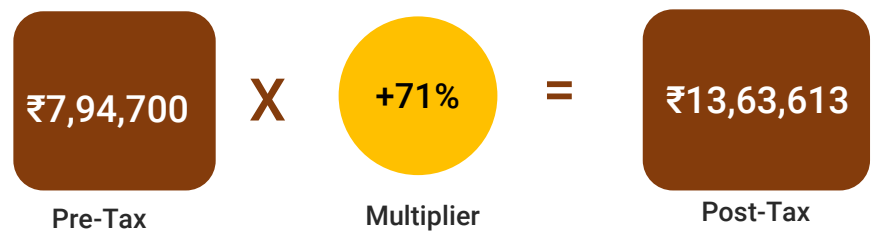
01 Comparing Tax Burden on Personal Vehicles

New Delhi, India



Creta Diesel (SUV)

	Charges	Amount (₹)
A	Base Value (A)	7,94,700
	Compensation Cess (22%)	1,75,428
	GST (28%)	2,23,272
	Ex-Showroom	11,96,100
B	Registration Road Tax (12.5%)	1,49,513
	Other Charges (Green Cess, Fast Tag, Parking, Hypothecation Charges, MCD Tax) – 1%	18,000
	Total Tax Paid (B) – Cess + GST + Road Tax + Other Charges	5,66,213
C	Price (A+B)	13,63,613



- The Creta ranks as the second highest-selling SUV in India, following the Tata Nexon, boasting sales of 140,895 units last year. Significantly, the Creta's sales comprise 25% of Hyundai's total sales in the country.
- The Ex-Showroom price of a vehicle includes the Compensation Cess, GST, and the Base Value.
- A Road Registration Tax, amounting to 12.5% of the vehicle's value, is levied on customers at the time of purchase. Notably, this tax rate can fluctuate based on the vehicle's price bracket and its specific fuel type.
- Additional charges include the MCD Tax, Green Cess, and Fast Tag, which together amount to 1% of the total payable price.

Tax Philosophies Across Nations

	USA	Australia	Germany	India
Taxes on Automobiles	Sales tax – 4%, City, Title etc – 4.8% Total : 8.8%	GST -10% Vehicle license , Number plate, Registration etc. Total : 17%	VAT – 19%, Vehicle registration, Motor vehicle tax 2% Total : 21%	GST – 28%, cess 22%, Registration- 12.5%, others 1% Total : 71%
People attitude	Automobiles are integral to "Americana". They are seen as necessities and tools for work.	Car is symbol of freedom and individuality and owning one is important.	Strong pride in automobile heritage. Adherence to traffic rules and environmental consciousness is prevalent.	Aspiring to own a car is common, and it's seen as a status symbol.
Possible Government Philosophy	Emphasis on a free market economy. Low indirect tax underpins economic philosophy. While direct taxation is higher, indirect tax remains low.	GST regime is simple at 10% for most goods. The main tax focus is on income tax. Cars are not perceived as luxury items.	Taxation is grounded in the "ability to pay" principle. The VAT regime, aligned with the EU system, is simple at 19%. Direct taxation is prevalent, but there's a higher taxpayer base.	Balancing equality, industry, and environmental goals is crucial. Cars are viewed as luxury items. Indirect tax on both cars and fuel is high, offering significant revenue for the government.

Total tax taken at base value. Taxes % will not add up as their base is different %



01 Comparing Tax Burden on Personal Vehicles

There is a perception that higher tax on personal vehicles is not allowing the automobile industry to reach greater sales number. While higher tax may seem restrictive, it serves as a crucial measure due to the country's dense population and inadequate road infrastructure that isn't prepared to accommodate a surge in private vehicles. The imposition of higher taxes on personal vehicles plays a pivotal role in promoting the utilization of public transportation, which, to a certain degree, aids in curbing CO2 emissions.

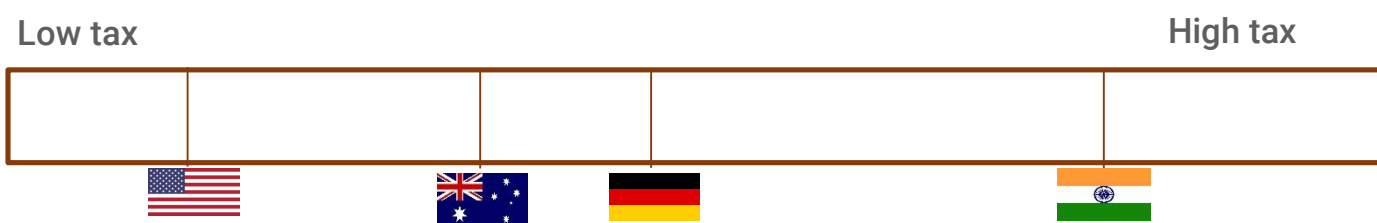
Despite high tax rates, the sale of automobiles continue to thrive in India which is the 3rd largest market for automobiles in the world following US and China.

Why tax should be high

- **Revenue Generation:** High taxes significantly add to the government's revenue, which is used for various development activities and public services.
- **Encouragement of Public Transportation:** Higher vehicle costs encourage the use of public transportation, which is more energy-efficient and environmentally friendly.
- **Economic Inequality Mitigation:** High taxes on luxury goods, like expensive cars, help redistribute wealth and mitigate economic inequality.
- **Environmental Consideration:** Discouraging the unbridled growth of automobiles on roads contributes to reduced pollution and improved air quality.

Why tax should be low

- **Stimulates Demand:** Lower taxes reduce the final price of the vehicle, making it more affordable and thereby stimulating demand.
- **Industry Growth:** Low taxes lead to the growth of the automobile industry by encouraging both domestic production and consumption.
- **Fosters Aspiration:** Low taxes make car ownership more accessible to a broader range of people, fulfilling a common aspiration for many families in India and enhancing their quality of life.
- **Promotion of EVs:** Lower taxes on electric vehicles accelerate their adoption, supporting environmental goals.



Taxes on Automobiles in India is on the higher side compared to major countries.

India's substantial automobile taxation serves as both a revenue source and a means to control vehicle proliferation on congested roads, indirectly aiding environmental preservation. It was reported in the parliamentary committee report in 2020, that the automobile sector contributes a substantial 15% of the total goods and services tax (GST).

However, as the economy and income levels rise, high tax approach might hinder long-term auto industry growth and consumer aspirations.

To strike a balance, India could enhance its tax model, offering deeper cuts for eco-friendly vehicles like EVs while maintaining or increasing rates for luxury and high-emission ones. Retrofitting and trade-in programs could expedite the shift to cleaner options, fostering industry growth, particularly in EVs, without compromising revenue and environmental goals.



02 EV Incentives Impact

China EV incentives

Since 2009, China emerged as a major force in the Electric Vehicle (EV) market, investing over US\$47 billion to boost adoption and stimulate the industry. This strategy has made China the largest global market for hybrid vehicles, achieving a remarkable 44% share of global sales in 2016.

What worked

- China introduced a sweeping tax incentive package worth US\$72.3 billion spread across four years in 2023. This package not only aims to make EVs more affordable for consumers, but also places significant emphasis on developing a robust charging infrastructure.
- China's robust EV investment boosted domestic consumption and propelled it to a global leader in EV production, batteries, and components. Renowned EV companies like BYD and NIO emerged, alongside a strong battery supply chain secured through global lithium reserves, cementing China's influential role in the EV industry.

What did not work

- The subsidy system, initially beneficial, became vulnerable to exploitation by manufacturers aiming to maximize subsidy claims
- Fraudulent practices became widespread, resulting in massive 'graveyards' of unused electric vehicles. These included more than ten thousand Neta Chinese EV cars that now sit abandoned in fields, many with less than 31 miles on them.
- Large companies would manufacture and register these vehicles, only to subsequently abandon them. This practice was driven by the superficial appeal of outperforming international competitors in sales, such as Tesla

Key Takeaway from this study:

While China's remarkable rise to the top of the EV market is commendable, the strategies employed have not been without flaws. The country's experiences provide essential lessons on the balance needed between incentivization, regulation, and long-term sustainability in the EV industry.

China's dominance is undisputed, but their methods highlight the importance of regulatory oversight in the EV industry.



China's Abandoned EV Graveyard



02 EV Incentives Impact

Sweden's EV Growth

Sweden has emerged as a strong player in the electric vehicle (EV) market due to its robust set of incentives, grants, and tax subsidies. The Bonus Malus scheme was a key driver in this change, providing a significant grant for low-emission vehicles. Additional grants for EV buses and company car tax deductions for EVs and plug-in hybrid electric vehicles (PHEVs) further boosted EV adoption.

What worked

- Nation's Bonus Malus scheme offered a substantial grant of upto 60,000 SEK (€6,000) for new low-emission vehicles.
- Additionally, Nation's Bonus Malus policy allowed for company car tax deduction of up to 40% for EVs and plug-in hybrid vehicles (PHEVs).
- Development and expansion of charging infrastructure in Sweden over 8 years helped Sweden in accelerating growth of EVs. Charging stations skyrocketed from just 500 in 2012 to 10,000 in 2020.
- Stockholm and Gothenburg, cities in Sweden introduced local incentives to support EVs. These incentives included free EV charging in Stockholm to the expansion of the EV in charging network in Gothenburg, with 500 new charging stations.



Key Takeaway from this study:

The future of EVs in Sweden now hinges largely on its policy framework and the policies of other EU countries that could influence the allocation of vehicles to Sweden. Despite policy changes, Sweden continues to explore innovative ways to further bolster its EV adoption rates, including enabling public fast charging for heavy vehicles. The nation's journey features the balance needed between incentivization, adaptation, and sustainability in the rapidly evolving EV industry.



Fig.2 Charging Station in Sweden



02 EV Incentives Impact

India's EV Initiatives

Government of India has been supporting the growth of electric vehicle (EV) through FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) and PLI (Production Linked Incentive) schemes. Other schemes like support to charging infrastructure, lower tax on EV etc. are also helping.

What worked

- FAME II successfully encouraged EV adoption, especially for electric two-wheelers. Even after exhausting the specific allocation for two-wheelers, the government continued the subsidies at a lower rate, demonstrating its commitment to boosting EV adoption.
- The scheme facilitated the introduction of high-performance electric two-wheelers in the market. With the 40% subsidy on the total vehicle value.
- PLI scheme for Automobiles focuses on EV, and PLI Scheme for Advanced Chemistry Cell Battery on development of the supply chain for EVs. PLI schemes have been received very well by the industry. Private investment of ~Rs 75,000 crore is pledged for the schemes.

What did not work

- There were allegations of subsidy misappropriation within the scheme. Several EV manufacturers were accused of submitting misleading information and falsely declaring imported components as locally sourced, thus exploiting the subsidy system.
- FAME II did not effectively boost local manufacturing as intended.
- There are some articles in news that the actual investment by private players for PLI schemes is behind target.

Key Takeaway and Future Strategy:

FAME II spurred EV innovation and adoption in India, particularly for electric two-wheelers, but challenges like subsidy misuse and inadequate domestic manufacturing have raised uncertainty about its future success

India is looking to move out from customer-based incentives like FAME policy and run policies like PLI that incentivise results (higher production).

PLI incentive is to be paid after vehicle / goods are sold, and in a way GST and other taxes are already collected. This reduces the burden on the Government, while keeping the incentive for private player intact.

India needs to have more efforts to improve the EV ecosystem. It should also learn from successes and failures of other countries.



Fig. 3 EV charging hub of BluSmart in Gurugram, India



03 Policy News



Govt to come out with payment security mechanism to support large scale e-bus rollout

August 4, 2023

In addition to the subsidies offered under the FAME-II scheme, the government aims to look at payment security mechanisms to bring down the cost of EVs and increase their adoption.

[Read more](#)



Civic body to procure e-carts, tipper autos to collect waste in Kochi

August 3, 2023

Kochi city corporation has proposed to procure around 800 e-carts for garbage collection and 77 tipper autorickshaws. 120 e-carts will be procured and launched in the first phase.

[Read more](#)



Many companies fail to make required investments under auto PLI scheme

August 3, 2023

About a third of the 95 automotive and auto component companies qualifying for the sectoral PLI scheme did not make the requisite investments in the first year due to delays in the release of SOP for calculating domestic value addition.

[Read more](#)

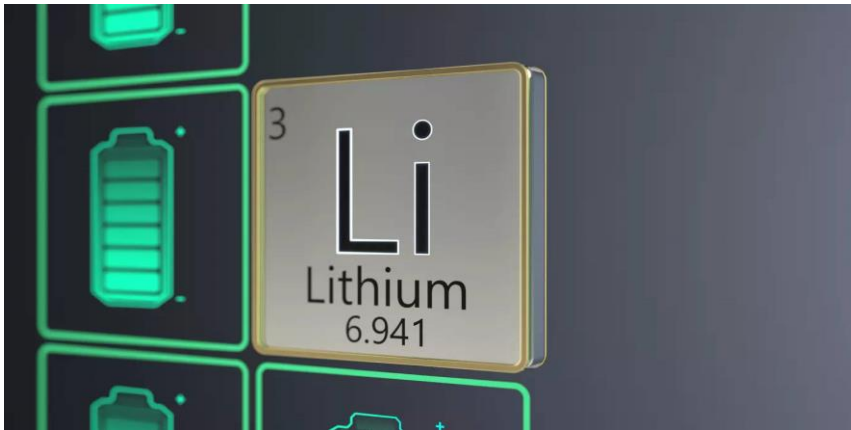


No more new non-EVs for UT officials in Chandigarh

August 1, 2023

The Chandigarh Electric Vehicle Policy 2022 was amended to include that all government departments and local bodies will only purchase electric vehicles, with effect from August 2023.

[Read more](#)



NITI Aayog proposes incentives for processing and refining of mineral in lithium-ion batteries

July 31, 2023

Tax benefits and a production linked incentive scheme has been proposed to encourage production and refining of critical minerals used in production of lithium-ion batteries.

[Read more](#)



Haryana State EV Policy 2022: Electric vehicle buyers to get INR 10 lakh discount, massive discount to companies

July 7, 2023

Under the policy, buyers of electric vehicles or hybrid electric vehicles in Haryana, will enjoy an early bird benefit transfer of up to INR 10 lakh. Relaxation in registration fees and lower Motor Vehicle Tax rates are also being offered.

[Read more](#)

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PASSION

for providing solutions to help clients achieve their goals

RESPECT

for all and alternate viewpoints

INTEGRITY

of thoughts and actions

MASTERY

of our chosen subject to drive innovative and insightful solutions

US

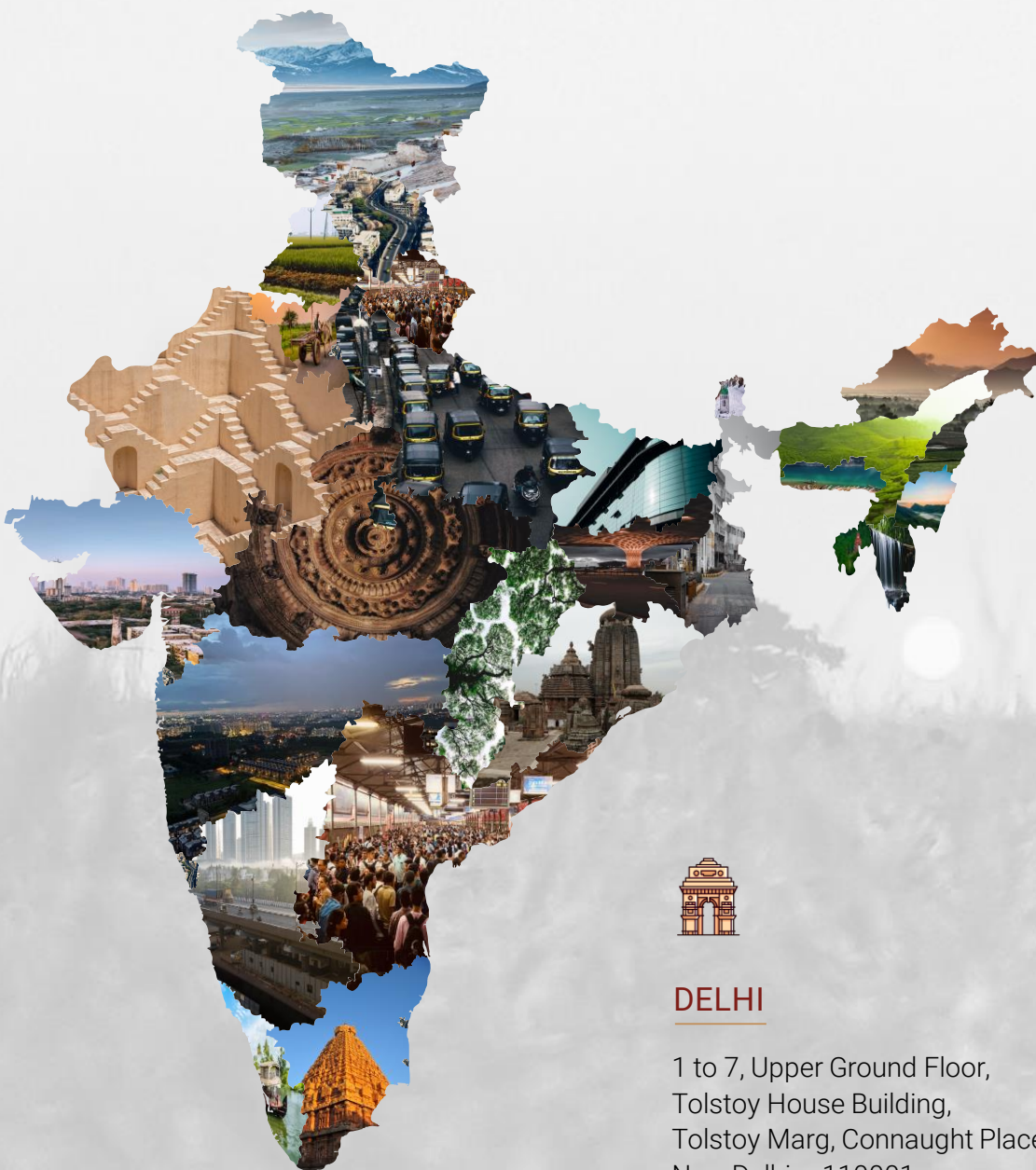
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About Primus Partners

Primus Partners has been set up to partner with clients in ‘navigating’ India, by experts with decades of experience in doing so for large global firms. Set up on the principle of ‘Idea Realization’, it brings to bear ‘experience in action’. ‘Idea Realization’— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability. Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc.), and with varied specialization (engineers, lawyers, tax professionals, management, etc.).



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