

India Powertrain Outlook

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Compliance Forecasts

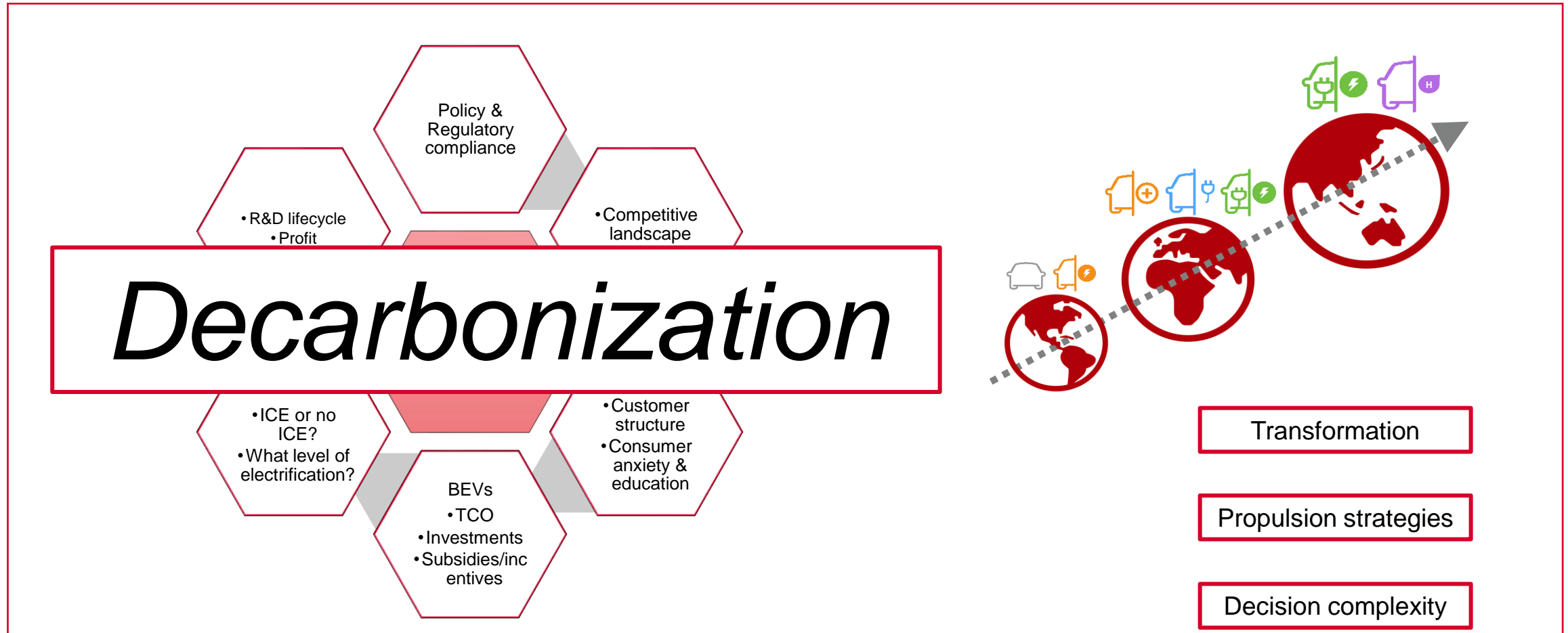
10 November 2022

Contents

- Key Powertrain trends
- BEV Landscape

Powertrain selection: The entanglement

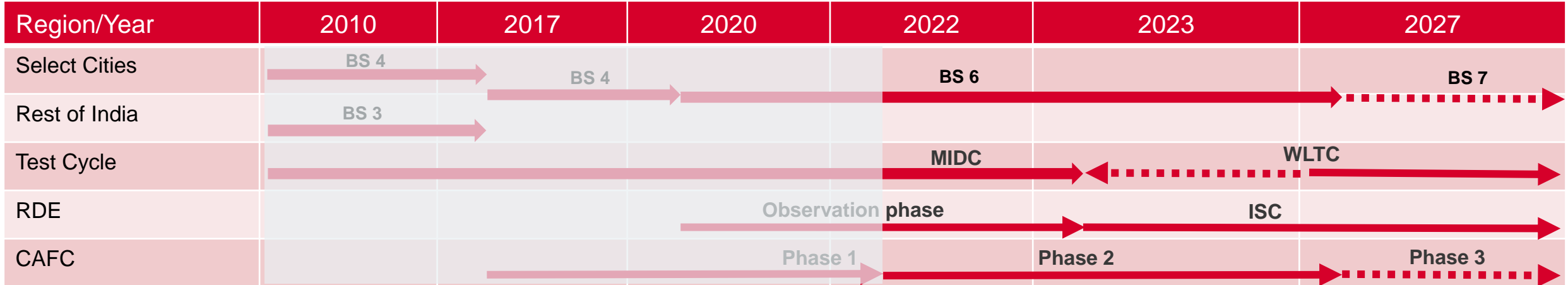
Multidimensional, complex interrelatedness, and with variable sensitivities



Source: IHS Markit

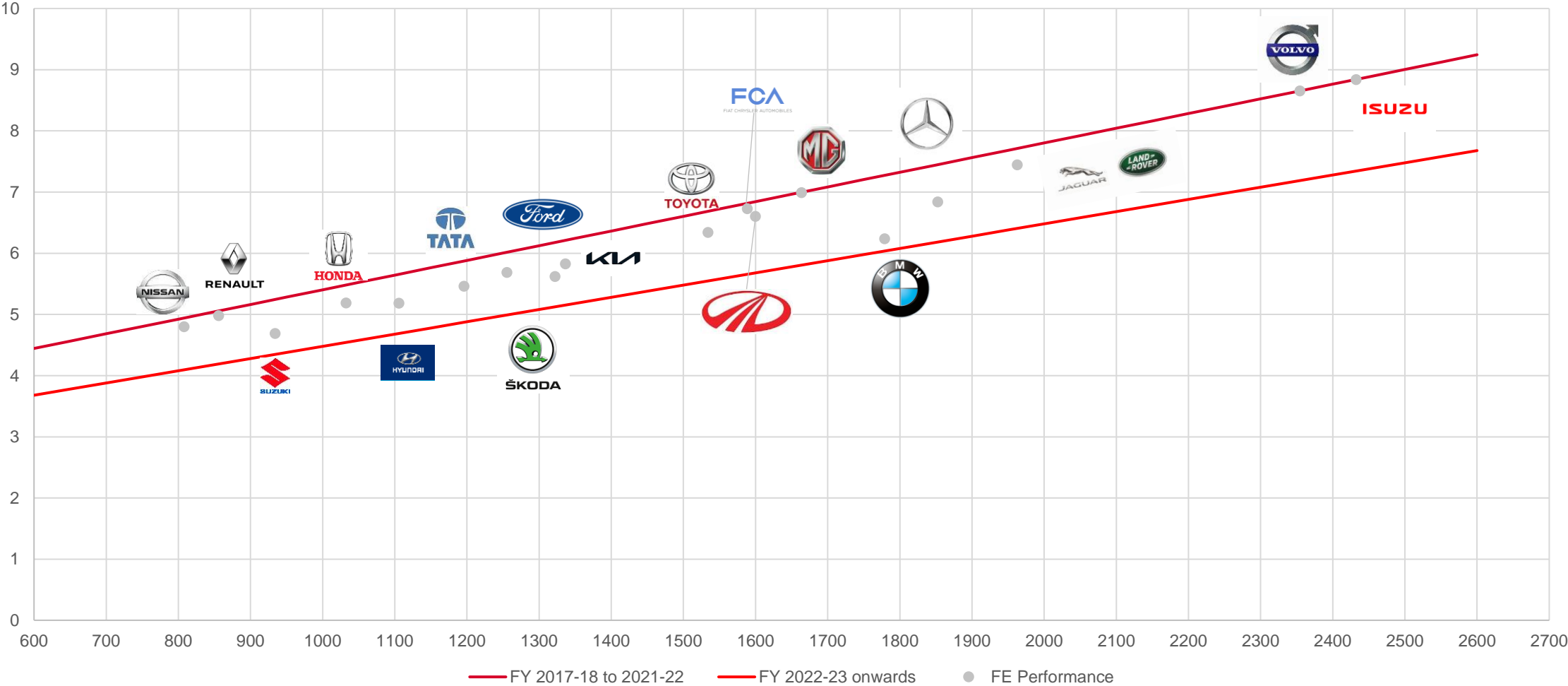
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Emission Norms Schedule



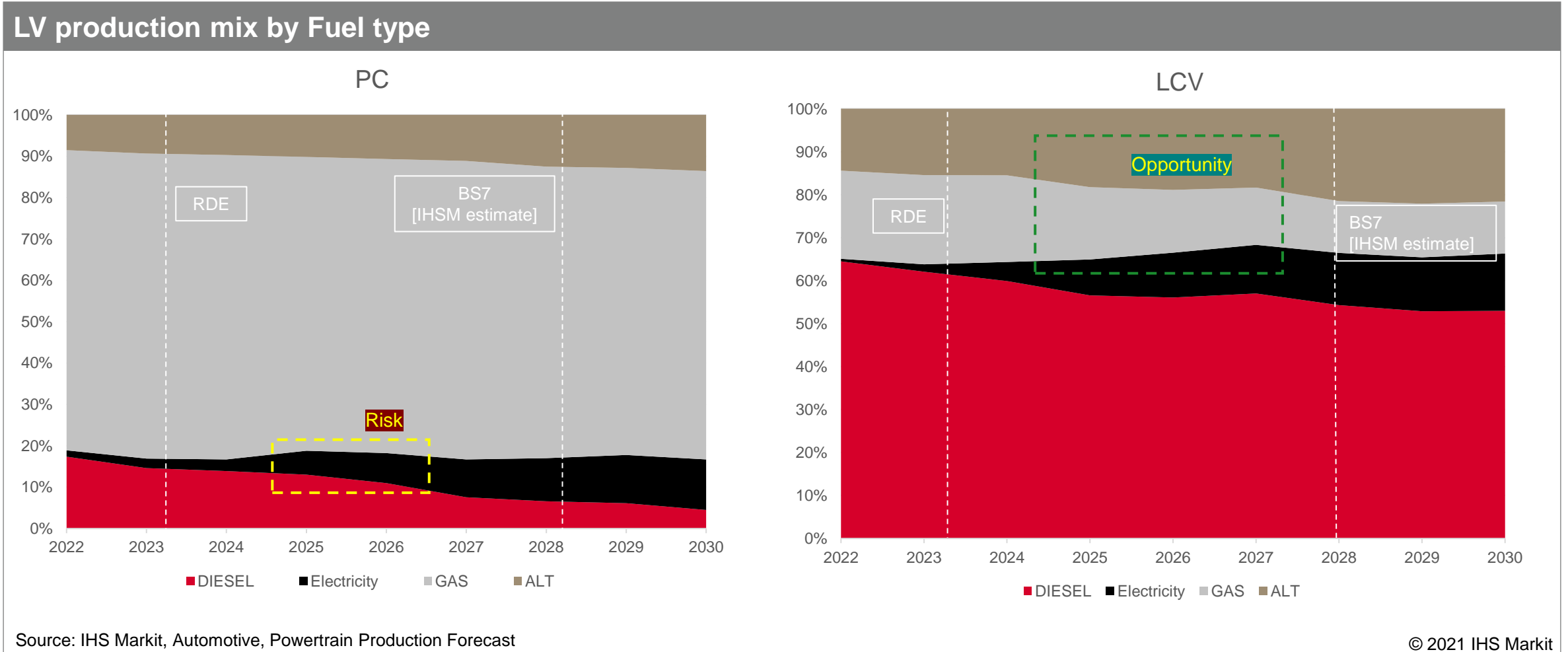
- RDE – Real Driving Emissions
 - CAFE 2 – Corporate Average Fuel Economy 2
 - WLTC – World-harmonized LV Test Cycle

Actual FE Data – FY 2019-20



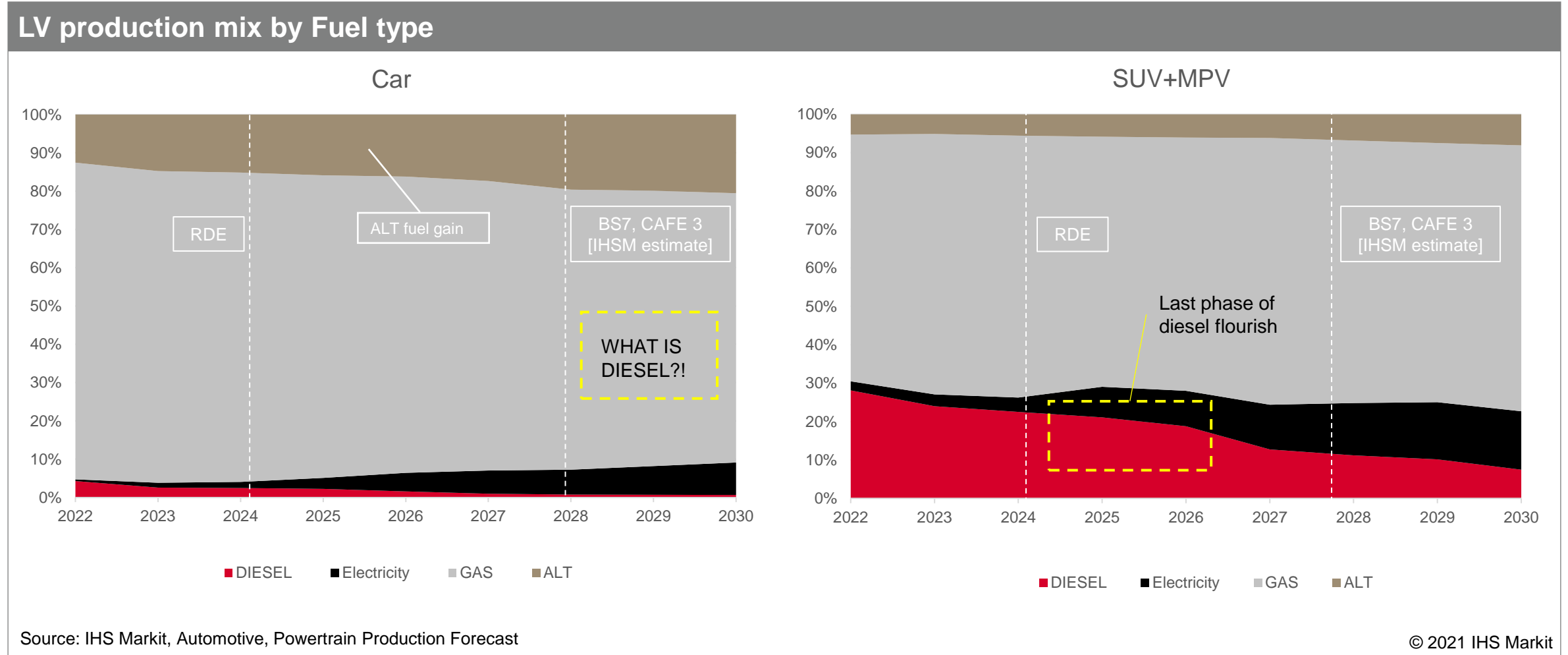
Fuel Type Share

Evolving landscape to comply with the future policies/regulations



Fuel Type Share

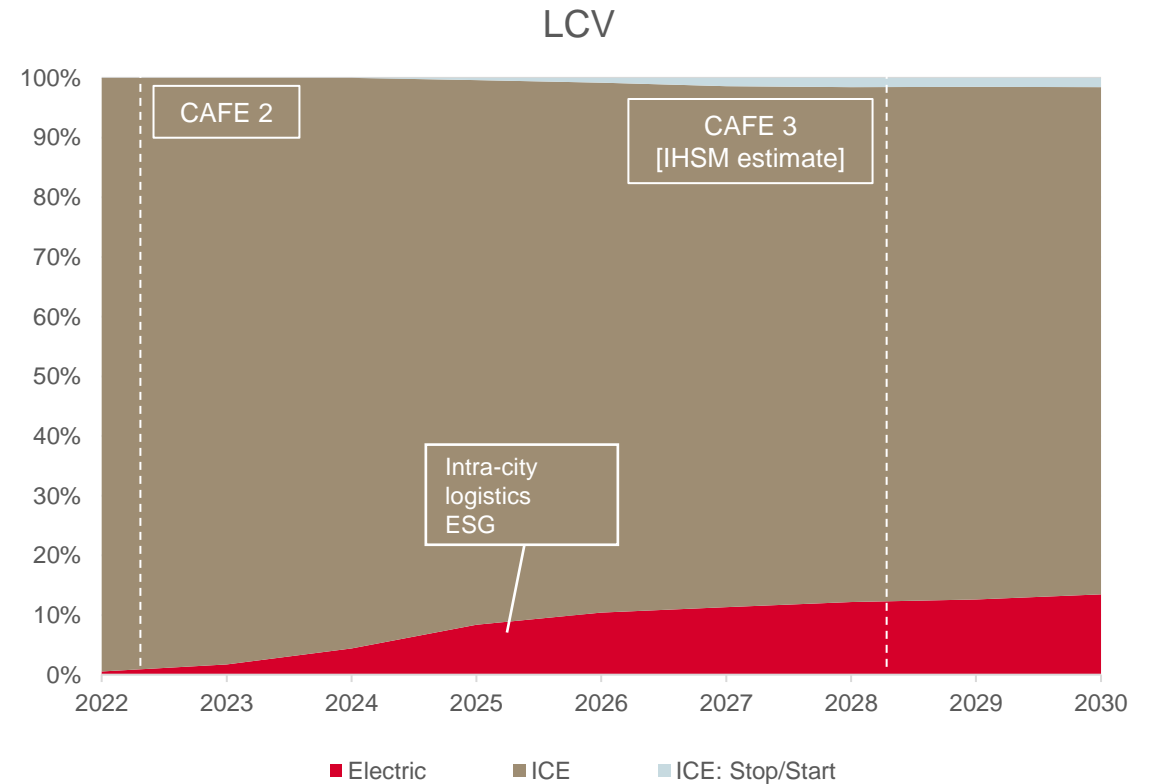
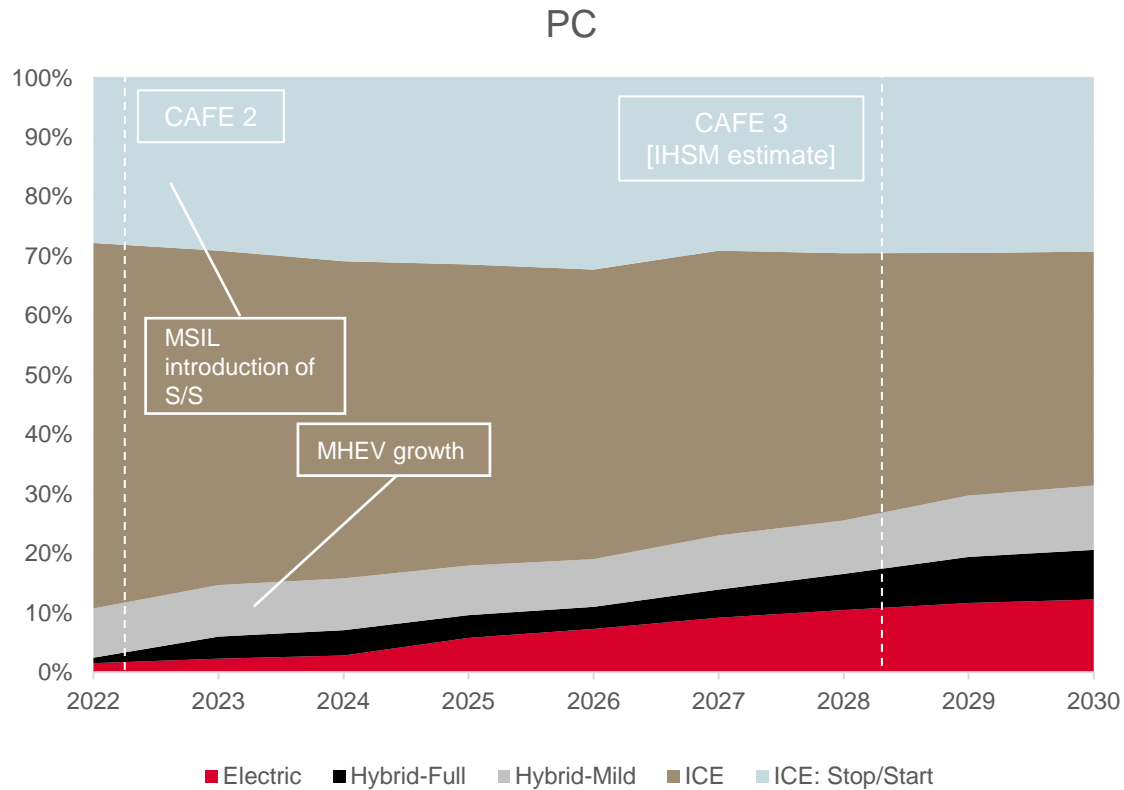
Which bodytype will have diesels?



India Electrification outlook

Evolving landscape to comply with the future policies/regulations/norms

LV production mix by propulsion types



Source: IHS Markit, Automotive, Powertrain Production Forecast

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EV Landscape in India

EV Landscape

Current state of EVs in India

Policy

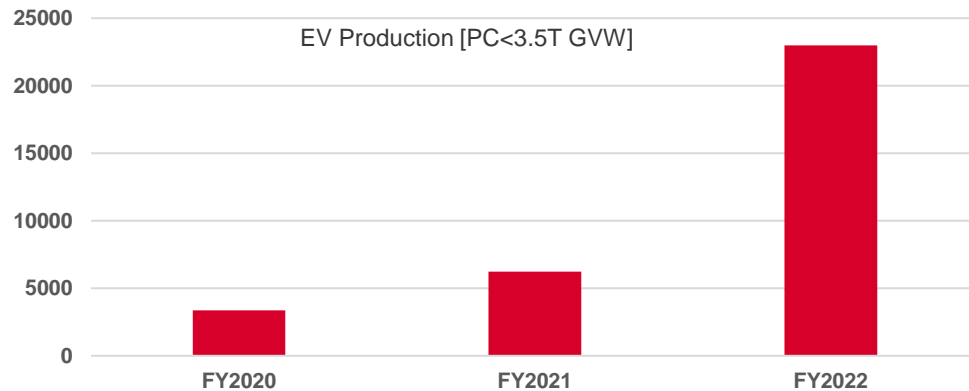
- FAME
- PLI ACC
- PLI Components
- PMP Charging infra development
- State EV Policies

Players

(mass OEMs)

- Tata
- MG
- Hyundai
- Mahindra

Market Size



CO2 emissions

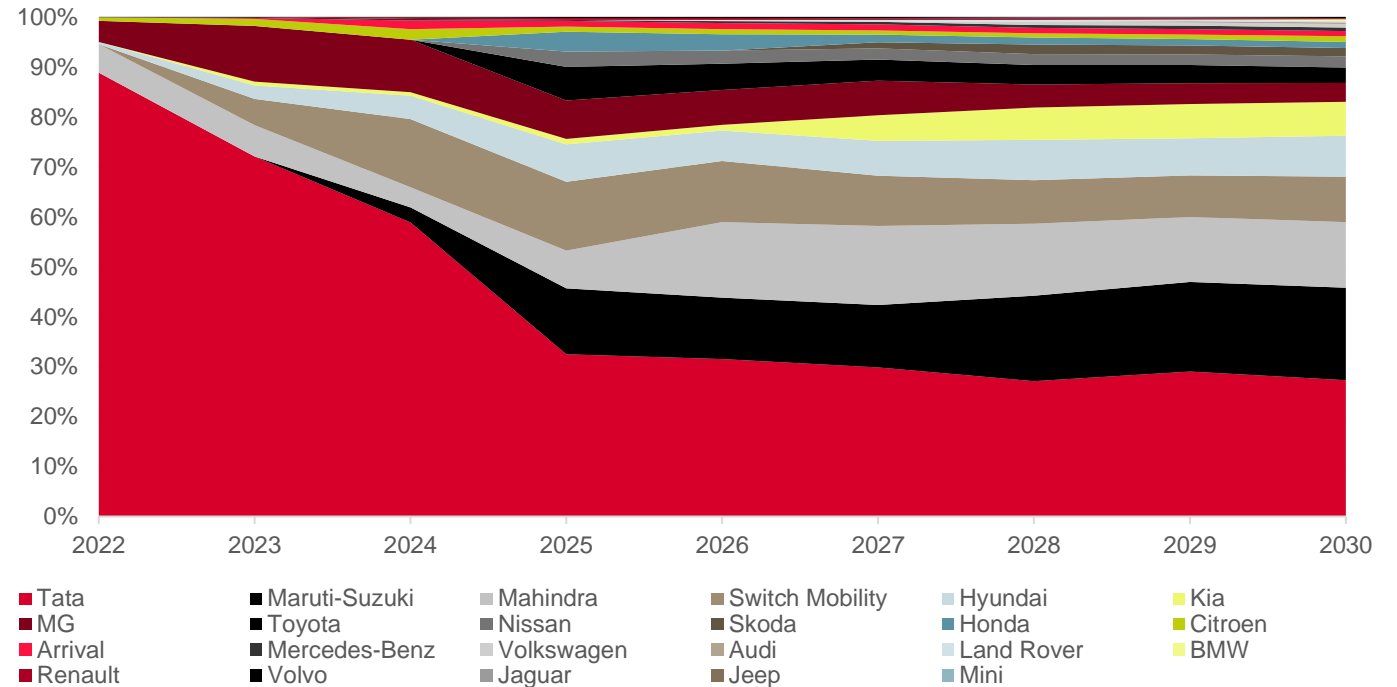
- CoP26, Glasgow – Net-zero target by 2070.
- Transportation sector is the third-largest CO2 emitter in India.
- Road transport, estimated to account for about 18% of India's total CO2 emissions in 2020, is the top contributor in the transportation sector.
- The business-as-usual development mode is expected to result in 1.2- 1.5 Gt CO2 emissions from the transportation sector in 2050.

EVs: New game, new players

Production of EVs — niche but NOT insignificant

FAME 2

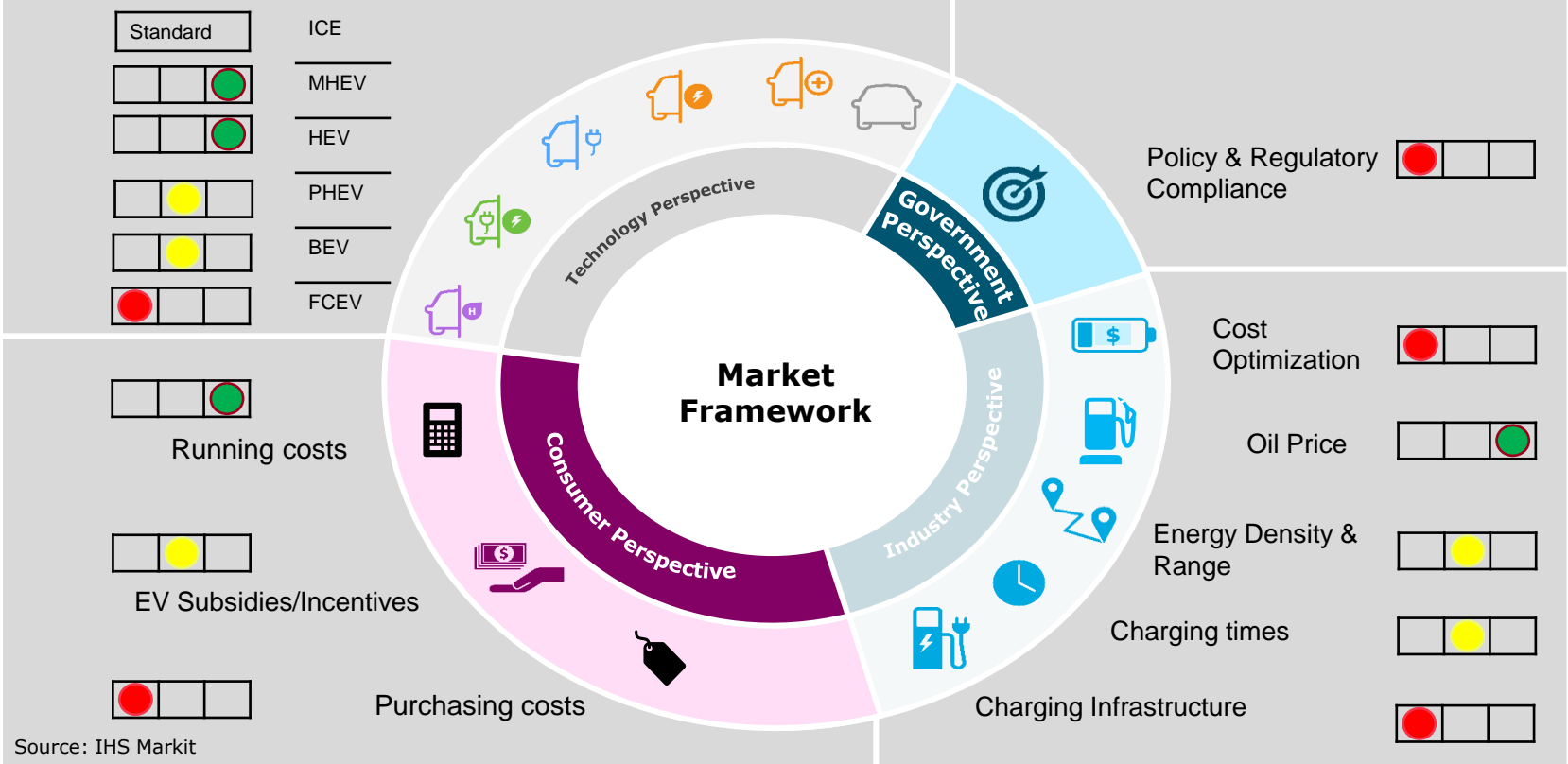
- ✓ ₹525 Cr (~5%) allocation.
- ✓ Covers only commercially registered.
- ✓ 35000 4W-EVs to get support.
- ✓ 20000 Strong HEVs to get support.
- ✓ Max ex-factory price limited to ₹15 lakhs.
- ✓ Max incentive capped at 20% of ex-factory price.



Source: IHS Markit, Automotive, Powertrain Production Forecast

The support for EVs in the 4W segment hasn't been as strong as it has been for 2W/3W segments, and justifiably so. Nonetheless, the global movement towards cleaner mobility options has induced interesting dynamics in the Indian EV landscape. By the middle of the next decade, EVs may not remain "niche" anymore.

Market framework of electrified vehicle (xEV) – India Scorecard 2022



STOP	LOOK	GO
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