■ Global EV Market Analysis Dashboard

A Data-Driven Study of Electric Vehicle Adoption and Market Trends using Power BI

■ Introduction

The Global EV Market Analysis Dashboard focuses on understanding how electric vehicle (EV) adoption has evolved across the world. Using Power BI, this project visualizes EV data sourced from multiple open datasets, including Kaggle and IEA (International Energy Agency), covering sales, stock, and technology distribution trends from 2010 to 2023.

■ Objective

The main goals of this analysis are to track global EV adoption trends, identify leading countries and vehicle types, compare BEV vs PHEV performance, and provide recommendations for sustainable mobility.

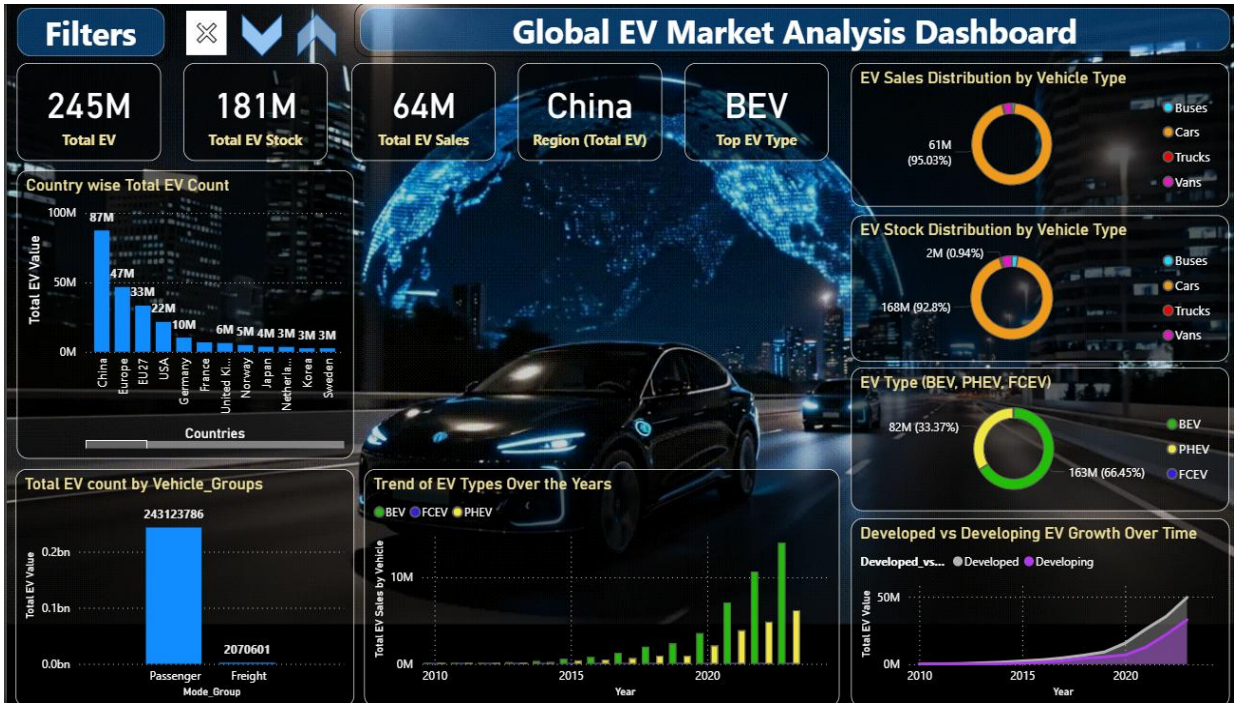
■ Dataset Overview

Feature	Description
Dataset Name	Global Electric Vehicle Market Dataset
Source	Kaggle, IEA (International Energy Agency)
Duration	2010 – 2023
Records	~15,000+
Columns	10+ major attributes
Key Attributes	Country/Region, Vehicle Type, Technology Type, Year, EV Sales, EV Stock

■ Insights & Findings

1. China leads the global EV market, contributing the largest share of sales and stock.
2. Passenger vehicles account for the highest EV adoption globally.
3. Battery Electric Vehicles (BEVs) dominate over Plug-in Hybrids (PHEVs).
4. Europe and the USA show consistent year-over-year EV stock growth.
5. Developing nations like India are catching up due to government incentives.

■ Dashboard Snapshot



■ Recommendations

1. Expand charging infrastructure to support rapid adoption.
2. Invest in battery innovation for extended range and affordability.
3. Promote renewable energy integration for sustainable EV charging.
4. Introduce government incentives and awareness campaigns to accelerate adoption.

■ Business Impact

This analysis helps policymakers, automakers, and investors identify market opportunities, design sustainability strategies, support data-backed decisions, and contribute to the transition toward carbon-free mobility.

■ Conclusion

The project highlights the global shift toward electric mobility and the importance of technology, innovation, and infrastructure in sustaining this transition. The Global EV Market Analysis Dashboard supports data-driven storytelling and decision-making for the future of green transportation.

■ Learnings

Through this project, I learned to build Power BI dashboards, create DAX measures, and apply data analytics for sustainability insights.

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