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### **Power BI Project : Global EV Sales 2010 - 2024**

### **Dear Innominion,**

### Congratulations on completing your Power BI journey! It’s time to take the next step and turn insights into real-world impact. Let’s dive into project-based learning and showcase your skills with data storytelling!

### **Data Source**

**👉 Kindly click to download the** [**Global EV Dataset**](https://drive.google.com/file/d/1HEYD4wMVb0tSO8_mhV3KckgH8q_5M2_9/view?usp=drive_link)

### **Data Description**

* **region** – The geographic region or country where the EV data is reported.
* **category** – The type of vehicle (e.g., cars, buses, 2-wheelers, trucks).
* **parameter** – The measured metric (e.g., stock, sales, energy use).
* **mode** – The transport mode (e.g., road, rail, etc.).
* **powertrain** – The type of EV drivetrain (e.g., BEV, PHEV, FCEV).
* **year** – The calendar year for which the data is recorded.
* **unit** – The unit of measurement (e.g., number of vehicles, TWh).
* **value** – The numeric value of the recorded parameter.

**📝 Reporting Instruction:**

Try to create reports that include a variety of visual elements such as **cards, bar charts, column charts, scatter plots, waterfall charts, funnel charts, slicers, tables, matrix visuals, pie/donut charts, boxplots etc** wherever applicable to make the analysis more interactive and insightful.

**🔖 Additional Note:**

*If you have space in your dashboard, feel free to add extra cards, slicers, or any other relevant visuals.* ***You are encouraged to create your own questions and insights beyond the ones provided.*** *There is no rule that you must stick only to the given questions, explore and expand creatively.*

**Analysis Questions**

### **Section 1: Regional & Category Trends**

1. What is the total EV value by region over the years?
2. Which region has shown the highest EV growth over time?
3. What are the top 5 regions contributing most to EV adoption in the latest year?
4. How does EV penetration differ between categories (e.g., car, bus, truck) by region?
5. Which region dominates in a specific category (like buses or 2-wheelers)?
6. Compare EV performance in developed vs. developing regions over time.

### **Section 2: Powertrain & Mode Insights**

1. What is the distribution of EVs by powertrain (BEV, PHEV, FCEV, etc.)?
2. Which powertrain type has seen the fastest growth globally?
3. How does powertrain adoption differ across transport modes (passenger, freight)?
4. What is the share of different modes (road, rail, etc.) by powertrain type?
5. Which combination of mode and powertrain is most dominant in each region?
6. Compare powertrain usage in 2020 vs. 2024 – what changed?
7. Visualize the trend of each powertrain type over the last 5 years.

### **Section 3: Parameter & Unit Analysis**

1. Which parameters are most frequently recorded (e.g., stock, sales, energy use)?
2. For each parameter, which region contributes the most?
3. How has EV energy consumption evolved over time by region?
4. What is the unit distribution across parameters (e.g., number of vehicles, TWh)?
5. Analyze stock vs. new registrations year-over-year across categories.
6. Which regions show the highest values in the “sales” parameter recently?

### **Section 4: Time Series & Comparative Analysis**

1. What is the year-wise trend in total EV stock globally?
2. How does EV growth compare across years for top 3 regions?
3. What is the cumulative value of EV metrics across years?
4. Compare the value trend of BEVs vs. PHEVs over time.
5. In which year did each region peak in EV sales or stock?
6. Which category saw the most significant spike in a single year?