

POTENTIAL EV OPPORTUNITIES FOR SUN MOTORS

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GOALS AND OBJECTIVES

Goal

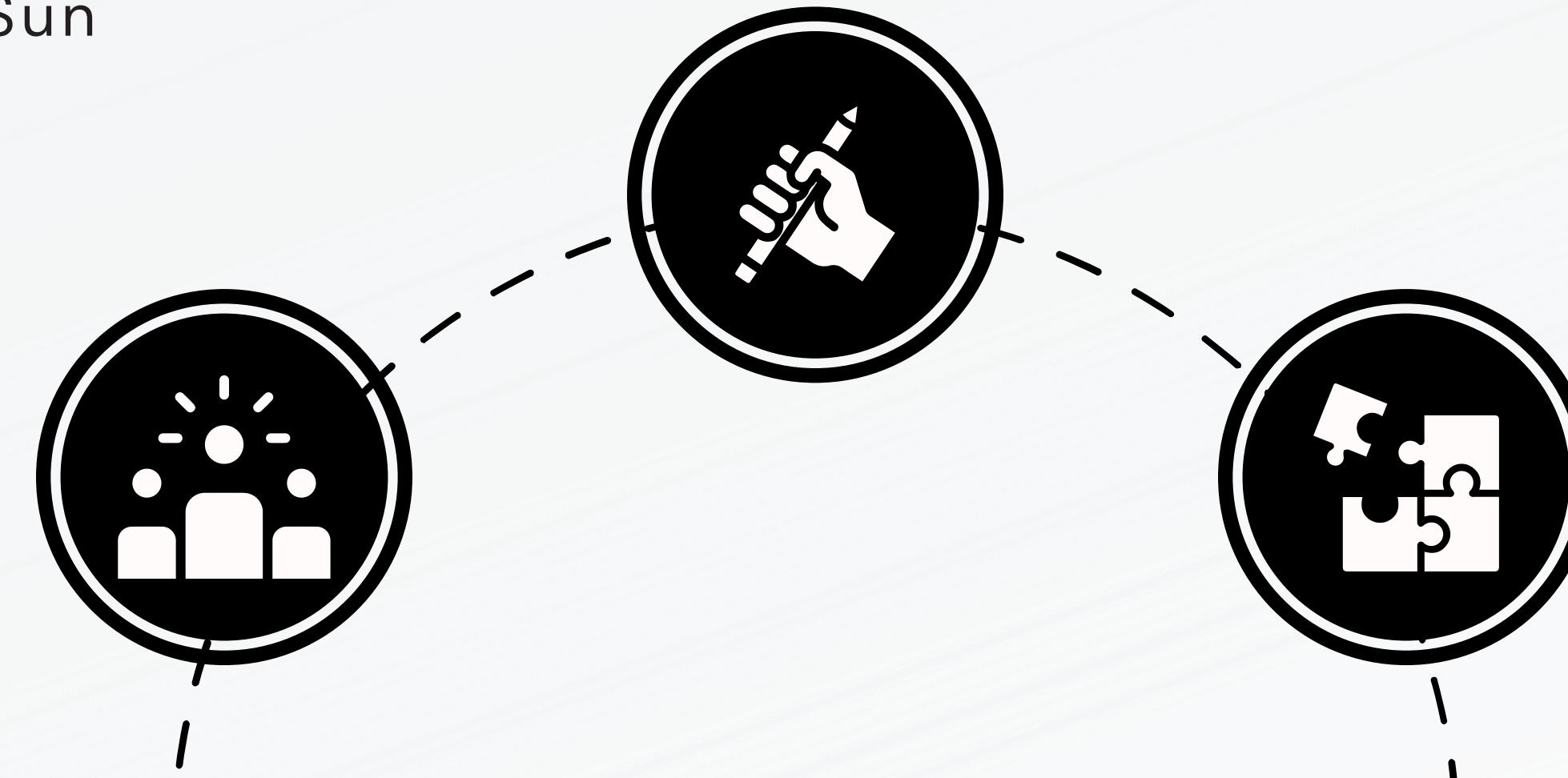
Recommend if entering into EV market is viable or not for Sun Motors.

Methods

Traditional market analysis backed with data visualization and statistical inferences

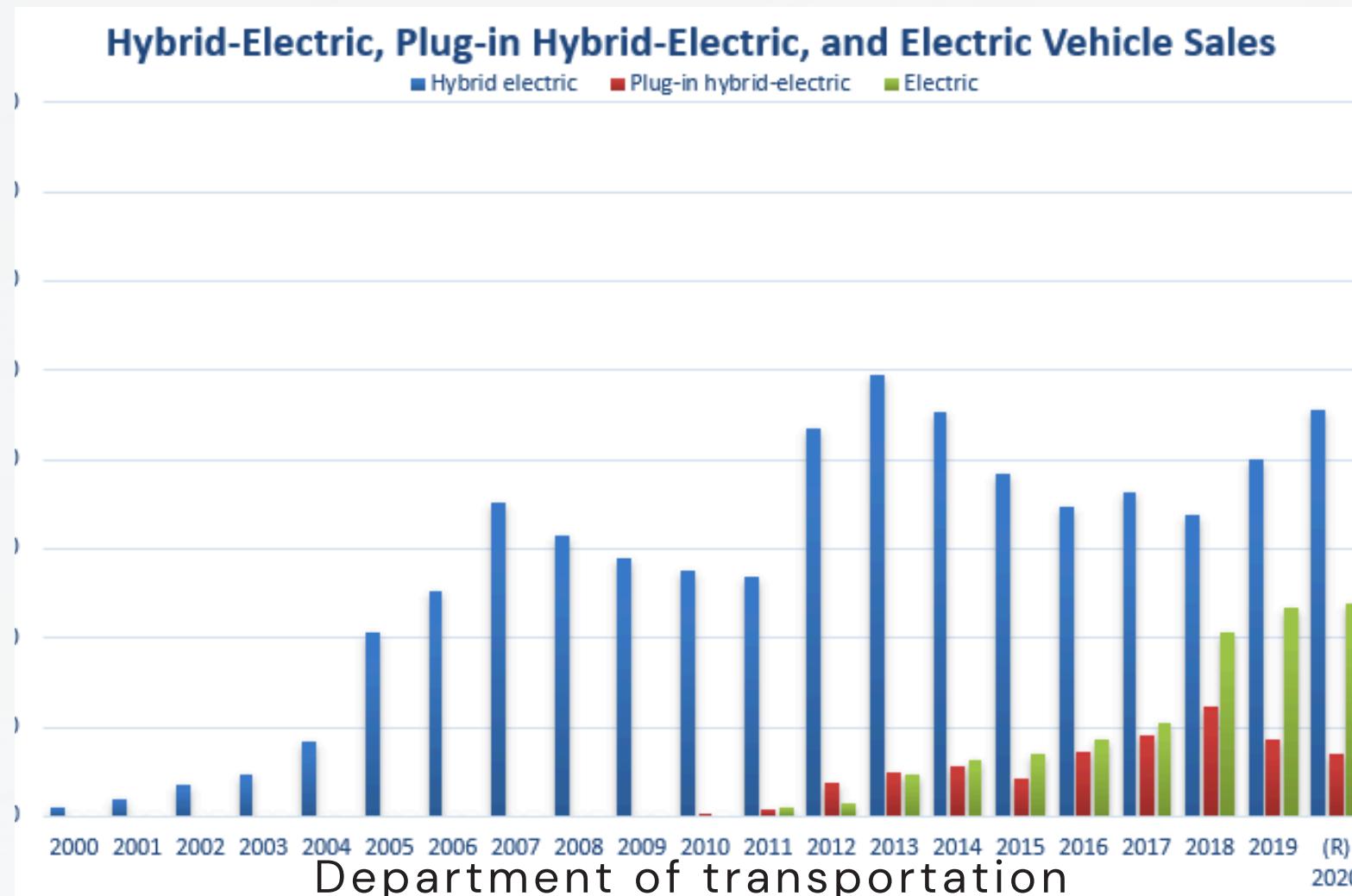
Tools and Data

Data Analyzed: supplied data(interpreted using Power BI), US DOT, US census, etc.

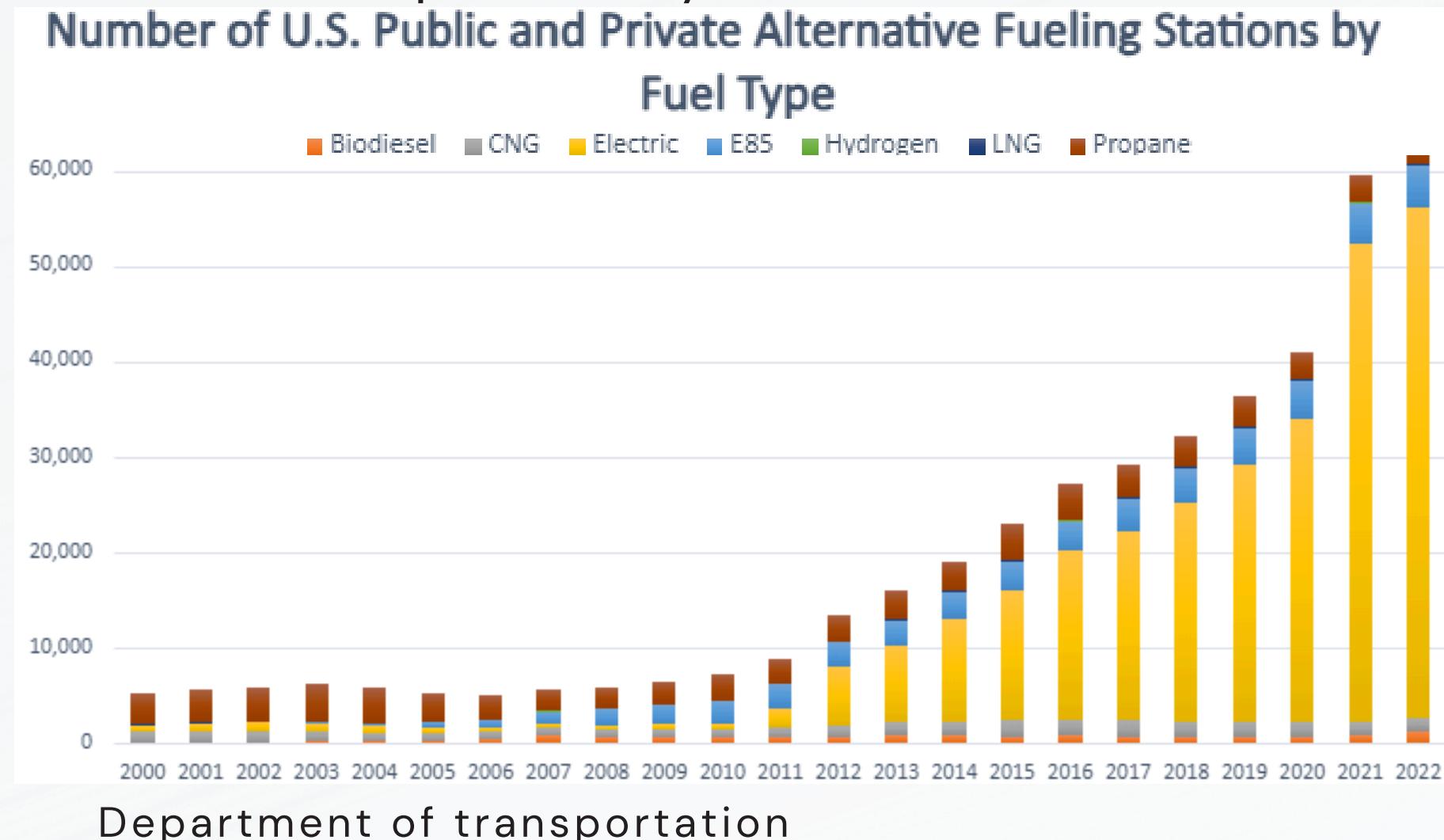


MARKET OPPORTUNITY

- Increasing demand
- The amount of sales for electric and hybrid vehicles is rising rapidly as represented by the blue and green bars



- Increasing popularity
- Fueling stations for EVs(represented by the yellow bars) are rising in numbers over the past 20 years



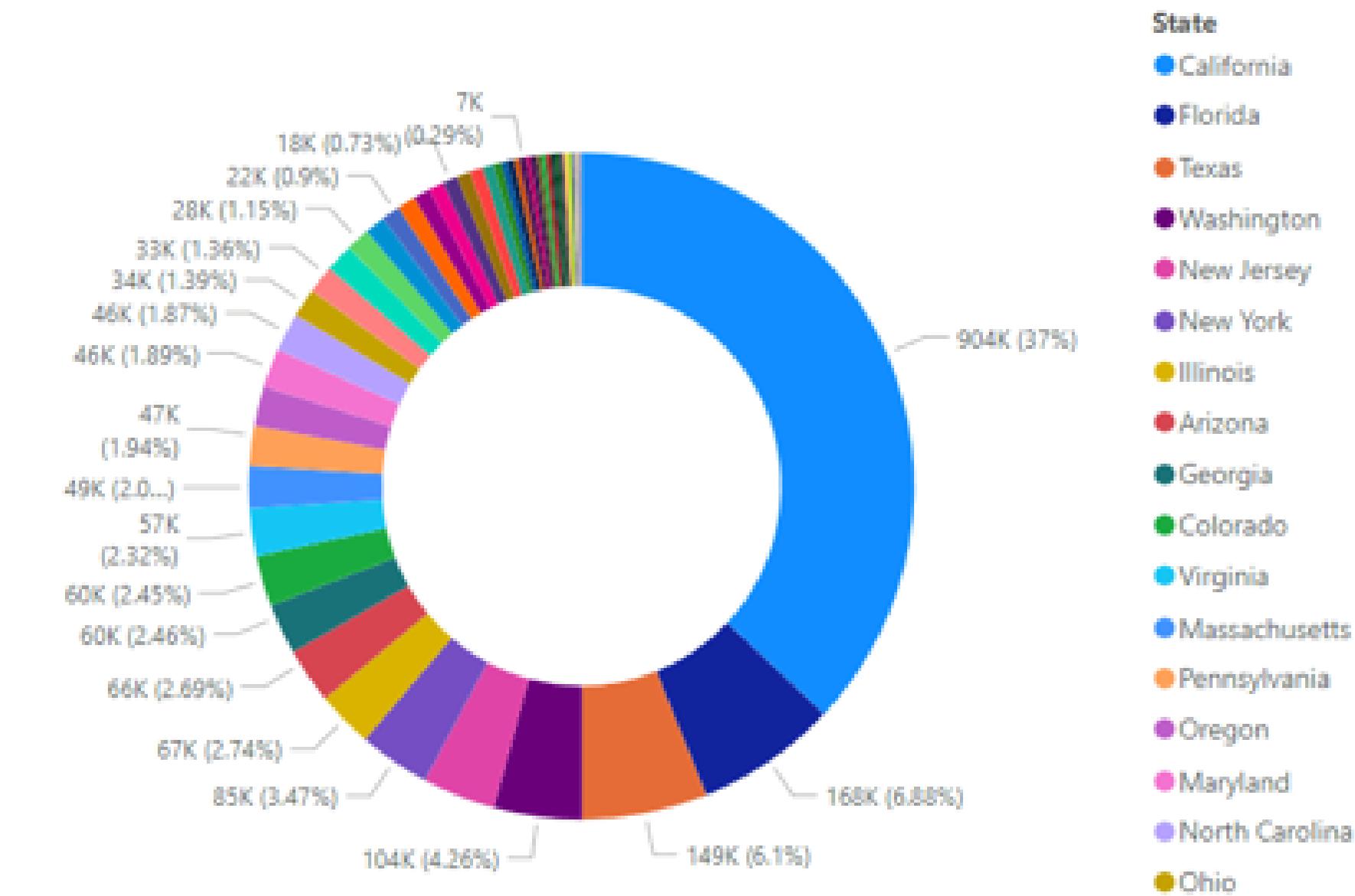
CONSUMERS

Consumer Sentiments:

- Reasons: saving gas (76%) and concern for the environment (60%).
- Barriers: cost (59%), lack of charging stations (56%),
(data according to American Automobile Association)

- Higher income groups, government subsidies and regulations are other factors.

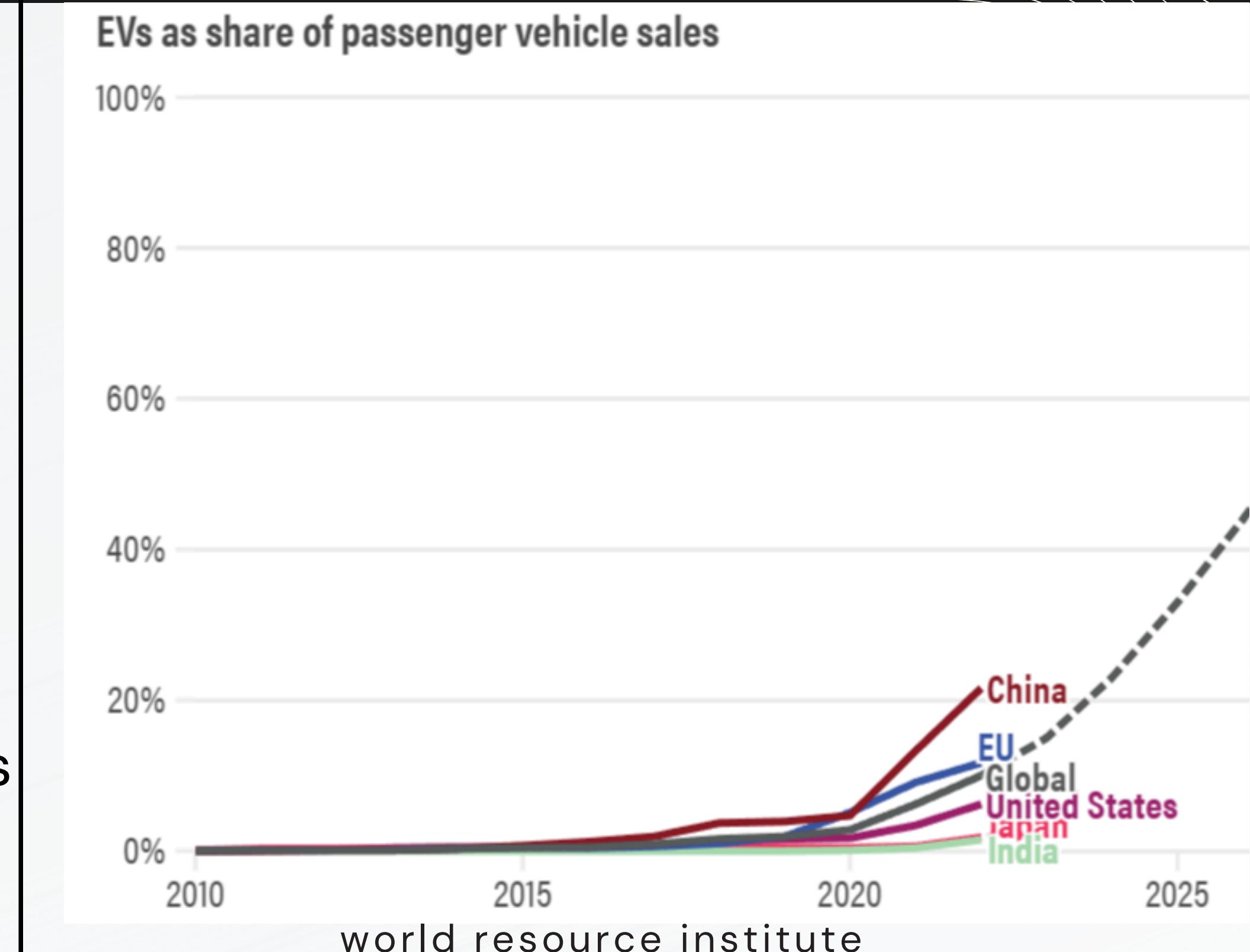
Sum of Electric Vehicle Registration Count by State



U.S Department of Energy

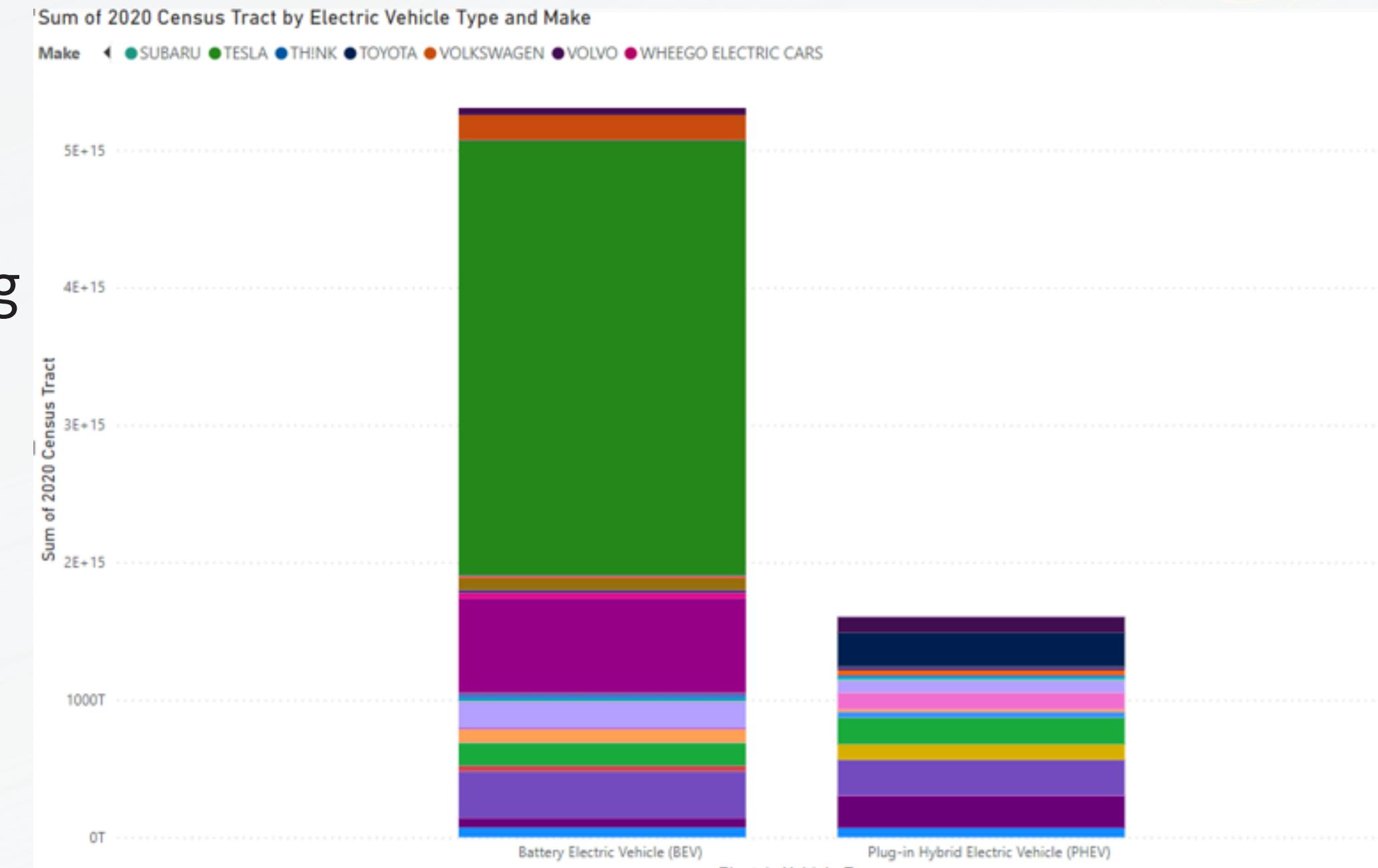
GLOBAL CONSUMER BASE

- China has the highest share and is above the global average sold along with the EU
- The U.S, India, and Japan are below the average meaning there is more market to share and there is higher competition along other types of vehicles



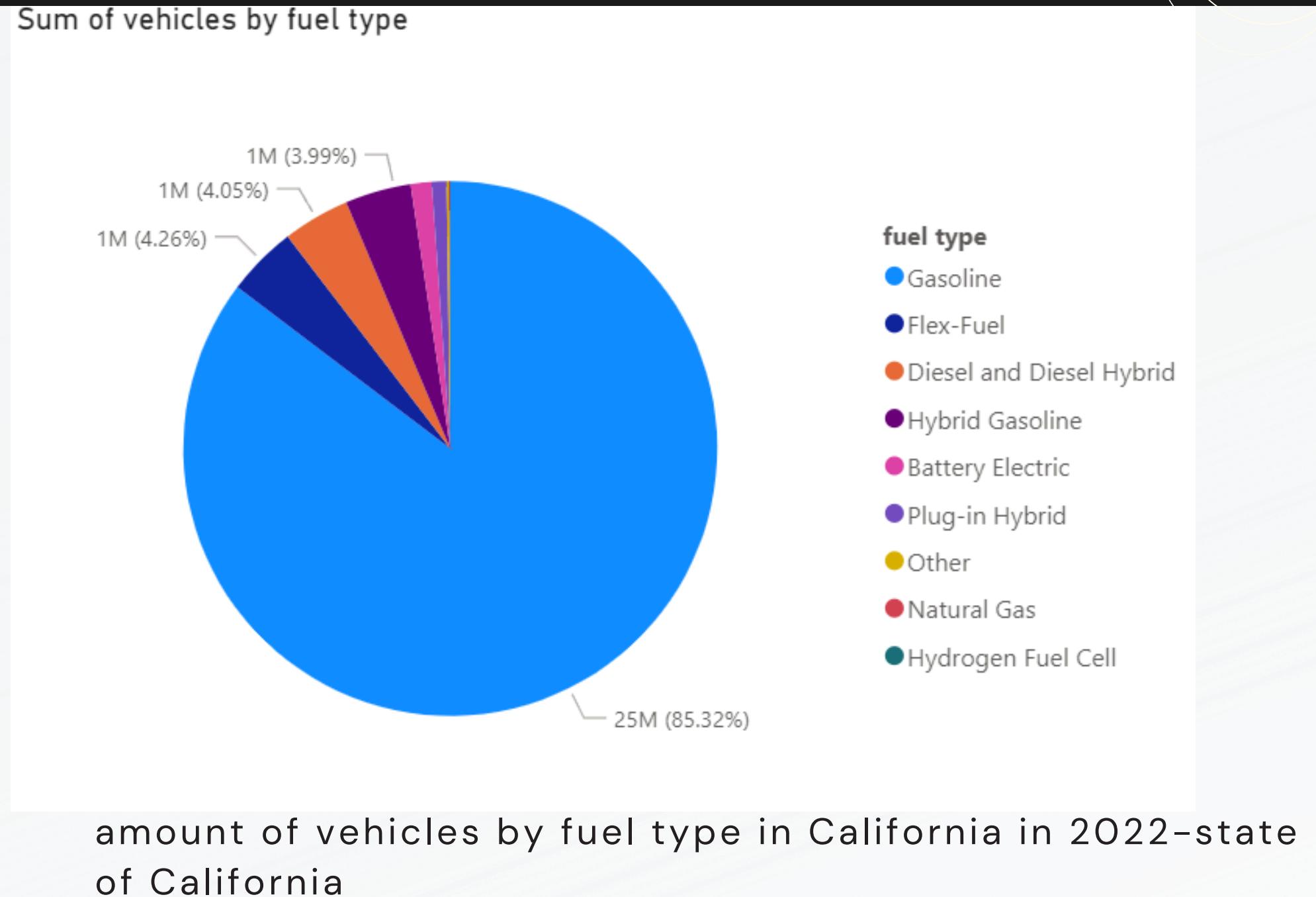
COMPETITION BY BRAND

- According to the State of Washington, Tesla is the most successful company producing fully electric vehicles while Toyota is the most successful company producing hybrid vehicles.



COMPETITION BY VEHICLE TYPE

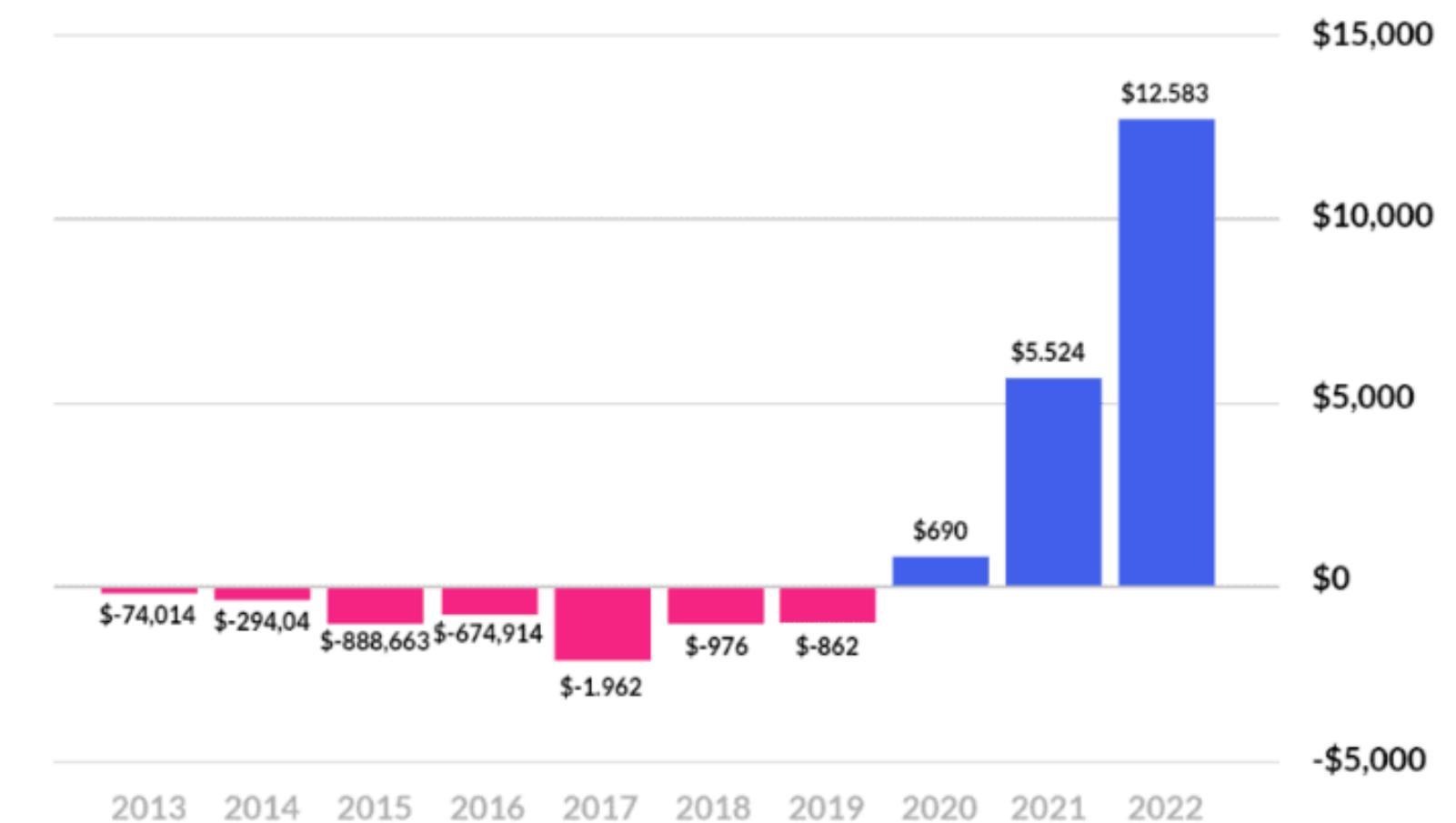
- Only one EV was in the the 2023 top selling US cars list according to CBC
- Gasoline cars remain the most popular choice of vehicle type
- Competition with gasoline cars must be considered when producing EVs



PROFITABILITY

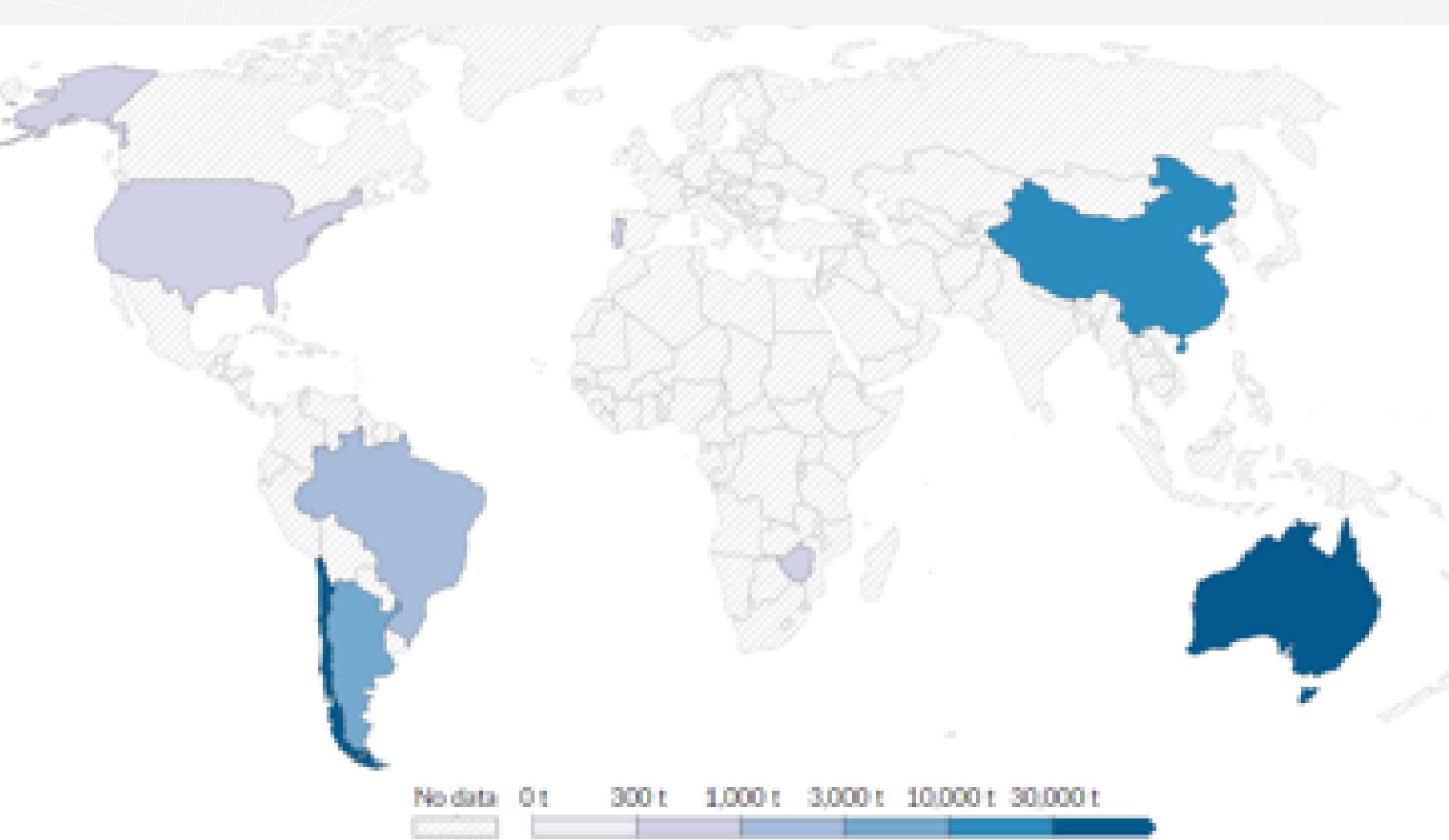
- Tesla has high profitability
- Ford is losing money per car it sells according to a reuters study
- In the short term EVs are unlikely to be profitable

T
TESLA PROFIT 2013 - 2022
(in million U.S. dollars)



buisnessmodelanalyst

SUPPLY CHAIN



World lithium reserves-ourworldindata.org

- Areas such as Australia and China are key areas for companies seeking to obtain materials

World mine production of cobalt, by country, 2022 (p)

Ranking	Country	Thousand tonnes
1	Democratic Republic of Congo	130,000
2	Indonesia	10,000
3	Russia	8,900
4	Australia	5,900
5	Philippines	3,800

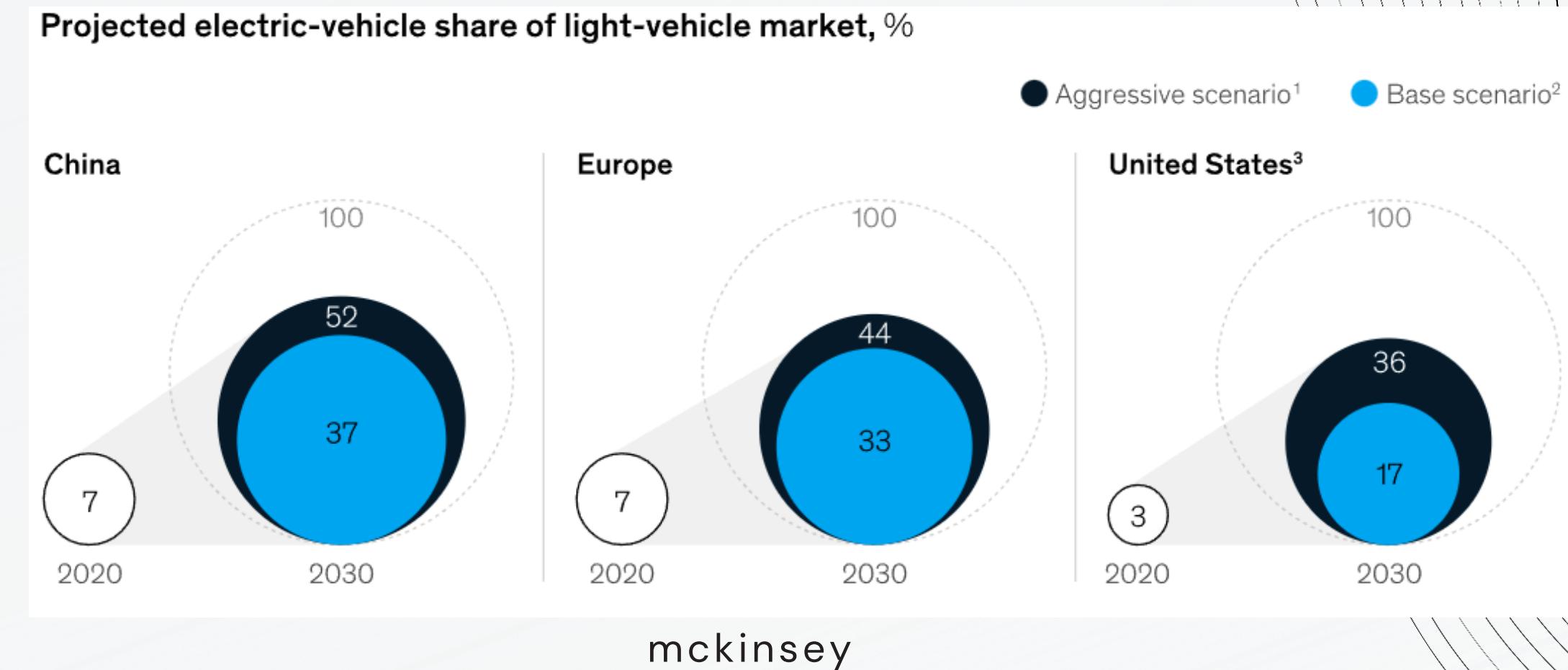
World cobalt reserves-Government of Canada

- Minerals such as cobalt and lithium are needed in order to produce batteries

APPEALING FACTORS

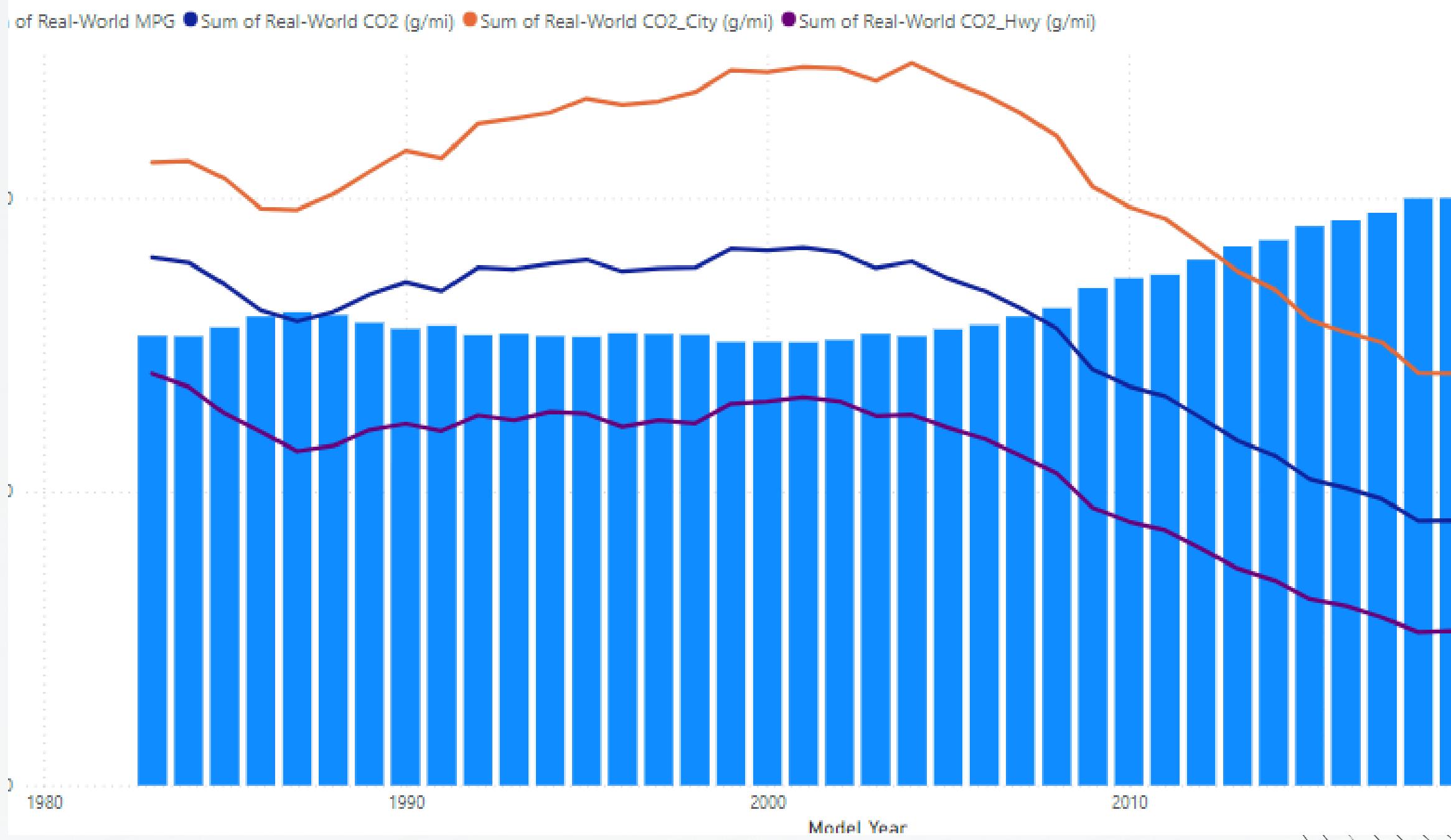
CAPTURE MARKET SHARE

- Losing market share if no EV's are offered from Sun Motors.
- Strategically aligning to technologies is crucial or else the company will lose employees and market shares .



REDUCED EMISSIONS

- Electric vehicles offer much less emissions
- Appeals to consumers who care about the environment
- Improves brand image
- Helps comply with potential environmental regulations

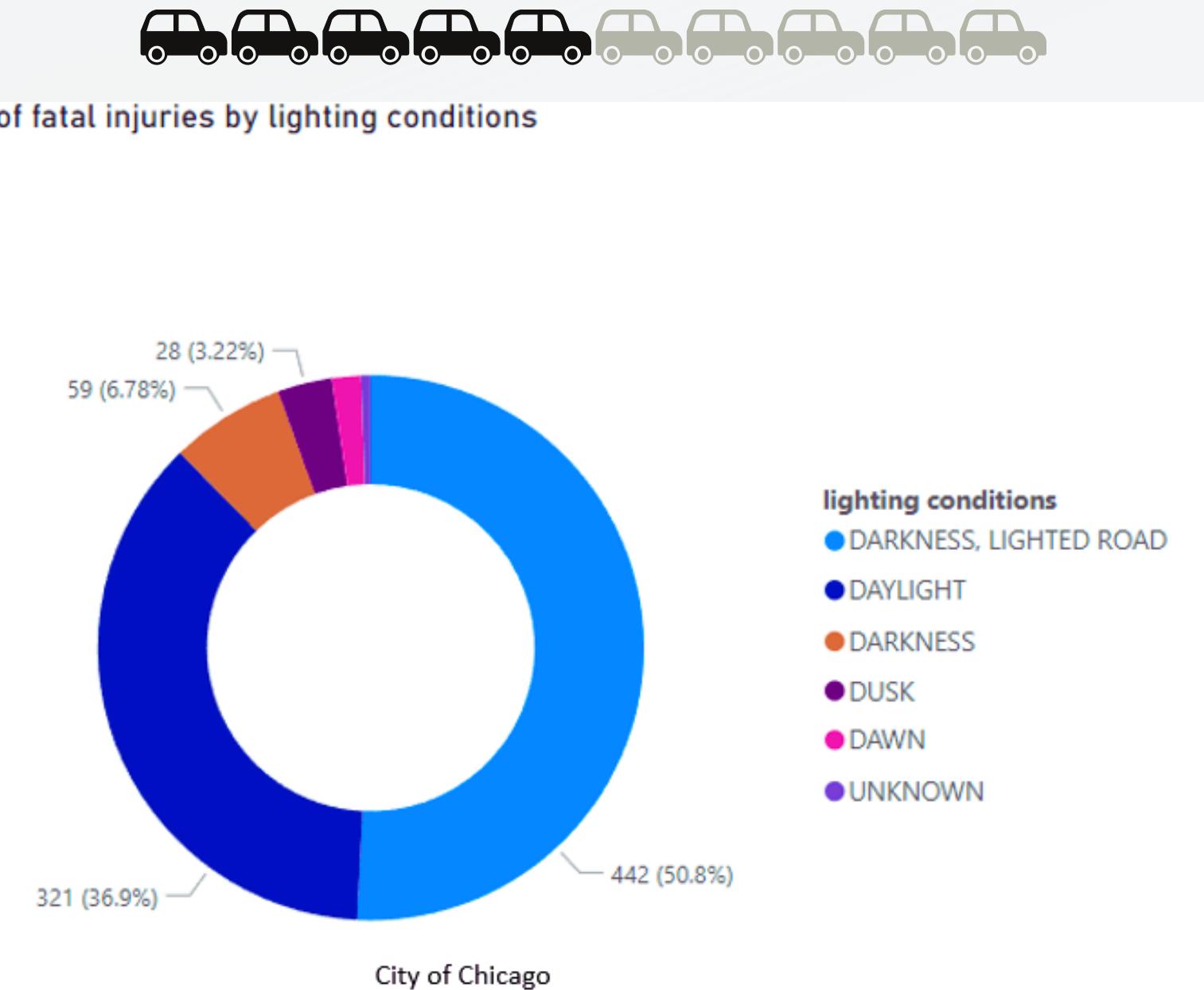


MPG vs carbon emissions-EPA automotive trends

SAFETY

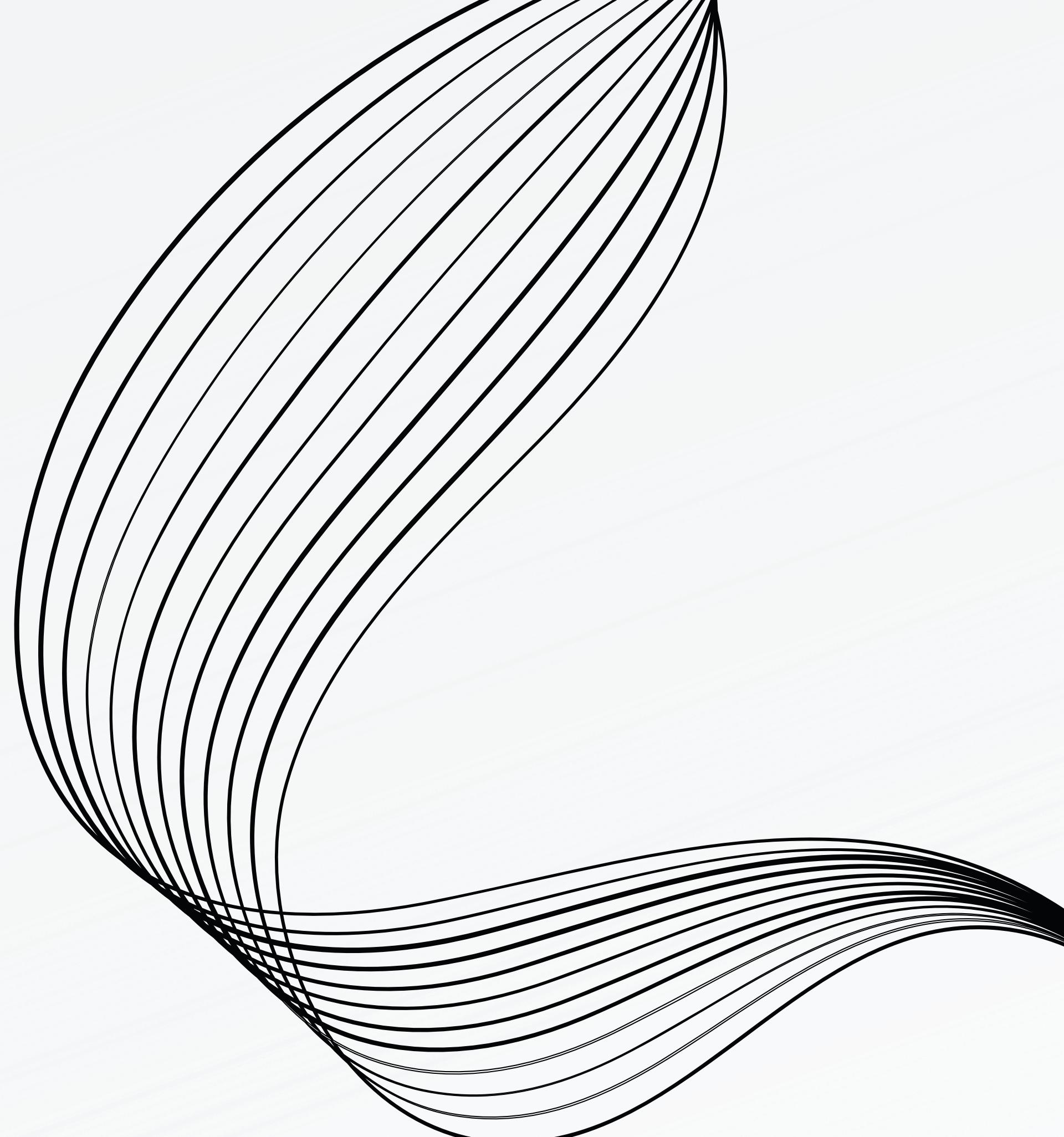
50% OF CRASHES DUE TO POOR LIGHTING

- Electric vehicles are sought out for safety reasons since they often come with advanced safety systems such as AI detection
- Human judgement is flawed in conditions such as poor lighting, which software can fix
- As we are innovating with EVs we should also improve safety



CONCLUSION

Yes, entering into the electric vehicle market is a viable option for Sun Motors and should be done so as a strategic investment



STRATEGY

As progressing, set goals to reduce carbon emissions to gradually improve brand image.

Secure agreement with companies for steady supplies of lithium and cobalt.
Utilize existing gasoline vehicle inventory

RESOURCES

Focusing on hybrid cars may be a good idea to ensure a transition for the short term. Develop versatile safety platform

HYBRID CARS

After multiple years of successful hybrid vehicles, and an established supply network, switch to fully electric vehicles , expand to foreign markets like India

FULLY ELECTRIC

THANK YOU