

## 1. Problem Background

- **Air pollution as a serious problem in China:** the two main reasons are pollution from **factory and transportation**[reference]. In China the government implemented many solutions and regulation to tackle this problem, for example limiting the factory production each year in order to limit the carbon emission [cite the regulation/policy briefly]. However, it is not enough, therefore transportation sector need to be concern as well. (transport)[how transport sector contribute to air pollution and carbon emission? Some data here]
- **Renewable Energy:** Our world energy resources like fossil fuel, gas or oil are limited. According to Tesla CEO Elon Musk, at 2014 oil & **gas** summit in **Norway** that such resources will not last long in upcoming century [it's ok to quote Musk's speech here but some more credible sources from big org or institute or expert is better]. Therefore, we require to find new clean and renewable energy and we are currently accelerating on this transition. [1]
- He also added in Inverse Media (2020) [1] that the clean energy transition will require at least 25 years include the fact the world stopped building fossil fuels by tomorrow. Electrek (2016) [2] also reported that by 2025, Norway will eliminate the gas-powered cars which approved by Elon Musk.
- As we can see these two issues have become major homework especially for China which is the most populated country in the world. There is one clear solution towards more sustainable, zero carbon emission and cleaner energy output which is the electric vehicle. Impact EV to CO2 [3], impact EV to Renewable – use elon musk perspective to reach more sustainable future, which he propose the EV as solution to it as transportation is essential nowadays.

## 2. EV market in China (Market analysis)

[consider a short SWOT analysis here, you may find useful summary of the market info from IBIS world database]

- In China the trend of EV has started since 2010, \*show data 2010-2020 sales.
- Speak the issue with slow charging problem, and lack of public charging station. Later give charging station data. If we analyse that on current period 2018-2020 it has significant increase on the public charging station. Why?
- Reason: from Government subsidies and many new start-up EV industry, also appearing. Elaborate the government subsidies in detail such as charging station and EV tax exemption using data. We can see how generous the China government to succeed the sustainable and decarbonization future. [gov subsidies is an important driving factor, I'm wondering other countries' gov policy, maybe a comparison here if the gap is big?]
- Beside government, the private EV company also need to give helping hands to the China EV market. Example companies in China, 小鹏 a very young and rising star in the Chinese electric vehicle industry provides free EV charging station (data), NIO and Aulton New Energy which are two main China operators of battery swapping station, provide the ready to use battery swapping service which still not famous yet. [good to see reasons from all parties along the supply chain]

3. Speculation Reasons why market develops rapidly also customer incentives (Market analysis 2)
  - Based on statista data [5], we can see tax rebates and subsidies is the highest with 63.25%. Support by, another statista data [6] – the main reason people chose EV than conventional cars, which put ‘tax rebates and subsidies’ second highest with almost 60%. However, the main reason to chose EV over conventional is the eco-friendly environment (less carbon and pollution).
  - Second main reason which motivate consumer is the “free or subsidies parking spot for EV”, then follow by the availability of charging station publicly and privately.
  - From here we can tell, government play huge part to China EV market and if private company could do similar or more innovative ways to attract customer such as the example we stated before, the market and sales in EV will surely rise in significant way. [can put this part as advice to the last suggestion part]
  - I could add related to cost and energy efficiency here!
4. Prediction for the sales in 2025.
  - Use the data from canals [7] and find more data related to future, or EV companies website that has future target in sustainable way.
5. Result opinion suggestion (conclusion)
  - How EV plays an important role in helping China achieve its carbon target? (restate the impact of EV to CO2)
  - What does the future of EV in China look like? (advice to China EV market based on data) [include more stakeholders, gov, companies, consumers... from different perspectives]
  - Any suggestion/challenge/opportunity for company who already in the market/or who want to join, how to be more competitive?

以去碳化为东风，全球资金正在涌向纯电动汽车(EV)相关初创企业。2020 年的投资额比 2019 年增长 14%，达到 127 亿美元，连续 5 年增长。调查显示，2020 年对“互联汽车”、“自动驾驶”、“MaaS(共享等出行服务)”和“电动化”等 4 个领域的投资额合计为 273 亿美元，比 2019 年减少 4%。其中，对电动化投资增加，面向自动驾驶的投资与上年持平，但对互联汽车和 MaaS 的投资减少

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