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FUTURE OF DRIVING

TESLA'S SELF DRIVING TECHNOLOGY

Digital Skills and Research Methods (BMSW4003_LON)

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Campus

INTRODUCTION

Tesla was founded in 2003 by a group of engineers who wanted to prove that people didn't need to compromise to drive electric. Today, Tesla not only builds all-electric vehicles but also their vehicles are delivered with Autopilot features and full self-driving capabilities. (Tesla, 2022)



BACKGROUND OF THE ORGANIZATION



Elon Musk's Roadster (Source: Ralph, 2017:online)

- In 2008 - the Roadster unveiled
- Followed by – [Model S](#)
- In 2015, Tesla expanded its product line with [Model X](#)
- Completing CEO Elon Musk's plan in 2016, Tesla introduced [Model 3](#)
- Soon after, Tesla released – [Tesla Semi](#).
- In 2019, Tesla unveiled [Model Y](#), a mid-size SUV and [Cybertruck](#)

(Source: Tesla, 2022)

- Tesla vehicles are produced at its factory in Fremont, California, and Gigafactory Shanghai.



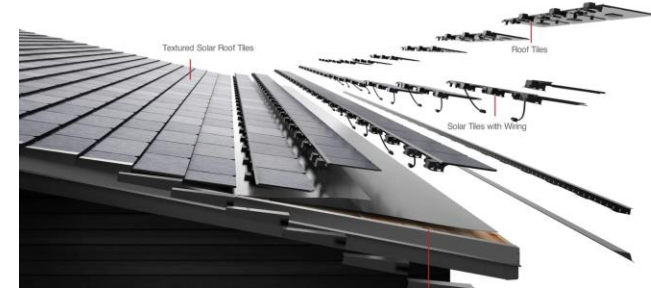
Picture 1: Shanghai's Gigafactory
(Source: Tesla, 2022:online)

- Tesla also manufactures a unique set of energy solutions, Powerwall, Powerpack and Solar Roof.



Picture 2: Accelerating Tesla's Safety Culture
(Source: Tesla, 2022:online)

- Their safety rate continues to improve while production ramps.



Picture 3: Tesla's new solar roof tiles
(Source : Lambert, 2021:online)



Musk's first hire for Tesla autopilot team (Source: Wire, 2022:online)

- This technology alone holds a treasure

- Tesla's Autopilot AI team shapes the future of autonomy of current and new generations of vehicles.



Tesla's advanced sensor coverage (Source: Tesla, 2022:online)

THE CHALLENGE(S) BEFORE THE INTRODUCTION OF MODERN TECHNOLOGY

- **Changing Leadership and Controversy**
- Tesla made significant changes to its leadership team in 2008.
- Eberhard resignation as CEO and become part of advisory board.
- Eberhard left the company October 2008.
- Tesla co-founders Eberhard and Tarpenning left the company completely shortly before it shipped its first car (Roadster Number 1) to Musk. Musk became CEO of the company shortly thereafter, and he fired 25% of the company's employees.



THE CHALLENGE(S) BEFORE THE INTRODUCTION OF MODERN TECHNOLOGY



- **Competitors in the Market:**
- Can Tesla become the best electric vehicle (EV) manufacturer in the entire world? Certainly, but high competition will continue to exist as well.
- OLD and BIG competitors
- Meanwhile, new manufacturers are entering the EV market.
- Other company with more advanced Technology

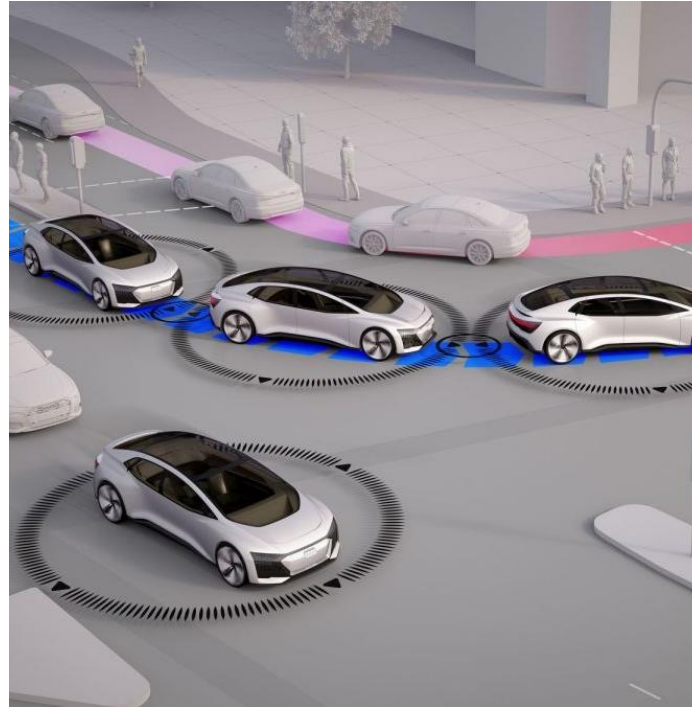
THE CHALLENGE(S) BEFORE THE INTRODUCTION OF MODERN TECHNOLOGY

- **Financial Issues**
- Tesla faced significant financial difficulties in 2009.
- Get the Loan.
- Sold 10% stakes.
- Short term capital concerns



INSIGHTS TO THE MODERN TECHNOLOGY INTRODUCED

An autopilot is a technology used to control an aircraft without constant 'hands-on'. The revolution of the autopilot in automotive is vastly growing. Most of the automotive companies are competing to achieve the driverless car.



INSIGHTS

The forward-facing camera is located on the top windshield. A computer inside the camera helps the car understand what obstacles are ahead of the car.



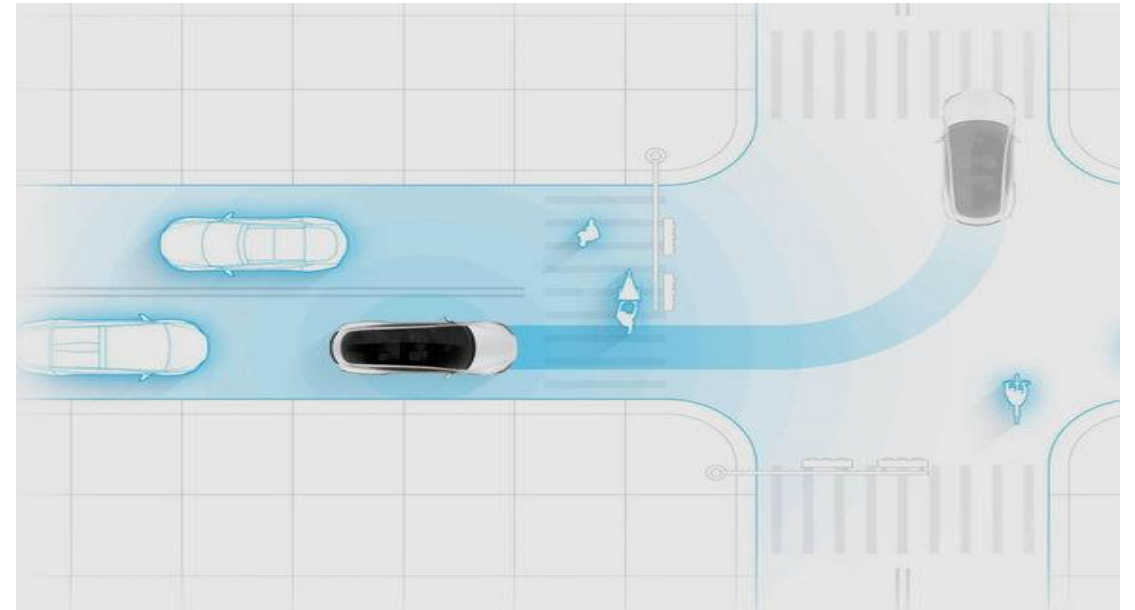
Source: Tesla.
com

Tesla's hunger for full and final length autopilot enhancing safety measures is on its way adding the latest features up to date.(AutoMotive Techonology,2020).



FULL SELF-DRIVING CAPABILITY

- **Traffic-Aware Cruise Control**
- **Autosteer**
- **Auto Lane Change**
- **Autopark**
- **Traffic and Stop Sign Control (Beta)**



Autopilot system has become the first U.S. fatality in a wreck involving a car in self-driving mode. (Long Island Business News, 2016)



- **5,000 Model 3 owners answered about Tesla's software for automated driving on highways and parking lots. More than 90% said the feature makes them safer.**
- 13% of owners say Autopilot has put them in a dangerous situation
- 28% say Autopilot has saved them from a dangerous situation.



	____satellite____	
Pure energy	safety	autopilot
Emergency contact	zero carbohydrate	informations

NEGATIVE IMPACTS

13



Soft virus	Terrorist attack	Hight costs	Unfuctional structural roads	Personal data
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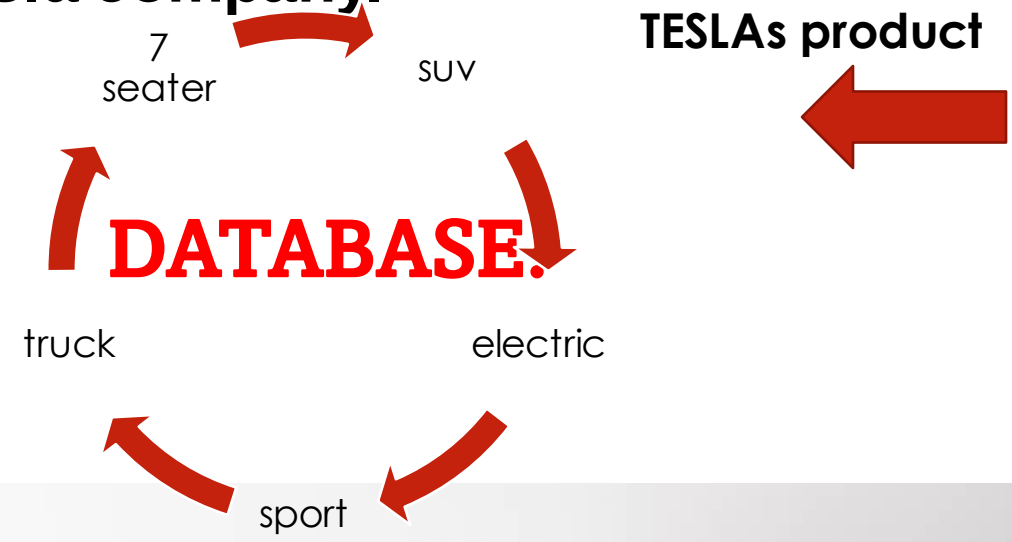
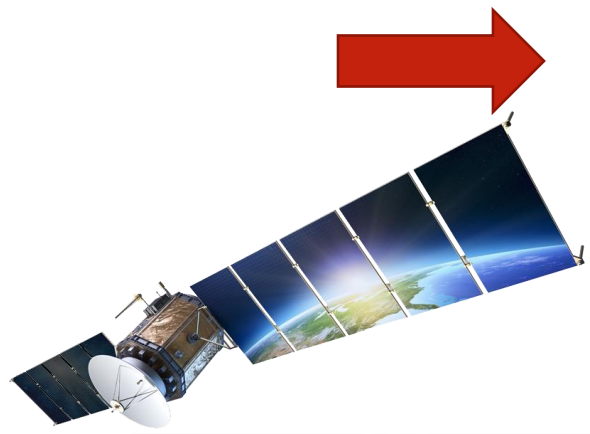
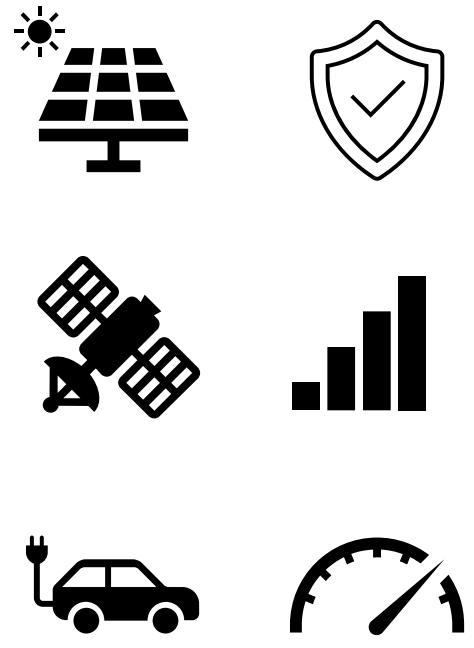
Tesla is not a car on our roads is a collector they collect every information and every single car share that information back to tesla industry

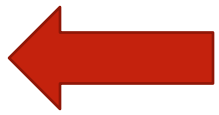
A tesla crush with autopilot on:

THE IMPACT OF THE MODERN TECHNOLOGY INTRODUCED

TESLA CARS~ pick up informations from every street* in every area* of every city* and send the informations to the headquarters computers at tesla company.

Speed 
safety 
→ Electric cars
→ trucks 



TESLA's product 



AND LESSONS THAT CAN BE DRAWN FROM THE CASE STUDY

- How Tesla changed the view of driving?
- How is Tesla getting more valued than the others competitors in the market?
- How insurance policy is affected by this technology?
- How does this technology works?

CONCLUSION

With some of the most modern factories on Earth, ambitious management, the implementation of cutting-edge technology and cloud-computing, Tesla continues to bring us closer to the Future of Driving.

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