

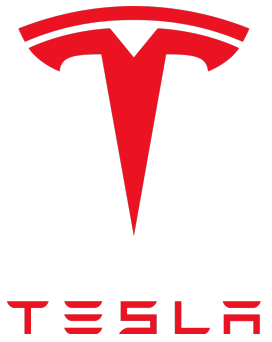


TESLA

# TESLA INC.

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Financial Independence Club  
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# COMPANY OVERVIEW

Tesla Inc. designs, develops, manufactures high performance, fully electric vehicles (EVs) and energy generation and storage systems such as solar technology and batteries. The company currently offers 3 models of EVs, namely the Model S, Model 3, and Model X. The company is also planning to begin production and sales of a fourth model called the Model Y.



Model S



Model 3



Model X



Model Y  
(Upcoming)



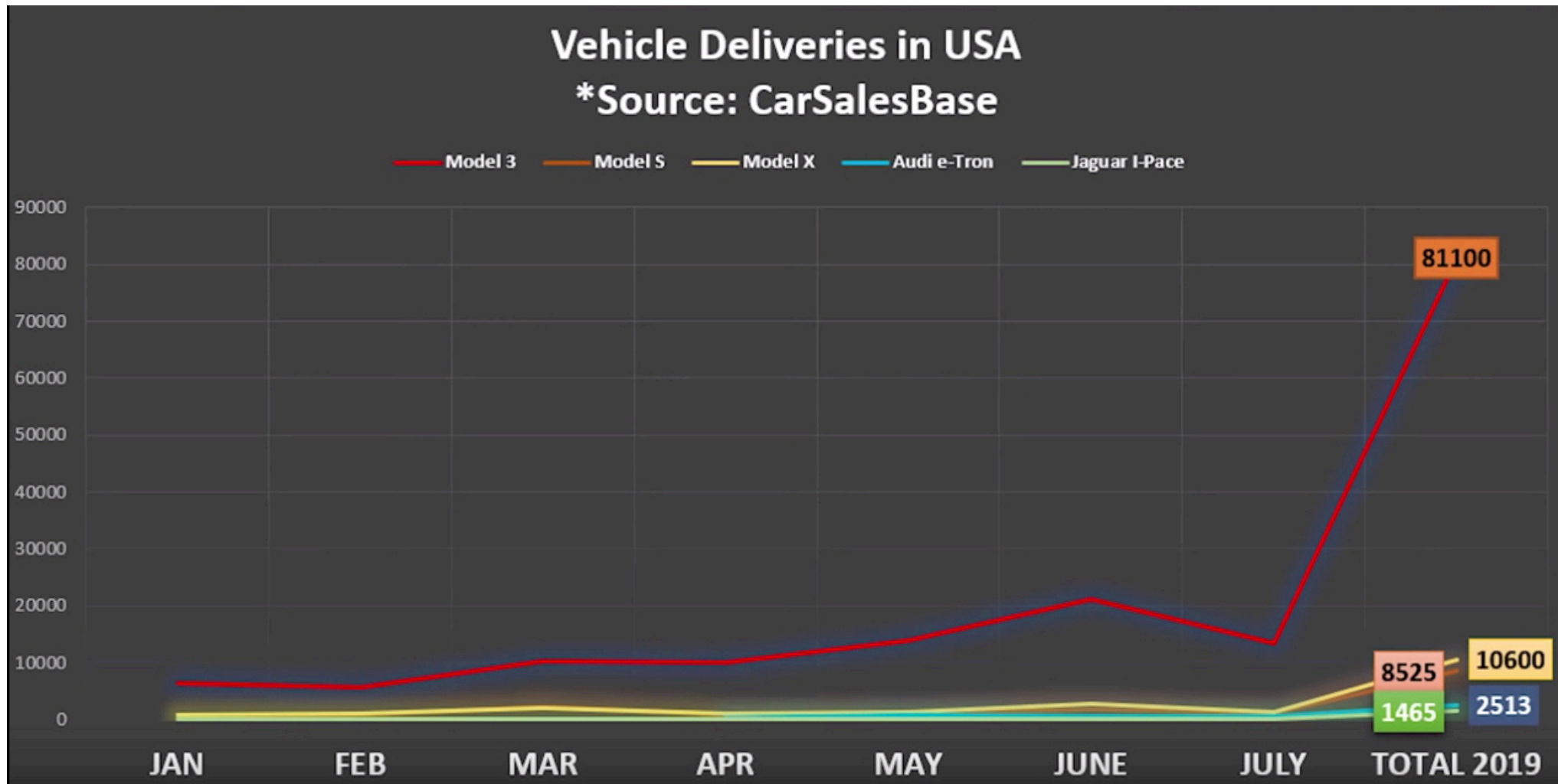
# PERFORMANCE ADVANTAGE

	Taycan Turbo	Taycan Turbo S	Tesla Model S Long Range	Tesla Model S Performance
MSRP	\$150,900	\$185,000	\$79,990	\$99,990
Battery Size	93.4 kWh	93.4 kWh	100 kWh	100 kWh
Range	236–279 mi (WLTP)	241–256 mi (WLTP)	370 mi (EPA)	345 mi (EPA)
Drive Type	All-wheel drive, dual motor	All-wheel drive, dual motor	All-wheel drive, dual motor	All-wheel drive, dual motor
Maximum DC Charging Capacity	270 kW	270 kW	Info Unavailable	Info Unavailable
Transmission	Single-speed front / Two-speed dog-ring rear	Single-speed front / Two-speed dog-ring rear	Single-speed fixed gear	Single-speed fixed gear
Battery Type	Lithium Ion Pouch configuration	Lithium Ion Pouch configuration	Lithium Ion cylindrical cells	Lithium Ion cylindrical cells
Max power	460 kW (617 HP)	460 kW (617 HP)	Info Unavailable	568 kW (762 HP)
Max torque	850 Nm	1,050 Nm	660 Nm	931 Nm
Top Speed	161 mph	161 mph	155 mph	163 mph
0 - 60 mph	3 seconds	2.6 seconds	3.2 seconds	2.4 seconds
Quarter Mile time	11.1 seconds	10.8 seconds	Info Unavailable	10.6 seconds *
Length	195.3 inches	195.3 inches	196 inches	196 inches
Width	77.4 inches	77.4 inches	77.3 inches	77.3 inches
Height	54.2 inches	54.2 inches	56.5 inches	56.5 inches
Wheelbase	114.1 inches	114.1 inches	116.5 inches	116.5 inches
Drag coefficient	0.22 Cd	0.25 Cd	0.23 Cd	0.23 Cd
Curb Weight	5,132 lbs	5,121 lbs	4,883 lbs	4941 lbs

Porsche Taycan Vs Tesla Model S (Sept 2019)



# DOMINANCE IN THE EV MARKET (AUG 2019)







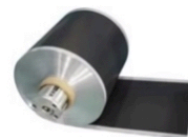
# GIGAFACTORY AND MAXWELL TECHNOLOGIES



Expected to be completed Q4 2019, begin production of cars Q1 or Q2 2020

## **Slide from 01/19 \$MXWL Investor Presentation**

Dry Battery Electrode: Completing Major Performance Milestones  
*Transformational Battery Technology Enabling Electric Vehicle Megatrend*



### **Energy Density:**

>300 Wh/kg Demonstrated with Path to >500Wh/kg identified

### **Extended Battery Life:**

Improved Durability; Extending Battery Life up to 2x

### **Cost Reduction:**

16x Production Capacity Density Increase;  
10-20%+ Cost Reduction versus State-of-the-Art Wet Electrodes

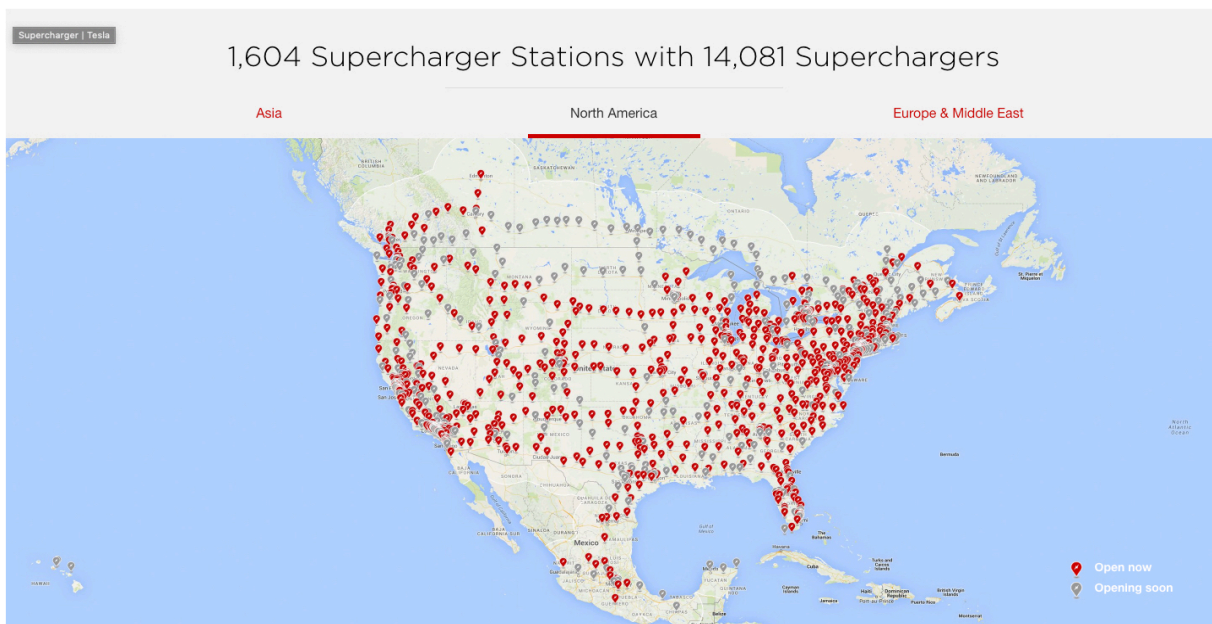
### **Technology Enablement & Environmentally Responsible:**

No Solvents, Next Gen Materials, Cobalt-Free, Solid State

Currently the best energy density for battery EVs is 246Wh/KG, dry electrode tech will enable a minimum of a 15% increase



# VERTICAL INTEGRATION



Over 1600 Supercharger stations as of Aug 2019

	Camera	Radar	Lidar
Detect Lanes	✓	✗	✗
Detect Cars	✓	✓	✓
Detect Traffic Signs/Lights	✓	✗	✗
Detect Humans	✓	✓/✗	✓

✓ Low Cost  
✓ Convenient Packaging  
✓ All applications in one system

✗ Poor signal on pedestrians  
✗ "Blind" to standing objects

✗ High cost of capable systems limits mass market potential  
✗ Low cost versions are limited in resolution

Comparison of Camera system Vs. LiDAR



# MACRO AND MICROECONOMIC FACTORS

## Macroeconomic factors:

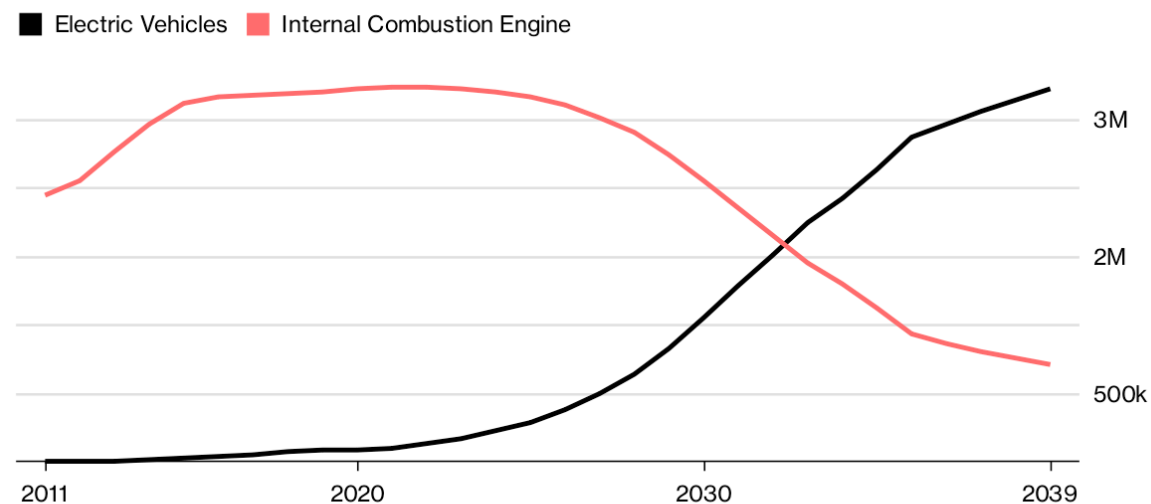
- Trade war with China → won 10% tariff reduction from Chinese government
- Growing trend of number of EVs vs. traditional ICE vehicles

## Microeconomic factors:

- Demand for Tesla Model 3 → record number of deliveries in Q1 2019
- Price for batteries decreasing, causing decrease in price for new Tesla vehicles

## Electric Will Overtake Gasoline and Diesel

By 2040 almost 80% of new car sales in the U.K. will be electric



Source: Bloomberg New Energy Finance

**Bloomberg**

\*Electric Vehicles vs. traditional ICE vehicles projection





# RISKS

1. Tesla remains unprofitable on a YoY basis
2. Increasing competition from traditional automakers and startups
3. Recessions tend to have a disproportionately large negative effect on automakers compared to other industries



# VALUATION

We will take a long term look at Tesla's opportunities and make some conservative estimates to try and evaluate what the company should be worth **today**.

Tesla solar roofs, battery packs = \$0

Autonomous taxi network total = \$200B → Tesla captures 1% = \$2B

Global EV market in 2025 (projection) = \$567B → Tesla captures 20% =  
**\$113.4B**

Total: \$115.4B

\*Assign \$0 on this area of the business for now

\*Note that this may be 5-10 years away

\*According to Allied Market Research

Aggregated and discounted to 2019 dollars for 5 years with rate of 3% =  
\$99.55B = ~\$100B

Data collected and other misc. items like patents, brand etc. = \$20B

Total = \$120B

Current valuation (Market cap, Sept 2019) = ~\$40B

Current Share price (Sept 8 2019) = \$227.45 per share

Price target = ~\$680 per share