

Tesla Motors (in 2011) and the U.S. Auto Industry (Case B)

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Tesla Motors' Company Overview

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- Incorporated in July 2003 by Martin Eberhard and Marc Tarpenning
- Named after the genius electrical engineer, Nikola Tesla
- Tesla's first vehicle, the Tesla Roadster, introduced in 2008, was powered by an AC motor that descended directly from Nikola Tesla's original 1882 design

Financing Early Operations Continued; 2009

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- May: Daimler AG acquires 10% equity stake in Tesla for \$50 million, strategic partnership to accelerate the development of Tesla's lithium-ion battery and electric drive train technologies to collaborate on electric vehicles being developed at Mercedes.
- July: Abu Dhabi's Abud Investments purchases 40 percent of Daimler's ownership in Tesla
- June: Tesla received \$465 million in low interest loans from US Department of Energy (DOE), part of DOE's \$25 billion Advanced Technology Vehicle Manufacturing Program, created in 2007 by the Bush administration
- Tesla intended to use \$365 million for production engineering and assembly of the forthcoming Model S and \$100 million for a powertrain manufacturing plant that would supply all electric powertrain solutions to other automakers and help accelerate the availability of low-cost, mass-market electric vehicles
- September: Tesla raised \$62.5 million from Daimler, Ford Capital Partners, and Abud Investments to open additional sales and service centers

Financing Early Operations

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- Roadster financing rounds
- Round 1 - Feb 2006, \$6.5 million. On a 10% conversion to 20,000 shares, assumed purchase of Chairman of the Board at 1000 shares
- Round 2 - Oct 2006, \$10 million. Mapping from Musk and other investors
- Round 3 - May 2007, \$4.5 million. Separate round to high tech investors
- Round 4 - Feb 2008, \$10 million
- All of the \$40 million in financing raised over the first two financing rounds. Over \$10 million invested in R&D, making the company's capital structure



Financing Early Operations Continued; Going Public

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- In June 2010, Tesla raised \$200 million public company raising \$200 million via IPO of 20,000,000 shares of common stock at a price of \$10 per share
- The share began trading on Tuesday, June 29th, 2010 in the NASDAQ market for a closing price of \$24
- Tesla became the first electric vehicle company to go public, since the first electric car, the Edison Electric Light Company, in October 1882. Tesla completed a follow-on offering of 17.1 million shares, raising a total of \$202.5 million

A broad differentiation strategy.

- Tesla Motors goal is to manufacture premium quality, high performance electric vehicles to appeal to existing customers and accelerate the overall transition from carbon-producing, gasoline-powered vehicles to energy-efficient, environmentally responsible electric vehicles.
- A broad differentiation strategy allows unique product attributes that a wide range of buyers find appealing and are willing to pay for
- Customers in other countries, currently in the Tesla (top-1) - road in the terms of valuation
- Having a competitive advantage allows a company to:
 - Command a premium price for its product
 - Increase its sales share in the market
 - Gain faster growth in its brand
- In order to be successful a broad differentiation strategy company should focus on the key value drivers:
 - Creating product features and performance attributes that appeal to a wide range of buyers
 - Improve customer service and after sales services, focused to provide excellent B2C solutions
 - Solve for innovation and technological advances
 - Product excellence: quality management, process marketing and brand building activities
 - Seek out high quality inputs
 - Employee human resource management activities that improve the skills, expertise, and knowledge of company personnel

Recent Financial Performance

Tesla posted Q3 net \$44.4 million in net profit, a 10% increase from Q2 net profit of \$40.1 million. Tesla's revenue for Q3 was \$1.2 billion, an increase from Q2 revenue of \$1.1 billion. Tesla's gross profit for Q3 was \$300 million, an increase from Q2 gross profit of \$280 million. Tesla's operating income for Q3 was \$100 million, an increase from Q2 operating income of \$90 million. Tesla's cash and cash equivalents for Q3 were \$1.5 billion, an increase from Q2 cash and cash equivalents of \$1.4 billion.

Overview

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- 1. Company background
- 2. Tesla's design process for the Roadster and other highly regarded models of electric vehicles
- 3. Overview of Tesla's role in the world of electric vehicles
- 4. The electric vehicle beyond the global automotive industry

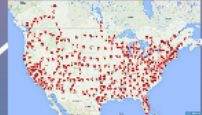
Elon Musk

- Born in South Africa, began himself computer programming and at age 12, sold code for a video game he invented for \$500
- Earned degrees in business and physics from University of Pennsylvania
- Focused on two important matters: the world's need for an environmentally clean method of transportation and an idea that would help solve the world's energy crisis
- First entrepreneurial venture was Zipcar, his brother, Kimbal, sold it to the University of Chicago for \$20 million in cash and \$24 million in stock options in 1999
- After in 1999, Musk co-founded X.com, an online payment company, and one year later acquired PayPal and merged it with other companies PayPal and sold it to eBay for \$1.5 billion in 2002
- June 2003, Musk founded SpaceX: develop and manufacture space launch vehicles
- Musk indicated the need involved in California, his solar system design company, and Tesla Motors, "because I'm concerned about the environment," while SpaceX is attempting to help us work toward transitioning to longer-lasting, low-carbon fuels and becoming a multi-planetary species"
- In 2004, Musk's first venture as Tesla CEO was \$3,200, California's minimum wage law, however, he was accepting only \$1 a day

Management Changes

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- August 2007, the co-founder and CEO, Martin Eberhard, stepped down as CEO and became chairman of the board
- In October 2007, Tesla completed a follow-on offering of 17.1 million shares, raising a total of \$202.5 million



Supply Chain Strategy - Tesla's strategy is to source components from suppliers of the auto industry rather than to set up its own supply chain

Distribution Strategy - Tesla's distribution strategy is to sell directly to its customers rather than through a network of dealerships

Production Strategy - Tesla's production strategy is to use a combination of traditional manufacturing techniques and advanced manufacturing techniques to produce electric vehicles

Research and Development Strategy - Tesla's R&D strategy is to focus on developing new technologies and products that will give it a competitive advantage in the electric vehicle market

Marketing Strategy - Tesla's marketing strategy is to use a combination of traditional marketing techniques and social media to reach its target audience

Wells Fargo

Wells Fargo is a leading provider of financial services, including auto financing. Tesla has a partnership with Wells Fargo to provide financing for its vehicles. Wells Fargo offers a variety of financing options, including lease-to-own, lease with purchase, and traditional auto loans. Tesla's partnership with Wells Fargo allows customers to finance their Tesla vehicles through a trusted and established financial institution.

Strategic Partnerships

Panasonic

Panasonic is a leading manufacturer of lithium-ion batteries. Tesla has a partnership with Panasonic to provide batteries for its vehicles. Panasonic's batteries are known for their high energy density and long life cycle. Tesla's partnership with Panasonic allows customers to benefit from the advanced battery technology that Panasonic has developed.

Strategic Partnerships

TOYOTA

TOYOTA is a leading manufacturer of internal combustion engines. Tesla has a partnership with Toyota to provide engines for its vehicles. Toyota's engines are known for their reliability and performance. Tesla's partnership with Toyota allows customers to benefit from the advanced engine technology that Toyota has developed.

Strategic Partnerships

DAIMLER

DAIMLER is a leading manufacturer of luxury cars. Tesla has a partnership with Daimler to provide cars for its vehicles. Daimler's cars are known for their luxury and performance. Tesla's partnership with Daimler allows customers to benefit from the advanced car technology that Daimler has developed.



Tesla's Strategy

- **Technology Continued:**
 - Battery Pack: Tesla had an internal battery cell testing lab and assembled extensive performance database of many lithium ion cell vendors and chemistry types. Purchased large quantities of lithium ion at low costs due to overproduction based on hype of electric car growth.
 - Power Electronics: two primary functions.
 - Induction Motors: Custom designed three phase alternating current induction motors for powertrain system.
 - Gearbox: combined low mass with high efficiency and could match the speed and torque capabilities (elimination of gear changes enhanced rapid acceleration characteristics of the company vehicles).
 - Control Software: Numerous microprocessors and sophisticated software.

Year	Revenue	Net Income	Operating Income	EPS
2003	1,000,000			
2004	2,000,000			
2005	3,000,000			
2006	5,000,000			
2007	10,000,000			
2008	20,000,000			
2009	40,000,000			
2010	100,000,000			
2011	1,200,000,000			

Strategic Partnerships

TOYOTA

Strategic Partnerships

Panasonic

Strategic Partnerships

DAIMLER

Strategic Partnerships

WELLS FARGO

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Financing Early Operations Continued; 2009

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Recent Financial Performance

Tesla ended 2011 with \$444.8 million in cash and cash equivalents and current liabilities of \$102.2 million. Over the rest of the first quarter, Tesla had capital expenditures of \$21.6 million in Q1, an increase of 50% compared to Q4 2010. Tesla's revenue was \$10.5 million in Q1, an increase of 100% compared to Q4 2010. Tesla's gross profit was \$1.1 million in Q1, an increase of 100% compared to Q4 2010. Tesla's operating income was \$0.1 million in Q1, an increase of 100% compared to Q4 2010. Tesla's net income was \$0.1 million in Q1, an increase of 100% compared to Q4 2010. Tesla's capital expenditures in Q1 were \$21.6 million, an increase of 50% compared to Q4 2010.

Overview

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- Company Mission
- Tesla's Strategy
- Questions that define the value of the product
- The electric vehicle business of the global automotive industry



Tesla's Strategy

Technology Continued:

- Battery Pack:** Tesla had an internal battery cell testing lab and assembled extensive performance database of many lithium ion cell vendors and chemistry types. Purchased large quantities of lithium ion at low costs due to overproduction based on hype of electric car growth.
- Power Electronics:** two primary functions.
- Induction Motors:** Custom designed three phase alternating current induction motors for powertrain system.
- Gearbox:** combined low mass with high efficiency and could match the speed and torque capabilities (elimination of gear changes enhanced rapid acceleration characteristics of the company vehicles).
- Control Software:** Numerous microprocessors and sophisticated software.

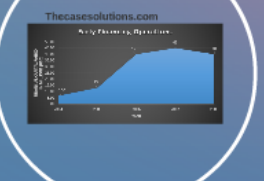
Elon Musk

- Born in South Africa, spent most of computer programming and age 12, self code for a video game he created for 1997
- Completed degrees in business and physics from University of Pennsylvania
- Focused on two important markets: the world's need for an environmentally clean method of transportation and an idea that a need for good IT services could overcome another planet
- First entrepreneurial venture was Zipcar with his brother, Martin, which sold by General Computer in 2007 million in cash and 200 million in stock options in 2008
- Able to raise \$10M in venture capital, an online payment company, and one year later acquired PayPal and sold it for \$1.5 billion in 2002
- 2008-2009: Start Tesla Motors to develop and manufacture mass produced vehicles
- Musk finished the first prototype in 2006. His initial system design company, called Tesla Motors, "because I'm concerned about the environment," while "SpaceX is about trying to help us work toward colonizing the farthest reaches of a permanent base and becoming a multiplanetary species."
- In 2014, Elon Musk's stake in Tesla fell as Tesla CEO was \$13.2B, Musk's stake in Tesla was \$1.2B, Musk's stake in Tesla was \$1.2B, Musk's stake in Tesla was \$1.2B.

Financing Early Operations

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- First financing round:
 - Round 1 - Feb 2004, \$2.5 million. One half million for 20% stake, remainder for 20% stake of the board of directors
 - Round 2 - Feb 2005, \$1.5 million. Half million for 10% stake, remainder for 10% stake of the board of directors
 - Round 3 - May 2007, \$1.5 million. One million for 10% stake, remainder for 10% stake of the board of directors
 - Round 4 - May 2007, \$1.5 million. One million for 10% stake, remainder for 10% stake of the board of directors
 - Round 5 - Feb 2008, \$1.5 million. One million for 10% stake, remainder for 10% stake of the board of directors
 - Round 6 - Feb 2008, \$1.5 million. One million for 10% stake, remainder for 10% stake of the board of directors



Financing Early Operations Continued; Going Public

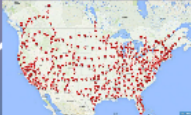
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- In June 2010, Tesla Motors had an IPO, raising \$200 million with an IPO of 23,500,000 shares at a price of \$8.50 per share.
- In October 2010, Tesla completed a follow-on offering of 7.5 million shares, raising an additional \$63.75 million.

Management Changes

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- Elon Musk stepped down as CEO in June 2008, replaced by Martin Eberhard.
- In October 2008, Musk returned as CEO, replacing Eberhard.
- In February 2009, Musk stepped down as CEO, replaced by Martin Eberhard.
- In June 2009, Musk returned as CEO, replacing Eberhard.
- In October 2009, Musk stepped down as CEO, replaced by Martin Eberhard.
- In February 2010, Musk returned as CEO, replacing Eberhard.
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- In October 2011, Musk stepped down as CEO, replaced by Martin Eberhard.
- In February 2012, Musk returned as CEO, replacing Eberhard.



A broad differentiation strategy.

Tesla's mission goal is to manufacture premium-quality, high-performance electric vehicles capable of driving customer excitement and accelerating the world's transition from carbon-producing, gasoline-powered vehicles to energy-efficient, environmentally responsible electric vehicles.

- A broad differentiation strategy allows unique products and services that satisfy target buyers' self-identifying and self-worth by paying to pay for themselves in other customers' identifying their needs, wants, or needs in the terms of substitution
- Healthy, accessible differentiation allows a company to:
 - Command a premium price for its product
 - Improve unit sales during the differentiation
 - Gain loyalty to its brand
- In order to be successful in broad differentiation strategy a company should focus on the key value drivers:
 - Creating product features and performance attributes that appeal to a wide target of buyers
 - Improve product features or add with services
 - Improve product service and D.C. location
 - Set up for innovation and technological advances
 - Product availability, quality, availability
 - Increase marketing and brand-building activities
 - Good and high quality, reach
 - Emphasize human needs or management activities that improve the self-identifying, and knowledge of company product

Issues of Regulatory Credits

Regulatory credits are a key component of the automotive industry's financial structure. They are generated by manufacturers that produce vehicles that exceed the industry's average fuel economy and emissions standards. These credits can be sold to manufacturers that are unable to meet the standards on their own. Tesla's production of electric vehicles, which have zero tailpipe emissions, has created a significant amount of regulatory credits. This has been a major source of revenue for Tesla, especially in the early years of its production. However, the value of these credits has fluctuated significantly over time due to changes in government regulations and the overall market for these credits.

Strategic Partnerships

Panasonic

Tesla and Panasonic have a strategic partnership for the production of lithium-ion battery packs for Tesla's electric vehicles. This partnership has been crucial for Tesla's ability to scale its production and reduce the cost of its battery packs. Panasonic has provided Tesla with access to its advanced battery technology and manufacturing capabilities, while Tesla has provided Panasonic with a large and growing market for its battery packs. This partnership has been a key factor in Tesla's success in the electric vehicle market.

Private Guarantee Program

usbank

US Bank has a private guarantee program for Tesla's electric vehicles. This program provides Tesla's customers with a guarantee that their vehicles will be covered by US Bank's insurance policy. This is a significant benefit for Tesla's customers, as it provides them with the same level of insurance coverage as they would receive for a traditional gasoline-powered vehicle. This program has helped to increase Tesla's sales and customer loyalty, as it has provided a key differentiator for Tesla's vehicles in the market.

Strategic Partnerships

TOYOTA

Tesla and Toyota have a strategic partnership for the development of a joint electric vehicle platform. This partnership has been a key factor in Tesla's ability to reduce the cost of its electric vehicles and increase its production volume. Toyota has provided Tesla with access to its advanced battery technology and manufacturing capabilities, while Tesla has provided Toyota with a large and growing market for its battery packs. This partnership has been a key factor in Tesla's success in the electric vehicle market.

Strategic Partnerships

DAIMLER

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Year	Revenue	Operating Income	Net Income	Capital Expenditures
2004	0.5	0.0	0.0	0.0
2005	0.8	0.0	0.0	0.0
2006	1.2	0.0	0.0	0.0
2007	1.5	0.0	0.0	0.0
2008	2.0	0.0	0.0	0.0
2009	2.5	0.0	0.0	0.0
2010	3.5	0.0	0.0	0.0
2011	5.0	0.0	0.0	0.0

Strategic Partnerships

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Overview

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1. Company Background
2. Tesla's Strategy to become the world's biggest and most highly regarded producer of electric vehicles
3. Questions arise about the safety of the Model S battery pack
4. The electric vehicle segment of the global automotive industry

Tesla Motors' Company Overview

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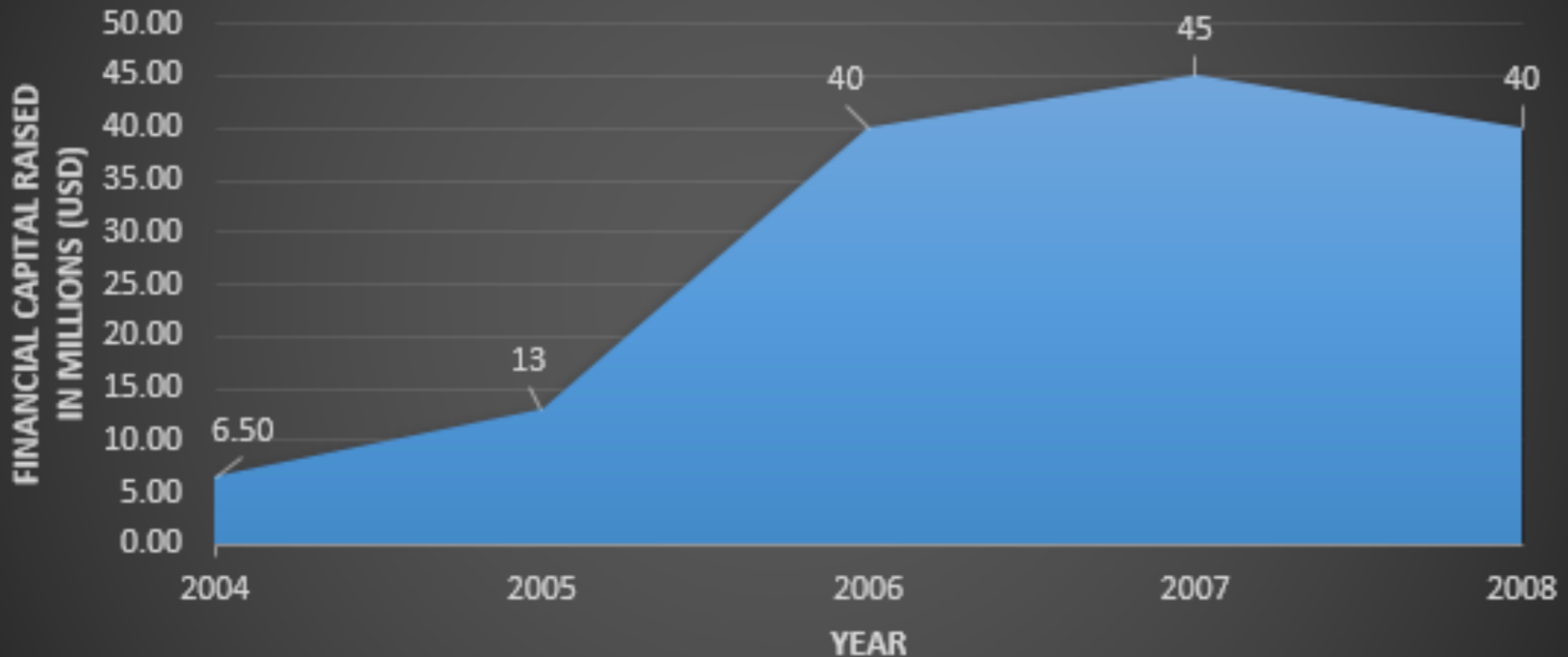
Financing Early Operations

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- First five financing rounds
 - Round 1 - Feb 2004, \$6.5 million. Elon Musk accounts for \$6.35 million, assumes position of Chairman of the Board of Directors
 - Round 2 - \$13 million from Musk and three private equity investment groups
 - Round 3 - May 2006, \$40 million. Majority from Musk and the Technology Partners investment group, included contributions from Google's Sergey Brin and Larry Page, and eBay president Jeff Skoll
 - Round 4 - May 2007, \$45 million. Spent quickly due to high R&D costs
 - Round 5 - Feb 2008, \$40 million
- Of the \$145 million in investment capital raised in the first five financing rounds, Elon Musk contributed \$74 million, making him the company's largest shareholder

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Early Financing Operations



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Financing Early Operations Continued; 2009

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 - Tesla intended to use \$365 million for production engineering and assembly of the forthcoming Model S and \$100 million for a powertrain manufacturing plant that would supply all-electric powertrain solutions to other automakers and help accelerate the availability of low-cost, mass-market electric vehicles
- September- Tesla raised \$82.5 million from Daimler, Fjord Capital Partners, and Aabar Investments to open additional sales and service centers

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Financing Early Operations Continued; Going Public

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- In June 2010, Tesla Motors became a public company, raising \$226 million with an IPO of 13,300,000 shares of common stock sold at a price of \$17 per share
- Its shares began trading on Tuesday, June 29th, 2010 on the NASDAQ under the ticker symbol "TSLA"
- Tesla Motors was the first American car company to go public since the Ford Motor Company's IPO in 1956
- In October 2012, Tesla completed a follow-on offering of 7.97 million shares, receiving net proceeds of \$222.1 million

Management Changes

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- August 2007, due to production delays, Martin Eberhard was ousted as CEO
- Ze'ev Drori, an Israeli-born American technology entrepreneur, is named CEO in November 2007
- Drori conducted a performance review of the company's 250+ employees and proceeded to lay off roughly 10 percent
- Elon Musk was named CEO, while continuing to serve as Chairman of the Board of Directors, in October 2008
- By January 2009, the Tesla had raised \$187 million and delivered 147 cars, Musk declared the company would be cash-flow positive by mid-2009