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## Overview of Service Design in the Performing Arts

### Tesla Motors' Company Overview

- Incorporated in July 2003 by Martin Eberhard and Marc Tarpening
- 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

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### Financing Early Operations

- First five financing years
- Round 1 - Feb 2004, \$4.5 million. Disbursement accounts for the 100,000 shares owned by Eberhard and Tarpening
- Round 2 - \$1.2 million from Musk and five other early investors
- Round 3 - Mar 2005, \$1.8 million. Stage from Musk and the technology partners. Includes convertible notes
- Round 4 - May 2007, \$1.1 million. Special equity class (high yield notes)
- Round 5 - Feb 2008, \$1.6 million. Offered to Musk when management was frustrated in the first five financing rounds. Disbursement of \$1 million, leaving the company's largest shareholder

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### Financing Early Operations Continued; 2009

- 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 in collaboration with Mercedes
- July - Abu Dhabi's Abjar 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 \$165 million for production engineering and assembly of the forthcoming Model S and \$300 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, Ford Capital Partners, and Abjar Investments to open additional sales and service centers

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### Financing Early Operations Continued; Going Public

- 14 June 2010 - Tesla raised \$100 million in public offering raising \$100 million with an IPO of 23.3 million shares at a price of \$4.25 per share
- 15 June 2010 - Tesla raised \$100 million in public offering raising \$100 million with an IPO of 23.3 million shares at a price of \$4.25 per share
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### Management Changes

- High profile executive changes
- 15 October 2010 - Tesla raised \$100 million in public offering raising \$100 million with an IPO of 23.3 million shares at a price of \$4.25 per share
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### 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, zero-emissions, zero-pollution electric vehicles.
- A broad differentiation strategy allows Tesla to produce vehicles that a wide range of buyers find appealing and are willing to pay for.
- Challenges to other customers, currently that Tesla faces - all roads in the terms of differentiation
- Having a competitive advantage allows a company to:
  - Command a premium price for its product
  - Improve its margins due to its differentiation
  - Gain faster loyalty to its brand
- In order to be successful a broad differentiation strategy company should focus on the key value drivers:
  - Creating product benefits and performance attributes that appeal to a wide range of buyers
  - Improving customer service and after sales services
  - Investing in production related R & D activities
  - Seeking for innovation and technological advances
  - Protecting customer loyalty management
  - Increasing marketing and brand building activities
  - Seeking high quality inputs
  - Employing human resource management activities that improve the skills, expertise, and knowledge of company personnel

### Recent Financial Performance

- Tesla posted 2012 net \$44.4 million in cash and cash equivalents, an increase of \$50.2 million from the year ended 2011 quarter
- Tesla had capital expenditures of \$25.4 million in 2012, an increase of 25% compared to 2011
- Tesla's operating profit was \$10.1 million, an increase of 100% compared to 2011
- Tesla's operating margin was 10.1%
- Tesla's operating margin was 10.1%

### Overview

1. Overview of Tesla Motors
2. Tesla's Strategy to become the world's largest and most highly regarded producer of electric vehicles
3. Overview of Tesla's sales of a Model S battery pack
4. The electric vehicle segment of the global automotive industry

### Elon Musk

- Born in South Africa, began interest in computer programming and, at age 12, sold code for a video game he invented for \$500
- Completed degrees in business and physics from University of Pennsylvania
- Founded two important startups: the world's first for an environmentally clean method of transportation and an idea that is now the gold standard of human credit ratings
- First entrepreneurial success came 2002 with his brother, Marshall, which is the company SpaceX for \$20 million in cash and \$24 million in stock options in 1999
- After in 1998, Musk co-founded X.com, an online payment company, and one year later acquired PayPal and merged it with the other who merged PayPal and sold it off for \$15.5 billion in 2002
- 2002-2003, Musk founded SpaceX to develop and manufacture space launch vehicles
- Musk is based in Palo Alto, California, his solar system design company, and Tesla Motors, Tesla's EV car company
- While in school, Musk was studying in California, his solar system design company, and Tesla Motors, Tesla's EV car company
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### 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.

### Value of Regulatory Credits

### Strategic Partnerships

### Resale Guarantee Program

### Strategic Partnerships

### Strategic Partnerships

Year	Revenue	Operating Profit	Net Income	EPS
2012	\$4.41	\$0.44	\$0.44	\$0.44
2011	\$2.87	\$0.44	\$0.44	\$0.44
2010	\$1.85	\$0.44	\$0.44	\$0.44
2009	\$1.85	\$0.44	\$0.44	\$0.44
2008	\$1.85	\$0.44	\$0.44	\$0.44
2007	\$1.85	\$0.44	\$0.44	\$0.44
2006	\$1.85	\$0.44	\$0.44	\$0.44
2005	\$1.85	\$0.44	\$0.44	\$0.44
2004	\$1.85	\$0.44	\$0.44	\$0.44
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### Strategic Partnerships

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### Financing Early Operations Continued; 2009

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- July: Abu Dhabi's Ashar 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 \$82.5 million from Daimler, Ford Capital Partners, and Ashar Investments to open additional sales and service centers

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### Financing Early Operations Continued; Going Public

- In June 2010, Tesla became the first electric car company to go public, raising \$1.05 billion with an IPO of 12.7 million shares at a price of \$77 per share
- In March 2011, Tesla raised \$200 million in a private placement

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### Management Changes

- In July 2010, Elon Musk became CEO and Chairman of the Board
- In October 2010, Tesla completed a follow-on offering of 9.7 million shares, raising an additional \$203.3 million

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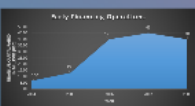


Tesla's Strategy

- Supply Chain Strategy: Tesla's supply chain is not as vertically integrated as other automakers, but it is more flexible and responsive to market changes
- Distribution Strategy: Tesla's distribution strategy is based on direct sales, bypassing traditional dealerships
- Production Strategy: Tesla's production strategy is based on vertical integration, with Tesla manufacturing its own components
- Research and Development Strategy: Tesla's R&D strategy is based on innovation and technological advancement
- Marketing Strategy: Tesla's marketing strategy is based on direct-to-consumer sales and a focus on customer experience

### A broad differentiation strategy.

- Tesla's mission goal is to manufacture premium-quality, high-performance electric vehicles, capable of driving customer loyalty and accelerating the world's transition from carbon-producing, gasoline-powered vehicles to energy-efficient, environmentally responsible electric vehicles.
- A broad differentiation strategy allows Tesla to produce vehicles that are sold at a higher price point, allowing Tesla to pay its suppliers in order to secure customer loyalty and ensure the best in the terms of substitution
- Tesla's broad differentiation strategy allows a company to:
  - Command a premium price for its product
  - Increase unit sales due to differentiation
  - Gain buyer 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 range of buyers
  - Improving customer service or adding extra services
  - Investing in product research and development
  - Selling for innovation and technological advances
  - Promoting customer loyalty and engagement
  - Increasing marketing and brand-building activities
  - Seeking high quality inputs
  - Emphasizing human capital or management activities that improve the firm's reputation and knowledge of company processes



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## Overview of Service Design in the Performing Arts



### Tesla's Strategy

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  - Power Electronics: two primary functions.
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    - 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	Profit	Assets	Liabilities	Equity
2003	1.0	0.0	0.5	0.5	0.0
2004	2.0	0.0	1.0	1.0	0.0
2005	3.0	0.0	1.5	1.5	0.0
2006	4.0	0.0	2.0	2.0	0.0
2007	5.0	0.0	2.5	2.5	0.0
2008	6.0	0.0	3.0	3.0	0.0
2009	7.0	0.0	3.5	3.5	0.0
2010	8.0	0.0	4.0	4.0	0.0
2011	9.0	0.0	4.5	4.5	0.0
2012	10.0	0.0	5.0	5.0	0.0
2013	11.0	0.0	5.5	5.5	0.0
2014	12.0	0.0	6.0	6.0	0.0
2015	13.0	0.0	6.5	6.5	0.0
2016	14.0	0.0	7.0	7.0	0.0
2017	15.0	0.0	7.5	7.5	0.0
2018	16.0	0.0	8.0	8.0	0.0
2019	17.0	0.0	8.5	8.5	0.0
2020	18.0	0.0	9.0	9.0	0.0
2021	19.0	0.0	9.5	9.5	0.0
2022	20.0	0.0	10.0	10.0	0.0
2023	21.0	0.0	10.5	10.5	0.0
2024	22.0	0.0	11.0	11.0	0.0
2025	23.0	0.0	11.5	11.5	0.0
2026	24.0	0.0	12.0	12.0	0.0
2027	25.0	0.0	12.5	12.5	0.0
2028	26.0	0.0	13.0	13.0	0.0
2029	27.0	0.0	13.5	13.5	0.0
2030	28.0	0.0	14.0	14.0	0.0

### Strategic Partnerships

Partnerships with Daimler, Panasonic, and Toyota.



### Strategic Partnerships



Partnerships with Panasonic and Toyota.



### Provide Guarantee Program



Partnerships with US Bank.



Partnerships with Wells Fargo.

### Strategic Partnerships



Partnerships with Daimler.



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# Overview

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

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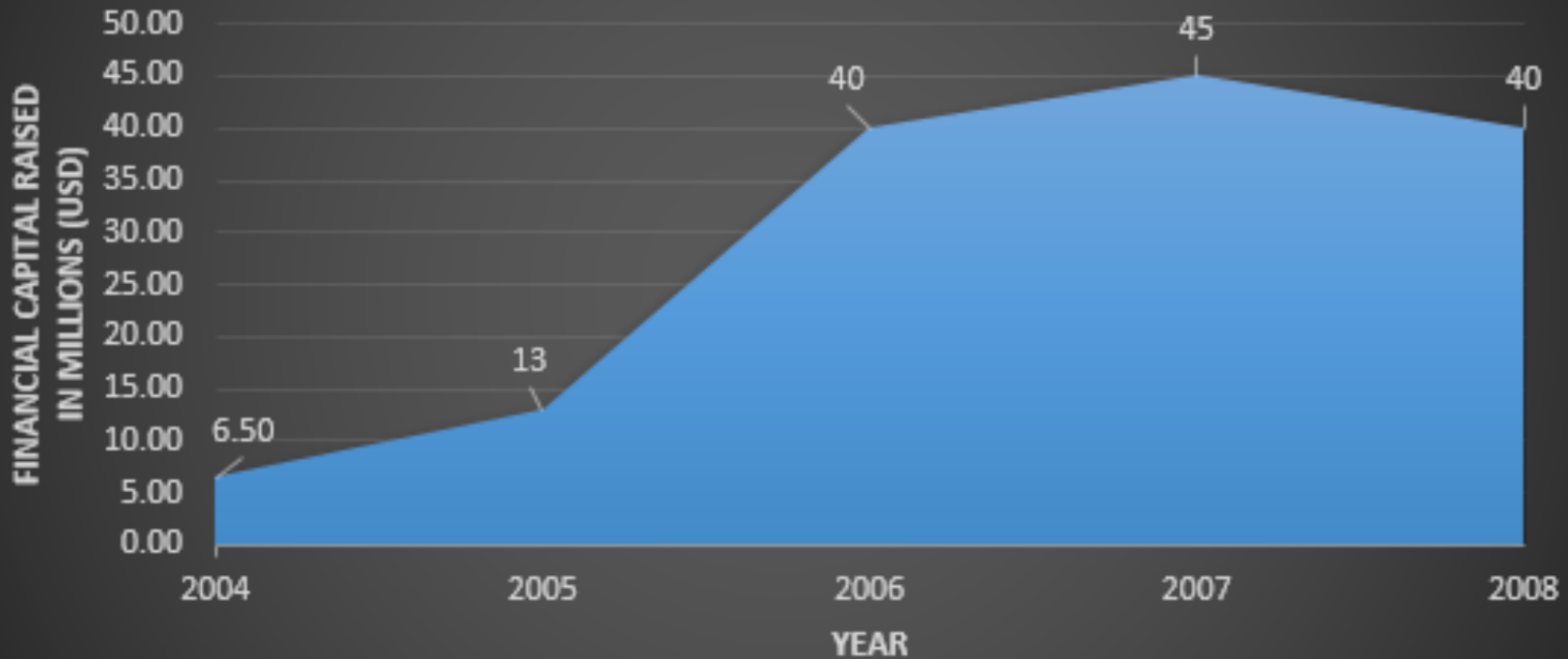
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# Financing Early Operations

- 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

## Early Financing Operations



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Financing Early

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## **Financing Early Operations Continued; Going Public**

- 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

- 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