

# 21st Century Technology

Record-breaking EV by every measure

Performance 0-60; 3.7 sec.\*

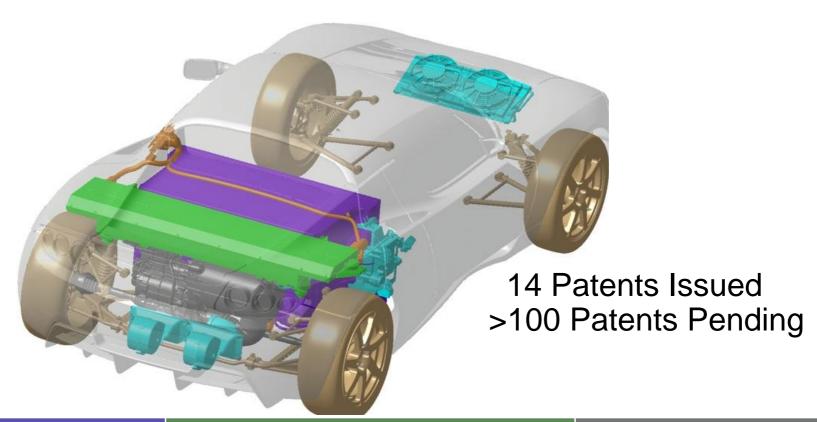
Range 245 miles

Development Cost \$125MM

Time Launched 3 models in 2 years



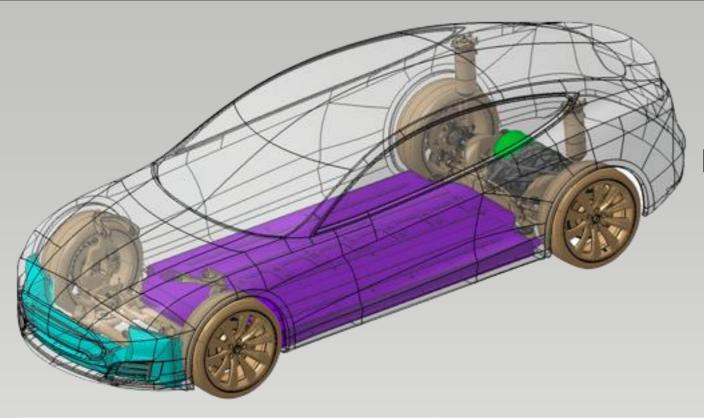
# Disruptive Technology



Battery Pack	Power Electronics	Motor
<ul> <li>Large battery pack and high energy density</li> </ul>	Bi-directional inverter	Instant peak torque
<ul> <li>Charge balancing and cooling</li> </ul>	On-board charging	3 phase design with 87% average efficiency
> >100k mile/7 year life expectancy	Universal connector	

#### **Control Software**

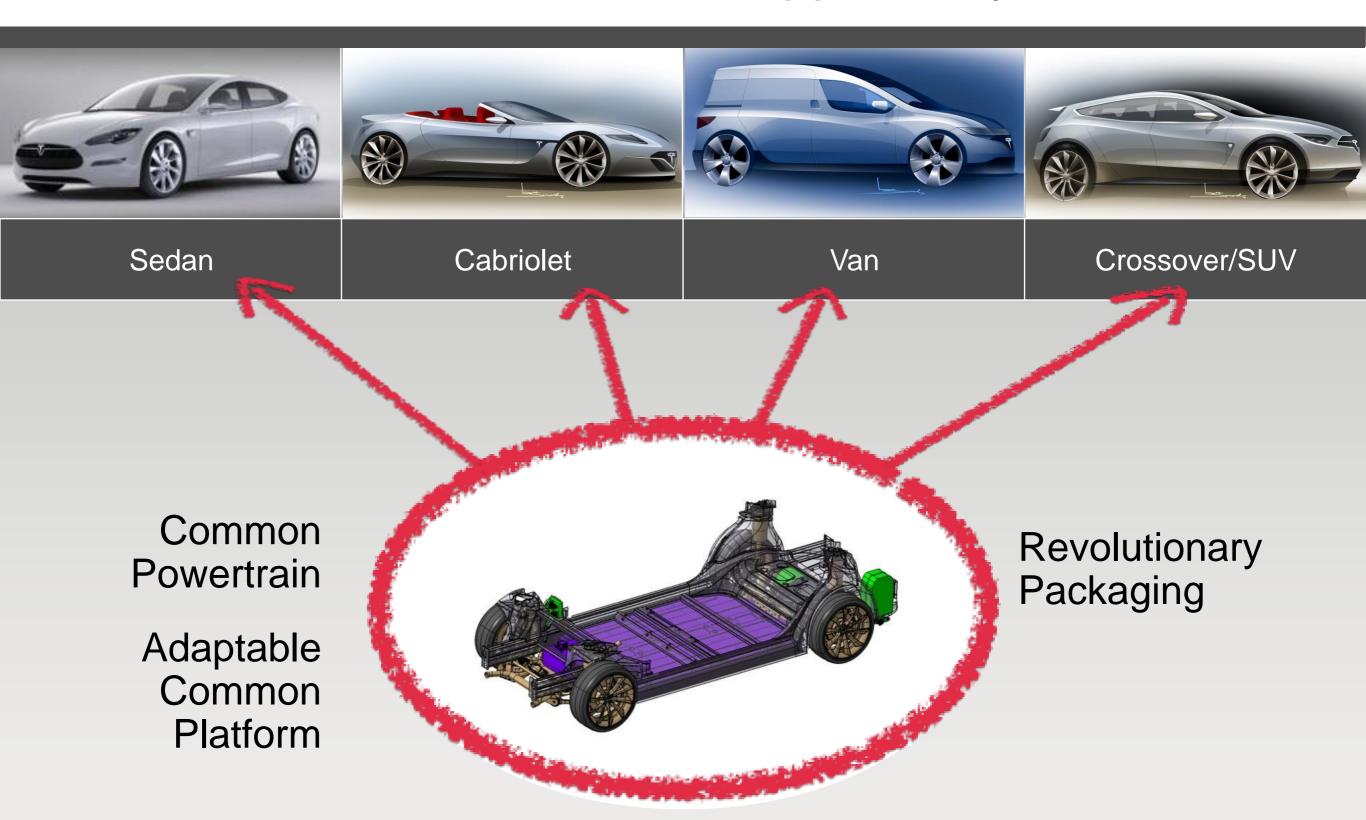
### Relentless Innovation



Performance & Cost Improvements from Roadster to Model S\*

Battery Pack*		Power Electronics*		Motor*	
Continuous Power	<b>1</b> 45%	Liquid Cooled		Liquid Cooled	
Energy	<b>^</b> 25%	Continuous Current	<b>1</b> 50%	Continuous Power @ 70mph	100%
Module Volumetric Energy Density	<b>1</b> 45%	Reduction in Power Loss at Continuous Current	<b>1</b> 20%	Top Speed	<b>1</b> 5%

## Platform for Broader Market Opportunity

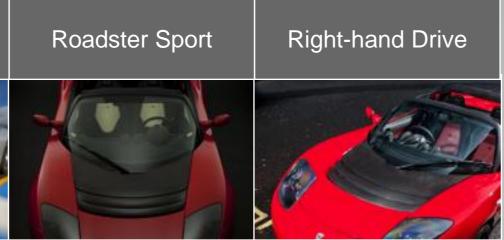


# Rapid Execution

/ehicles



> 0-60: 3.9s



0-60: 3.7s
Active Suspension
Premium Interior

**UK & Asian Markets** 

Model S



Up to 300 miles Mass Market\*

2008

2009

2010

2011

2012

SMART Development

**SMART Production** 

A-Class Development

**A-Class Production** 

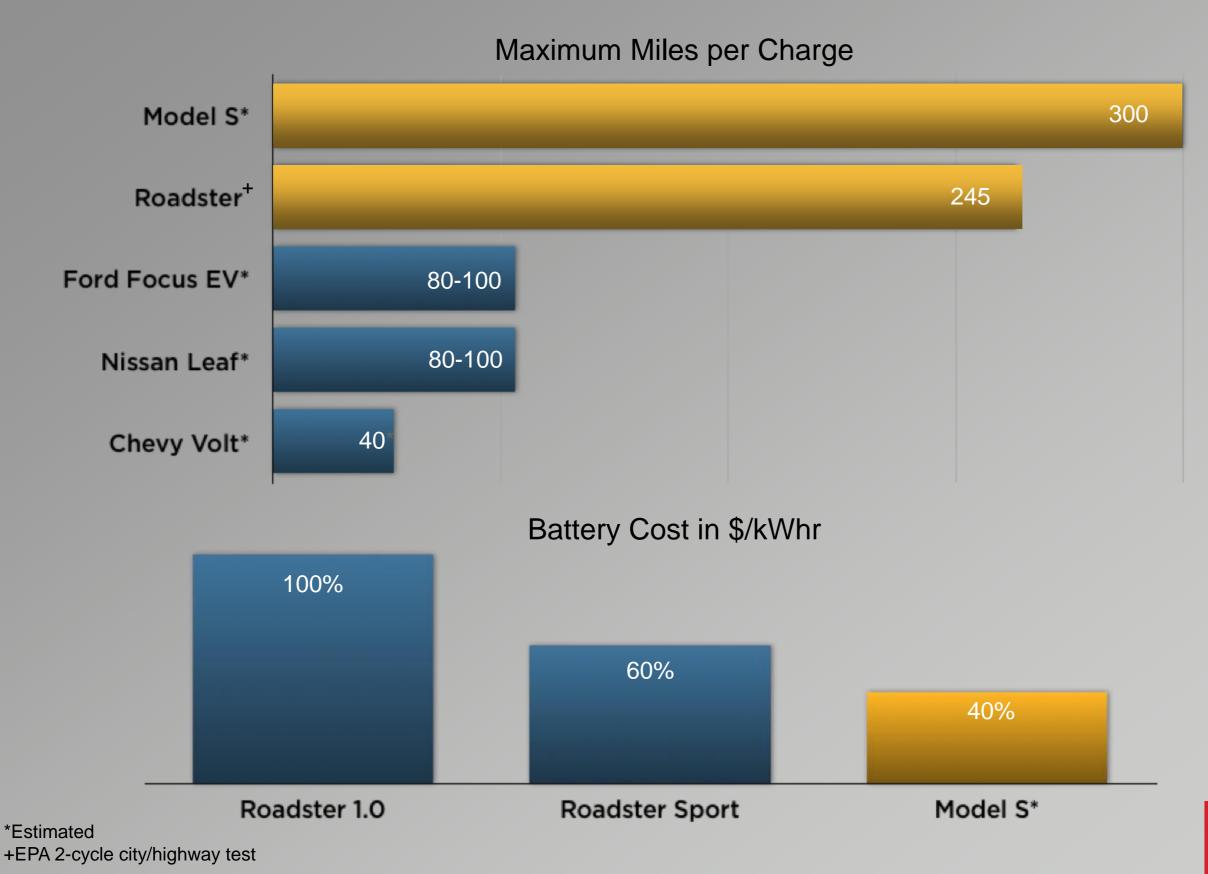
Freightliner Development

Powertrain 3.0\*



Powertrain

## Significant Technology Lead



### Proven Success



"Explodes off the line pulling like a small jet plane..."

Jason Cammissa, Automobile Magazine

#### 4 Million Customer Miles Driven

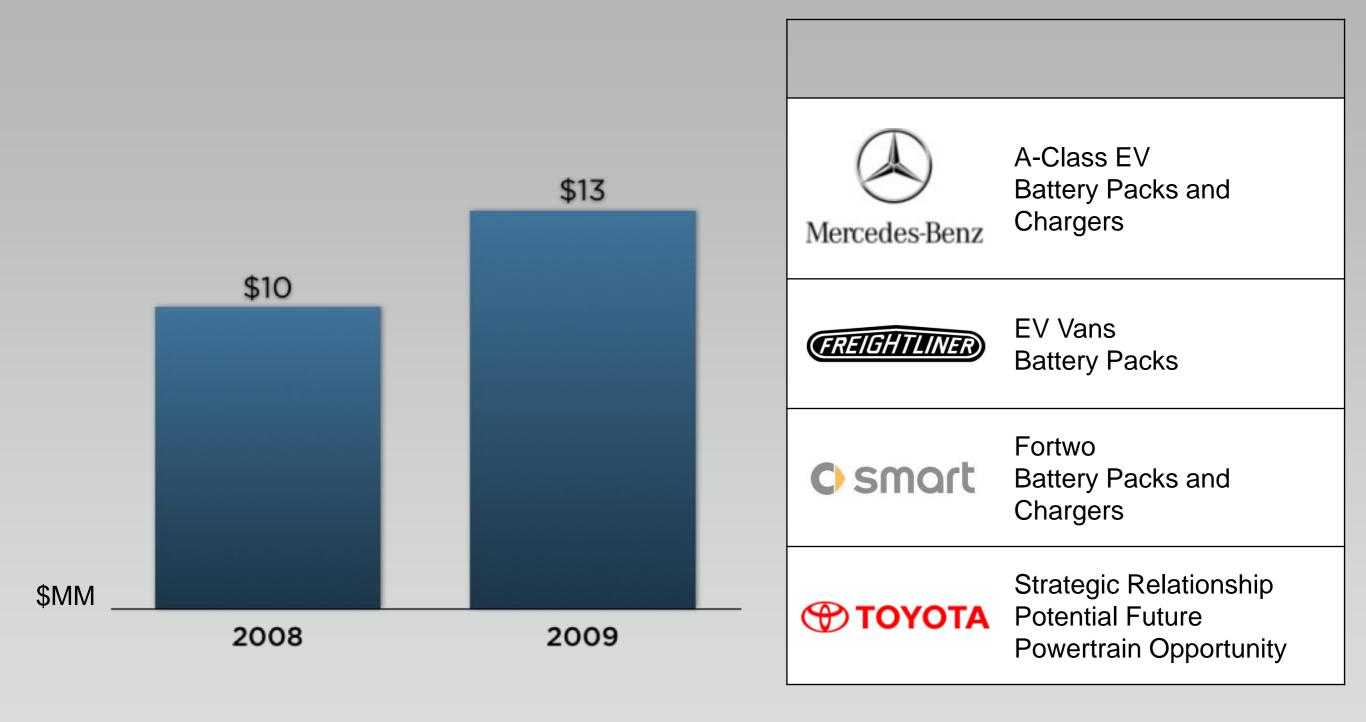






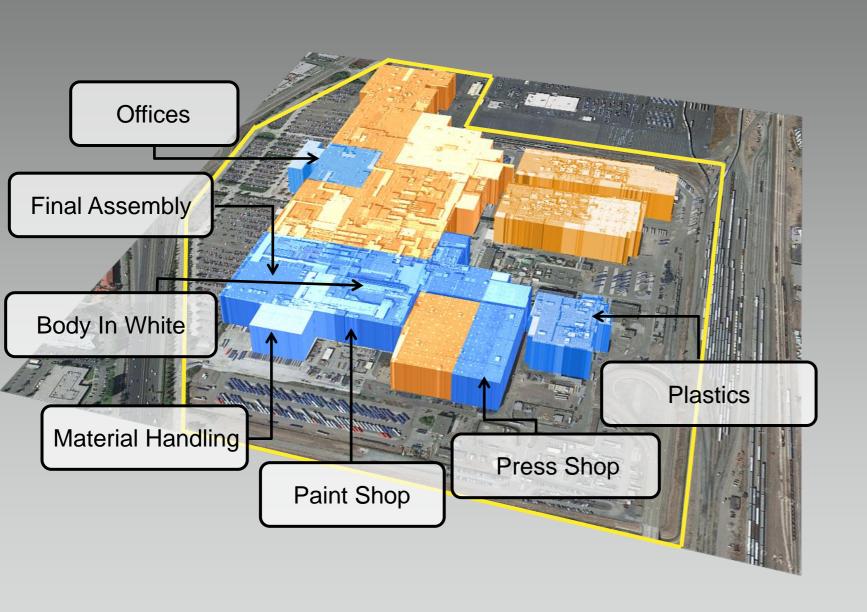
Investor

### Growth in Powertrain Business\*





### Freemont, CA\*



- > \$42MM, purchased from NUMMI
- > 207 Acres, ~5MM sq. ft.
- > Offers several advantages for Model s production
- > Ideal for Gen III EV

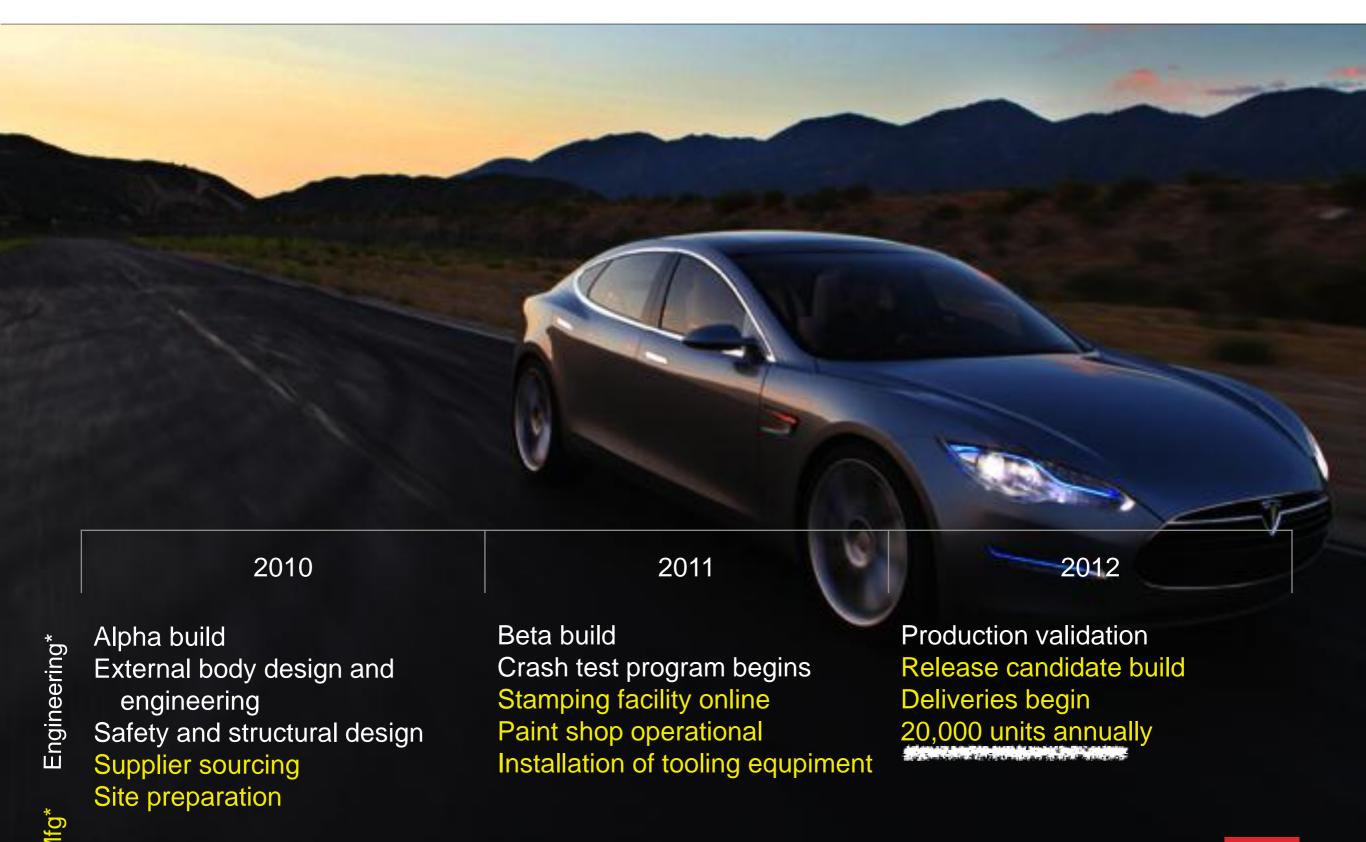


Model S Facilities

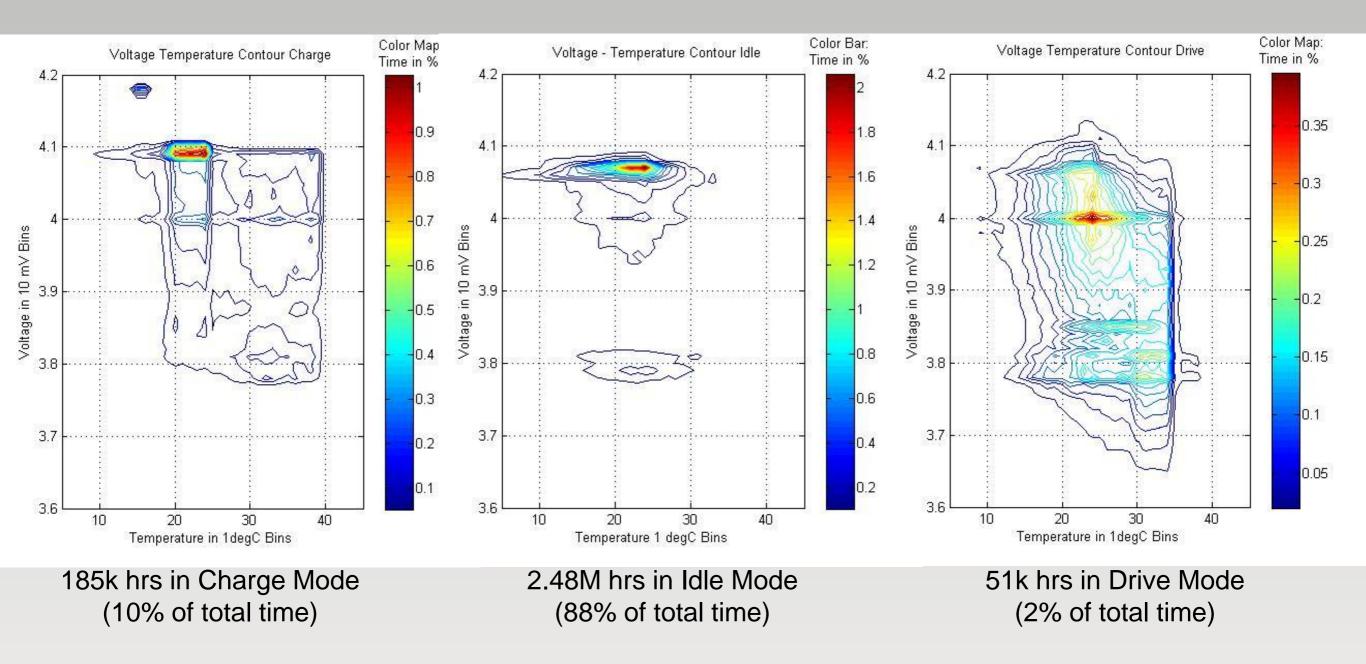


Future Programs

### Model S: Path to Success



#### Roadster Vehicle Data



Packs are stored at benign temperatures and typically less than 100% SOC

Cabin A/C is ON 9.8% of the time during drive

