



# The State of Battery R&D and Manufacturing in the U.S.

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Jason M. Forcier

Vice President Automotive Solutions

A123 Systems

# A123 Systems, Inc.

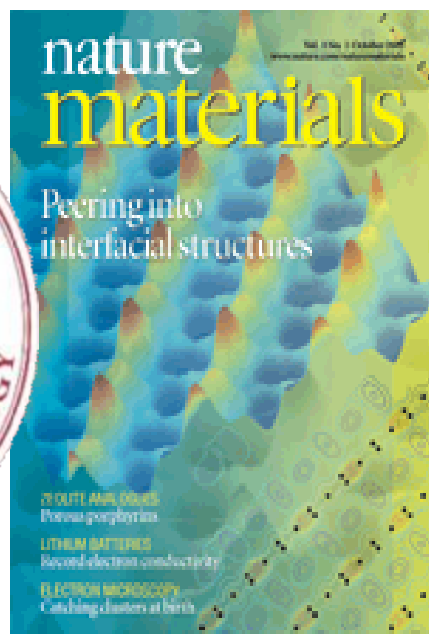


A123 Systems is a leading U.S. developer and manufacturer of advanced high power, safe and long-life lithium-ion energy storage solutions for next-generation applications in the transportation, electric grid and consumer markets

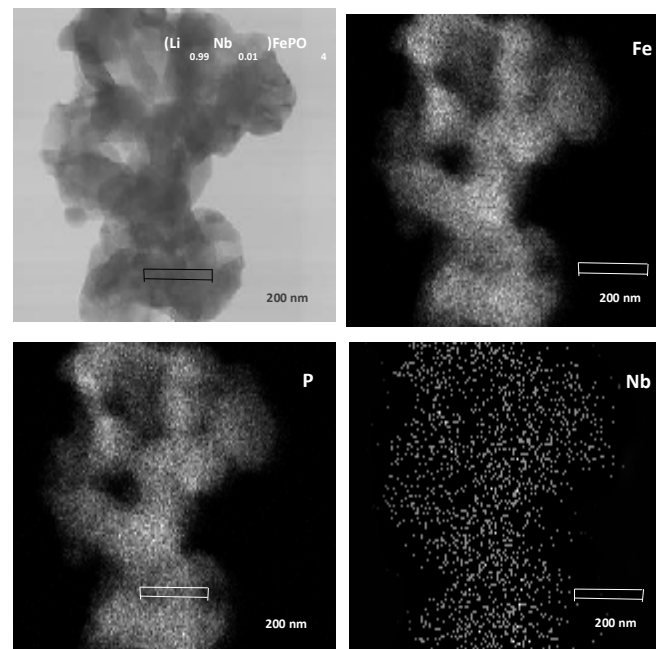
- Corporate headquarters: Watertown, Massachusetts
- 1600+ employees worldwide
- Mass producing millions of batteries per year
- >1,000,000 square feet of manufacturing facilities in China, Korea and United States
- Investing ~\$1B+ in capacity (2009 to 2012)
- NASDAQ (AONE) since 9/2009



# Nanotechnology Delivers Superior Performance



Better battery enabled by new nano-materials (Nature Materials)

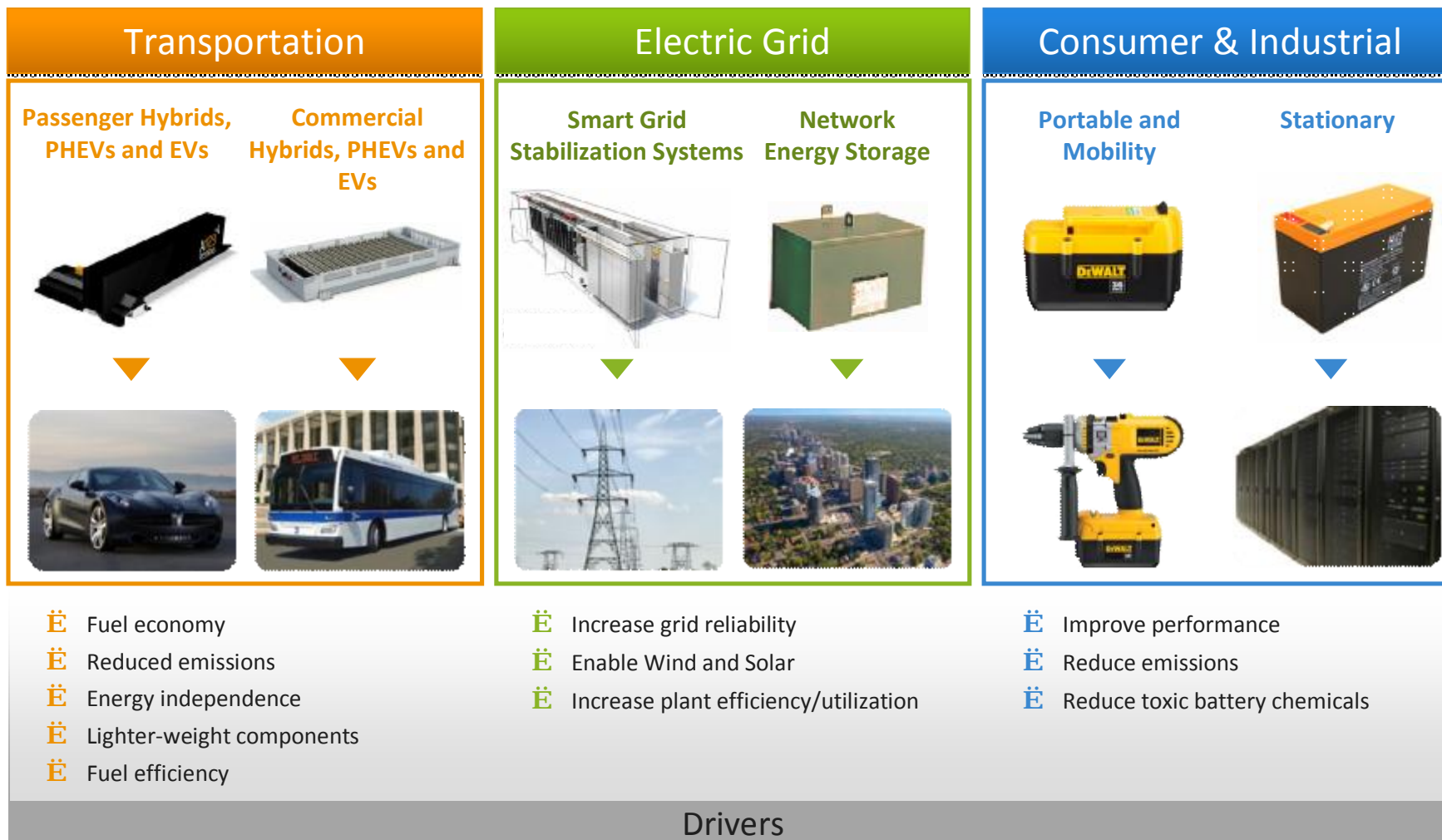


Nano particle size = extremely fast diffusion  
Dopant significantly increases rate capability (8 orders of magnitude higher conductivity)

- Utilizing the inherent chemical stability of iron phosphate for safety and cost
- Nanotechnology to increase active material surface area for power and energy
- Advanced material dopant enhances electrical conductivity

# Core Markets

## Enabling New Products through Advanced Energy Storage



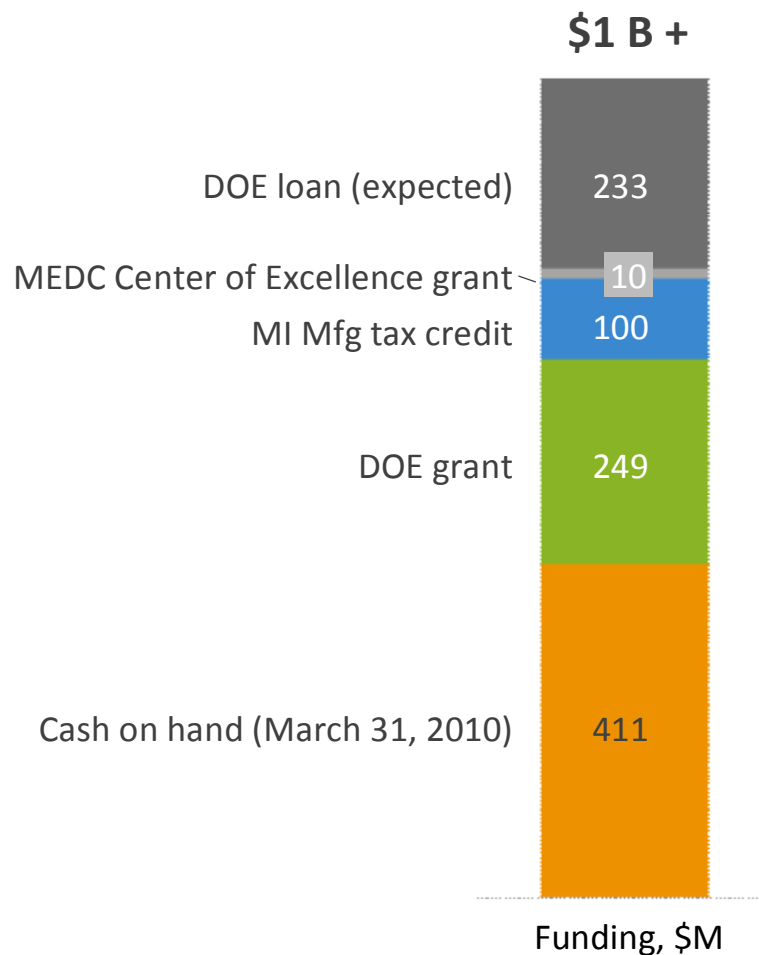
# Customer Pipeline

40 Programs in Development, 20 Programs Sourced or in Production



# Funding for Operations

- A123 has the financial strength to execute our manufacturing ramp
  - + \$411M cash on hand
  - + \$249M DOE grant
  - + \$100M MI tax credit
  - + \$10M MEDC grant
  - + \$233M DOE loan expected
- \$190M MI tax abatements also granted over 15 years





# Michigan Expansion



## Livonia – Cell & Pack Production, R&D

- + 291,000 sqft
- + Cell production started June, 2010
- + OEM Production 4Q 2010
- + \$230M total investment committed through 2011
- + 30,000 PHEVs/year capacity 4Q 2011

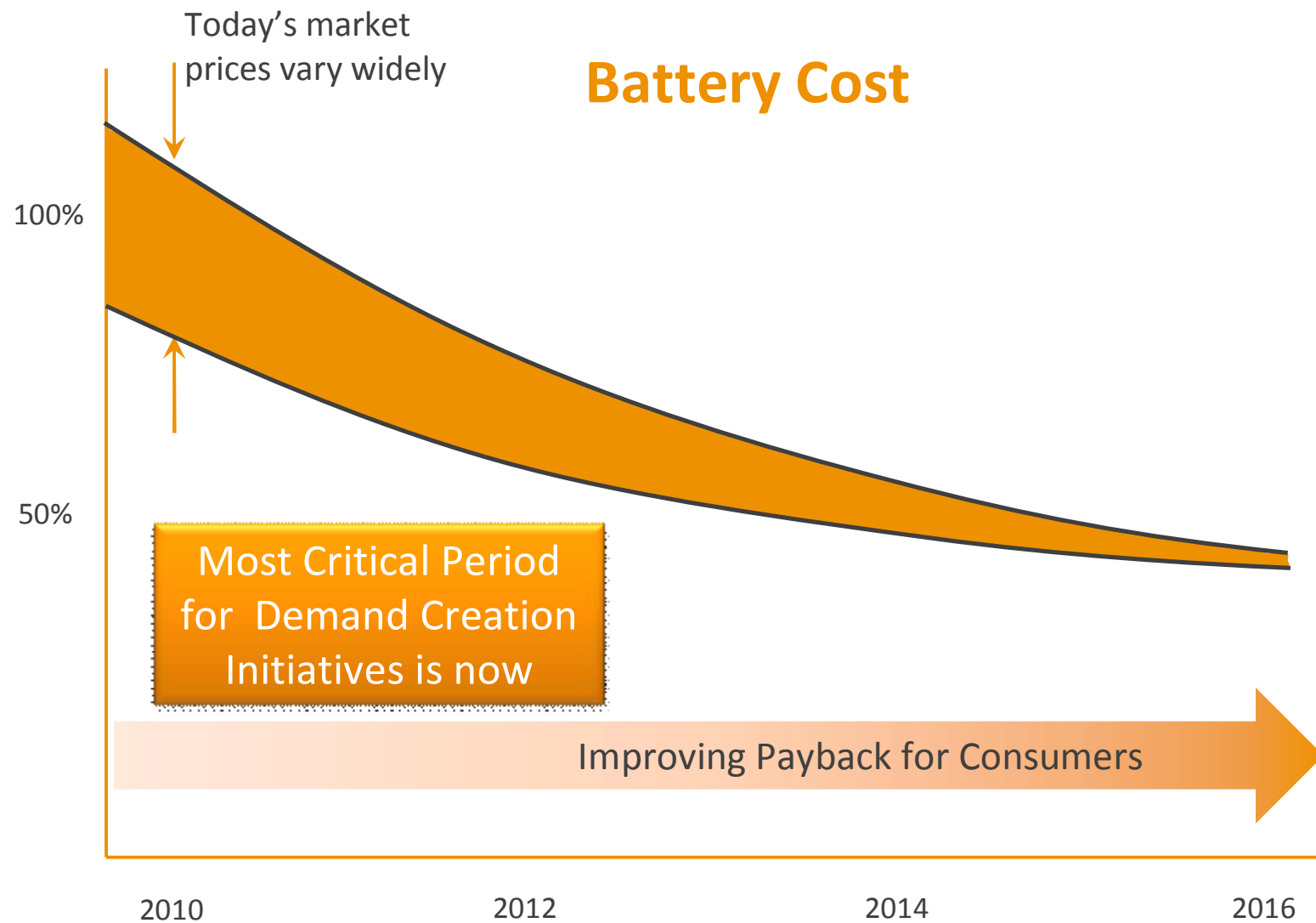


## Romulus –Coating Facility

- + 287,000 sqft (Expandable to 1.5 mil sqft)
- + Aggressive staffing in process
- + Renaissance Zone Award – May 2010
- + Electrode coating to begin Q3 2010
- + Investigating creation of a 'Mega Campus'
  - "Powder to Packs"



# Will Consumers Adopt the Electric Powertrain?





# Global Competition for Electrification

- China
  - + 60,000 Yuan (~\$8800) EV subsidy will be paid directly to vehicle manufacturers in 5 strategic cities
  - + Some of the municipalities have already announced additional incentives ranging from 20,000 – 40,000 Yuan (\$2950 - \$5500)
  - + Support is provided to Chinese-owned companies
- Germany
  - + Target of 1 Million EVs on the road by 2020
  - + In a market of 3-4 Million vehicles annually, the goal is very ambitious
  - + Strategic intent is to drive battery development and mfg in Germany



## Recommended US Policy Initiatives

- Demand Acceleration
  - + Stimulation of electrified vehicle demand can provide a bridge to sustainable business cases as battery costs dramatically decline
  - + Government vehicle fleets including the DoD non-combat vehicles provide substantial opportunity for short term demand creation
  - + Concentrated investment in charging infrastructures is an excellent way to support demand and assess real world consumer needs
  
- A123 supports the efforts of the Electrification Coalition
  - + Analysis on foreign oil dependence is available at [www.electrificationcoalition.org](http://www.electrificationcoalition.org)

