



Maxwell[®]
TECHNOLOGIES
Enabling Energy's Future™



Maxwell Technologies

Corporate Presentation

October 2014

Maxwell At-A-Glance

Overview

- Founded in 1965; IPO - 1983
- NASDAQ listed (MXWL)
- Corporate Headquarters: San Diego, California

Global Presence

- 450 employees worldwide
- Sales: U.S., Switzerland, Germany, China, Korea
- Manufacturing: United States, Switzerland, China

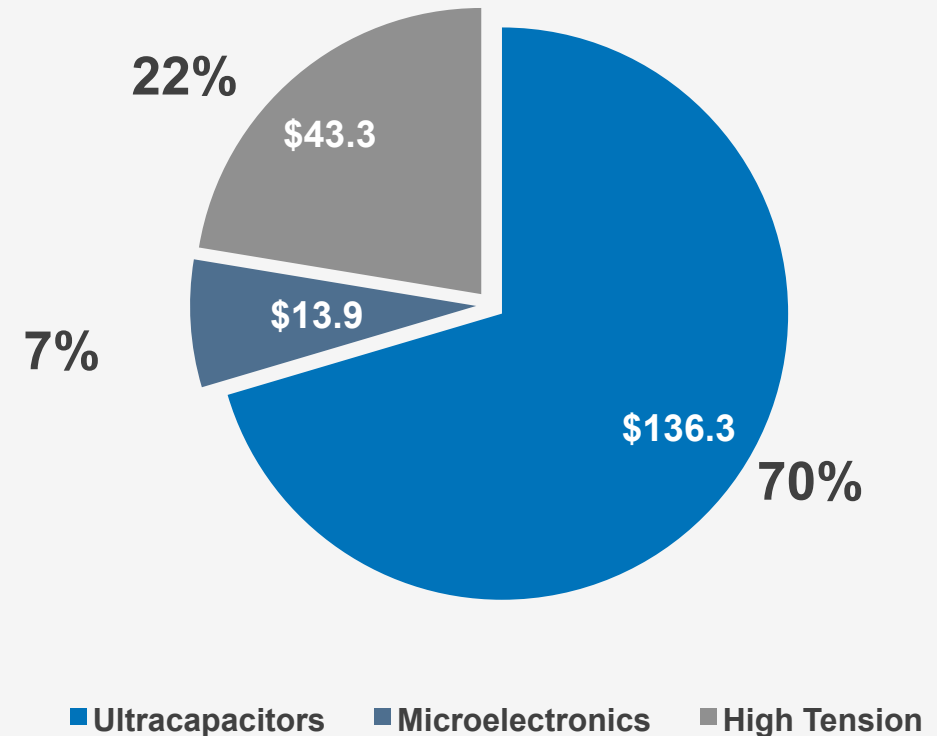
Target Markets

- Leading global supplier of Ultracapacitor energy storage and power delivery solutions for transportation and energy applications

Financial Highlights

- 2013 revenue: \$193.6 million
- Gross profit margins averaging ~40%

2013 Revenue (\$M)



Industry Leaders in Innovative, Affordable Energy & Power Solutions



Growing | Large Markets

Target markets over \$1 billion in 2020 (19.2% CAGR)



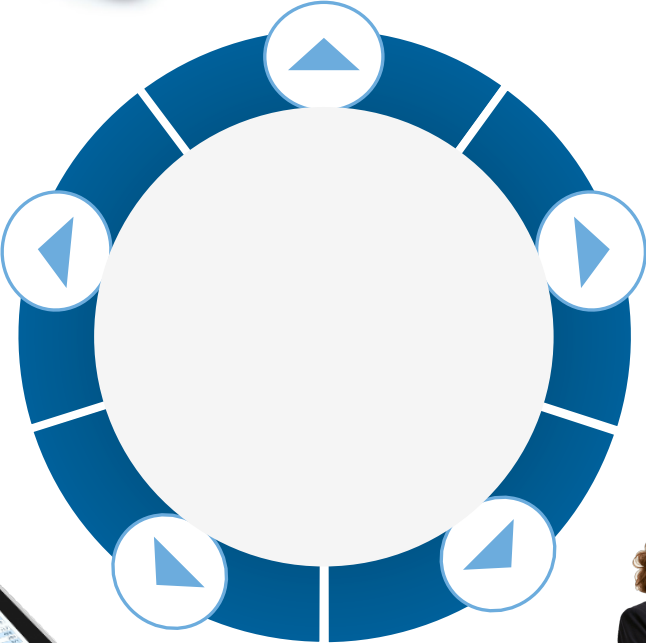
Experienced | Team

Deep technology and industry expertise, track record of delivering growth & value



Strong | Financials

Solid revenue growth, profitable, solid balance sheet and cash generation



Unique | Portfolio

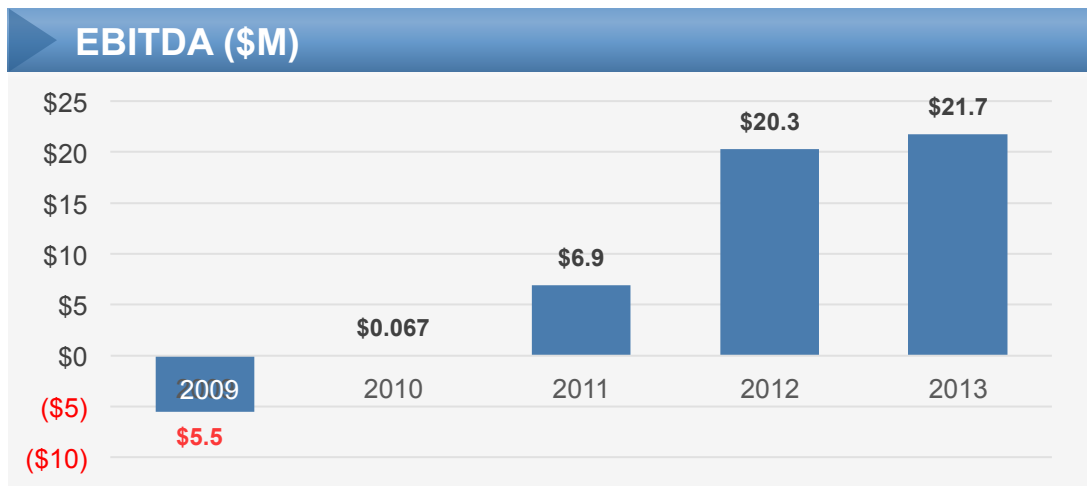
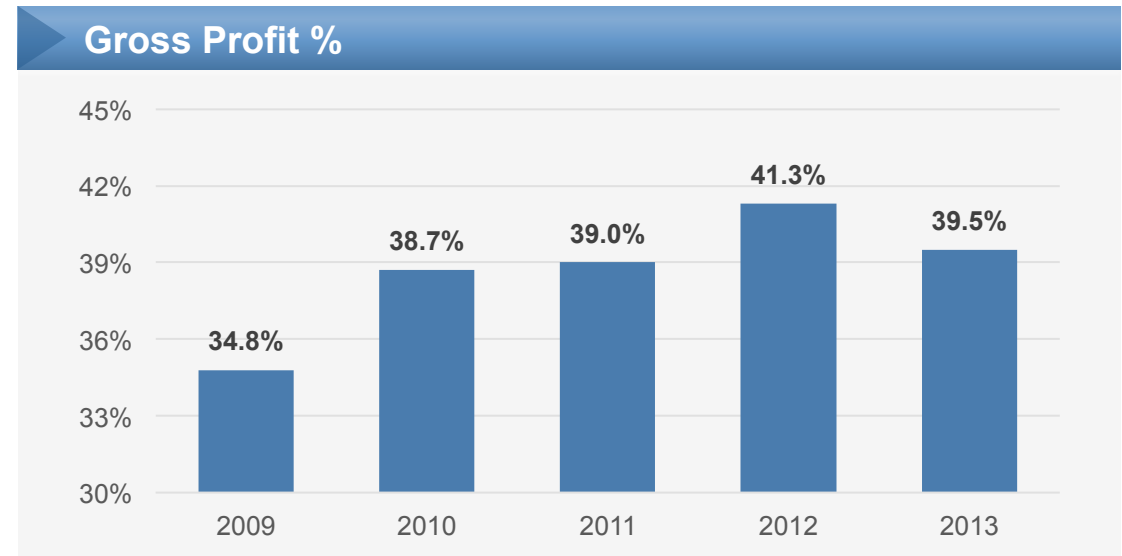
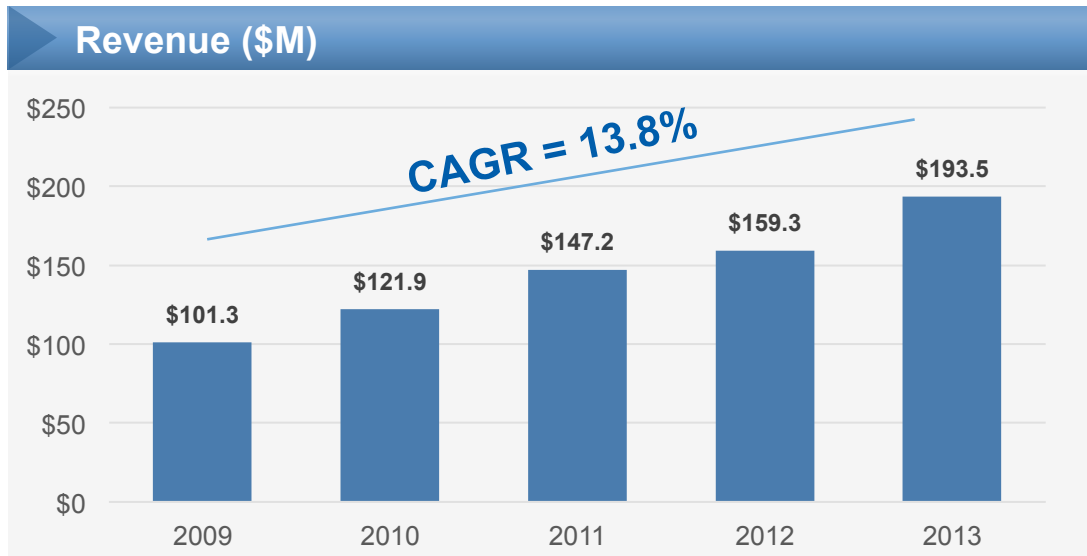
Extensive, best-in-class portfolio of Ultracapacitor, High Voltage and Microelectronics solutions



Global | Customer Base

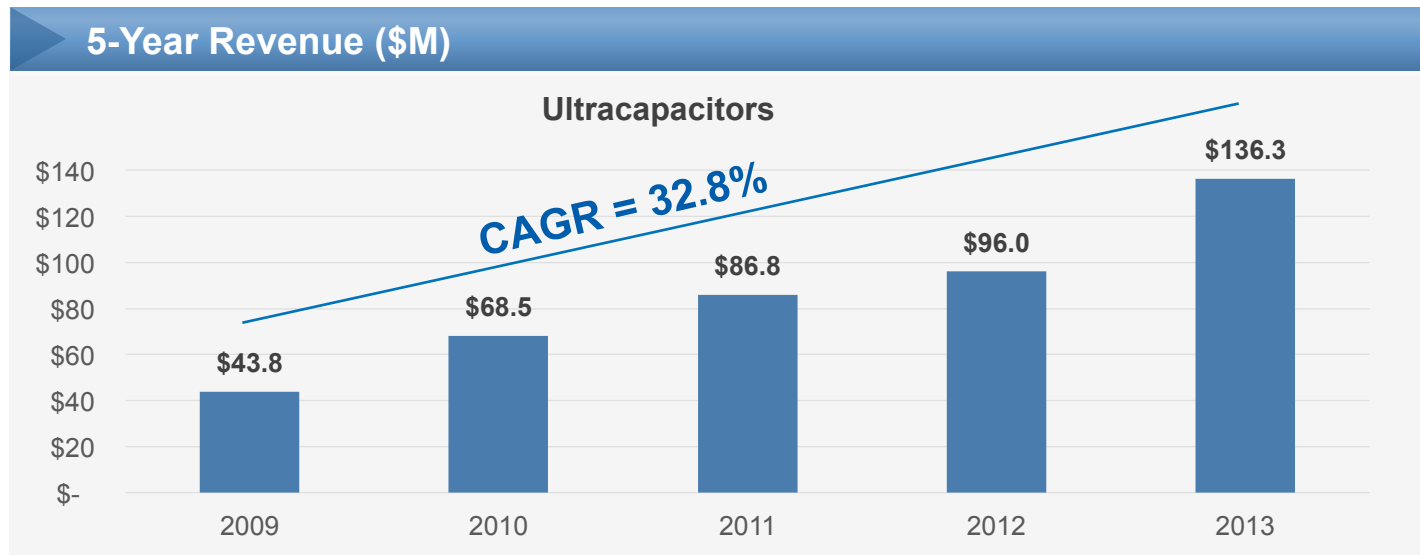
Winning with world's leading transportation and energy brands

Financials: Operating from a Position of Strength



- Strong revenue growth – 13.8% CAGR over the last 5 years
- Gross profit margin increased by 27% over the past 5 years
- Profitable growth generating cash – over \$30M cash balance

Accelerating Ultracapacitor Revenue – Maxwell's Growth Engine



- Revenues have grown at 32.8% CAGR over last 5 years
- Transportation and energy applications are main revenue growth drivers
- Investing and expanding product portfolio to drive accelerated revenue growth

CELLS



MODULES



TRANSPORTATION



ENERGY



Ultracapacitors: Rapidly Capture Electrical Energy and Deliver Power

| Requirement | Ultracapacitors | Batteries | Combination |
|----------------------------|--------------------|------------------|------------------|
| Rapid Energy Capture | <1 second | 2-5 seconds | < 1 second |
| Rapid Power Delivery | <1 second | 2-5 seconds | < 1 second |
| Extended Temperature Range | Excellent | Poor | Good |
| Product Life | 8-15 years | 2-6 years | 4-10 years |
| Run Time (Energy) | Seconds to Minutes | Minutes to hours | Seconds to hours |

The Power of Ultracapacitors combined with Energy of Batteries:



Enables **rapid response** times



Extend operational **temperature range**

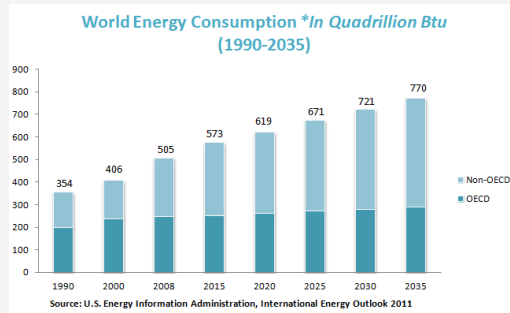


Lengthens battery life by up to **2x**

The Global Energy Dilemma

Unquenchable thirst for energy and power with mandate to reduce emissions

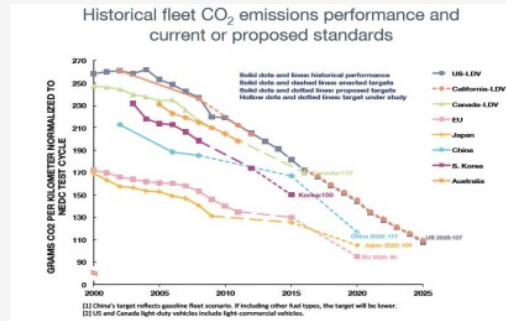
World Energy Demand



2x

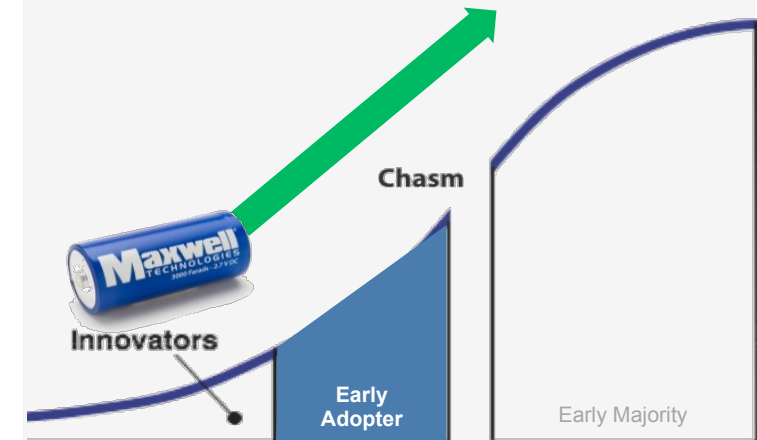
Energy consumption doubling by 2050

CO₂ Emissions Reductions



Halve Global Emissions by 2050

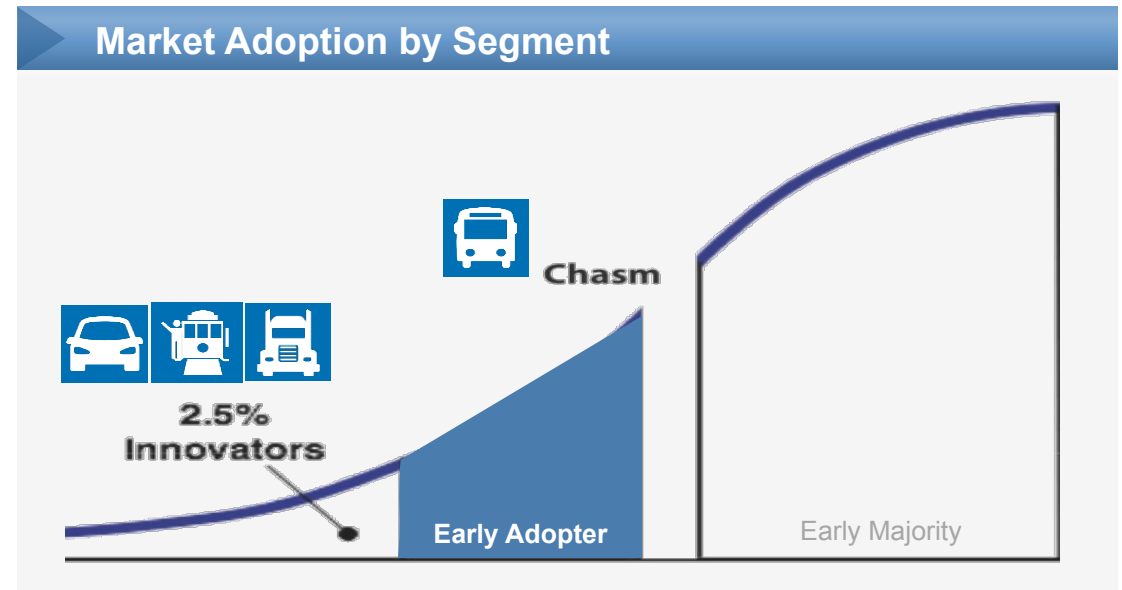
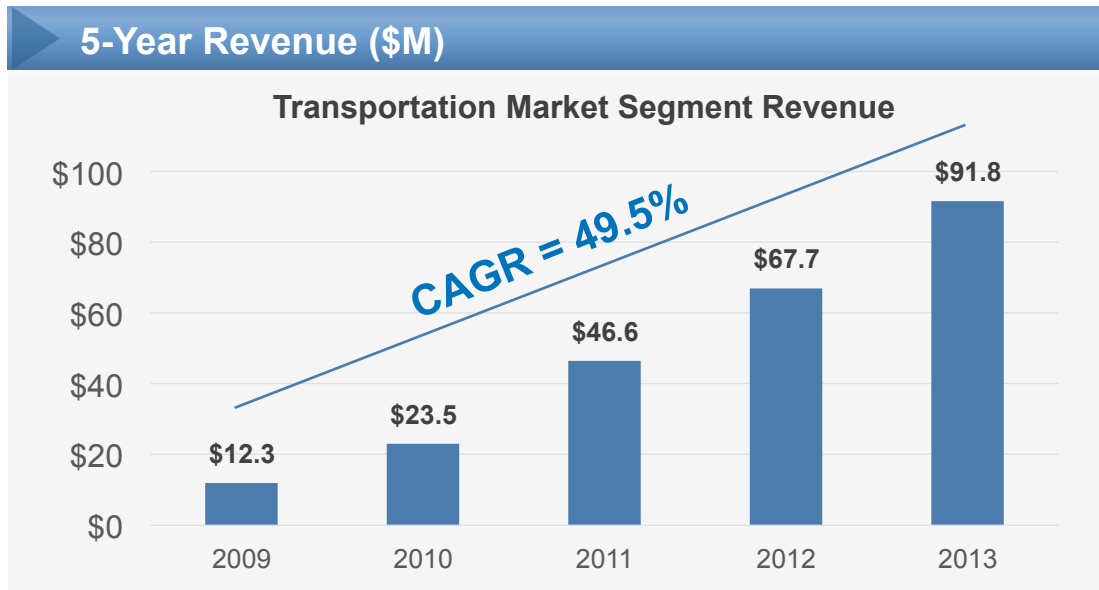
Market Adoption



- World energy demand to double and emissions to halve by 2050
- Requires innovative energy and power delivery solutions
- Transportation & grid markets reaching early adoption with key inflection points ahead

Target markets growing at **19.3% CAGR** over 7 years – reaching **>\$1B** by 2020

Transportation: Bus, Auto, Rail, Trucking



- **Early market leadership driving significant revenue growth – 49.5% CAGR over 5 years**
- **Stringent long term regulations mandate increased fuel economy & reduced emissions**
- **Platform electrification accelerating Ultracapacitor adoption**

Transportation markets to grow at 21.6% CAGR reaching >\$700M by 2020

Sources: Market Size (units) and Application(s) adoption Navigant, Deloitte & Touche, Frost & Sullivan, Maxwell Independent research and publicly available data.

UCAP sales & UCAP content – Maxwell internal projection based on historical trends and customer feedback.

Broad Ultracapacitor Application in Transportation Markets

Ultracapacitors meet the increasing power demands of Transportation



BUS

- Hybrid
- Plug in Hybrid
- Electric Bus
- Engine Starting



AUTOMOTIVE

- Start / Stop
- Regenerative Braking
- Power Assist Hybrid
- High Power e-Turbo
- Active Suspension



RAIL

- Regeneration
- Propulsion
- Voltage Stabilization
- Engine Starting



TRUCKING

- Engine Starting
- Hybridization

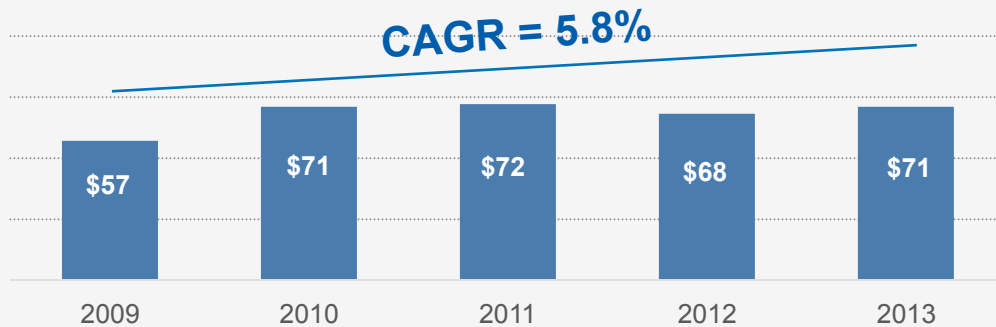
- Operating in **over 15 thousand hybrid buses** and **1M start / stop vehicles** worldwide
- Leveraging **leadership in auto and bus** to capitalize on new emerging **opportunities**
- **Rail wins** for electric **propulsion**, deliver significant **energy & infrastructure savings**
- Major **US truck OEM's** evaluating Engine Start Module for **enhanced engine starting**

Over 7M ultracapacitor cells shipped into transportation applications

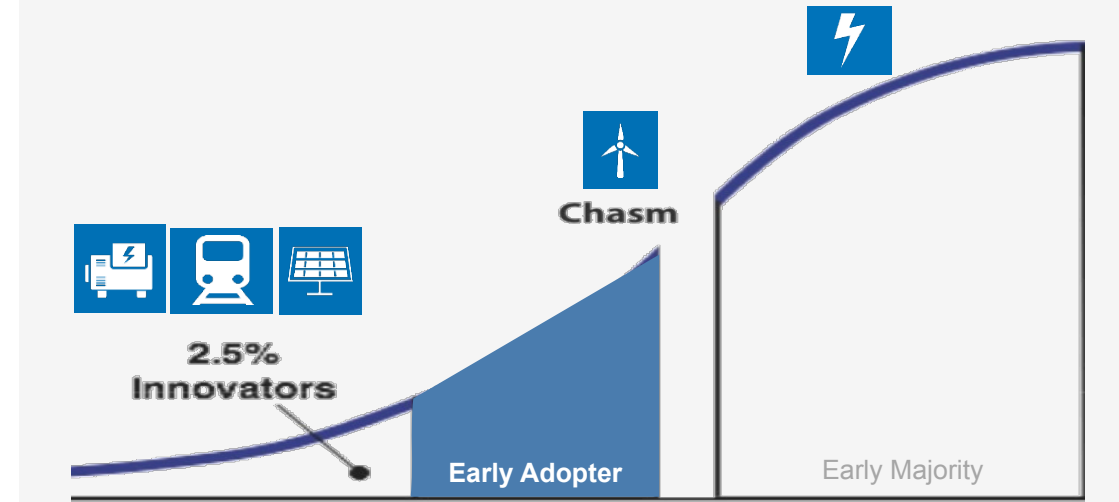
Grid: Wind Energy, Backup Power, Grid Storage

5-Year Revenue (\$M)

Grid Market Segment Revenue



Market Adoption by Segment



- **Established partnerships** driving **solid revenue growth** – 5.8% CAGR over 5 years
- **Government policies** driving more **renewable** power generation
- Aging infrastructure requires **fast response storage** to stabilize output and improve reliability

Grid market segments grow at 14.1% CAGR reaching >\$400M by 2020

Broad Ultracapacitor Use in Grid Markets



WIND PITCH

- Boost Power & Fail Safe Backup



RENEWABLES

- Solar & Wind Firming
- Ramp Rate Control
- Frequency Regulation
- Voltage Stability
- Peak Shaving & Load Shifting



TRADITIONAL

- Gen-set Starting
- Power Stabilization
- Spinning Reserves
- Bridge Power & Backup Power



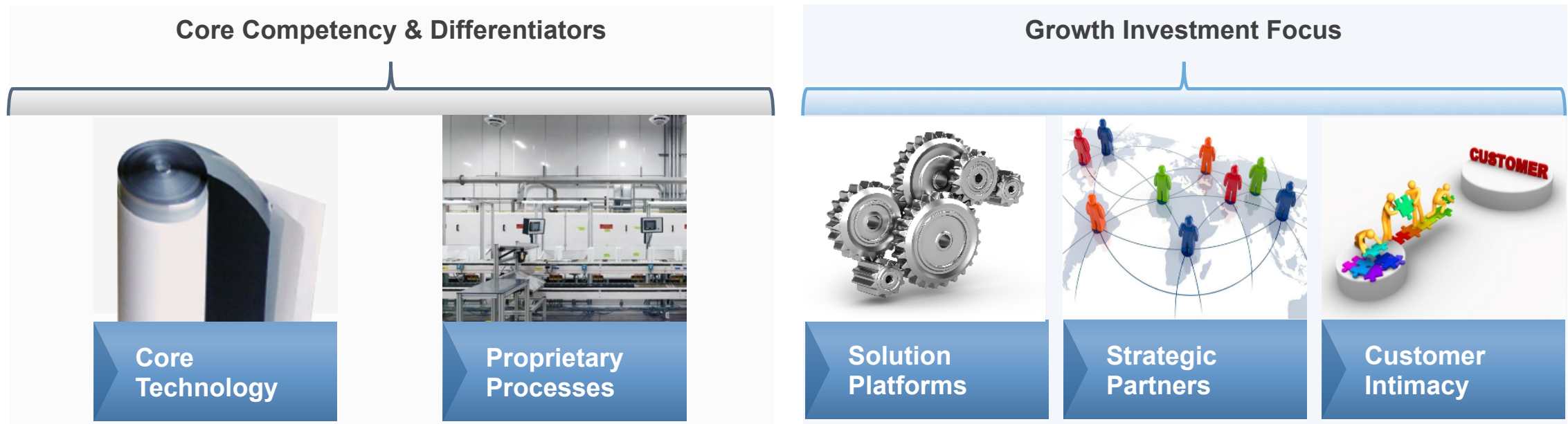
RAIL WAYSIDE

- Energy Recuperation
- Power Stabilization
- Frequency Regulation

- Operating in over **30,000 wind turbine pitch control systems** worldwide
- **Renewable firming demonstrations** in US, Europe and Asia
- Deployed in **backup** and **gen-set** starting where rapid response power is business critical
- Growing number of **commercial** grid power **wins** in **rail wayside** market

Over 8M ultracapacitor cells shipped into grid applications globally

Key Differentiation Capabilities



- **Pioneered** core ultracapacitor **technology** and **high-volume manufacturing**
- **Proprietary** electrode **fabrication** yields significant **cost and performance advantages**
- **Expanding** strategic **partnerships** to develop enabling platforms and **accelerate adoption**
- **Deepening existing customer** relationships and **acquiring customers** in new segments

Investing in Portfolio of Differentiated Products

2.85V / 3400F Cell with DuraBlue™



New 2.85Volt 3400 Farad Cell with Durablue™

Sets new standard in energy and power with most ruggedized cell available

New Engine Start Module for Medium Duty Trucks

ESM Ultra 31 / 900

ULTRA 31/900 Engine Start Module

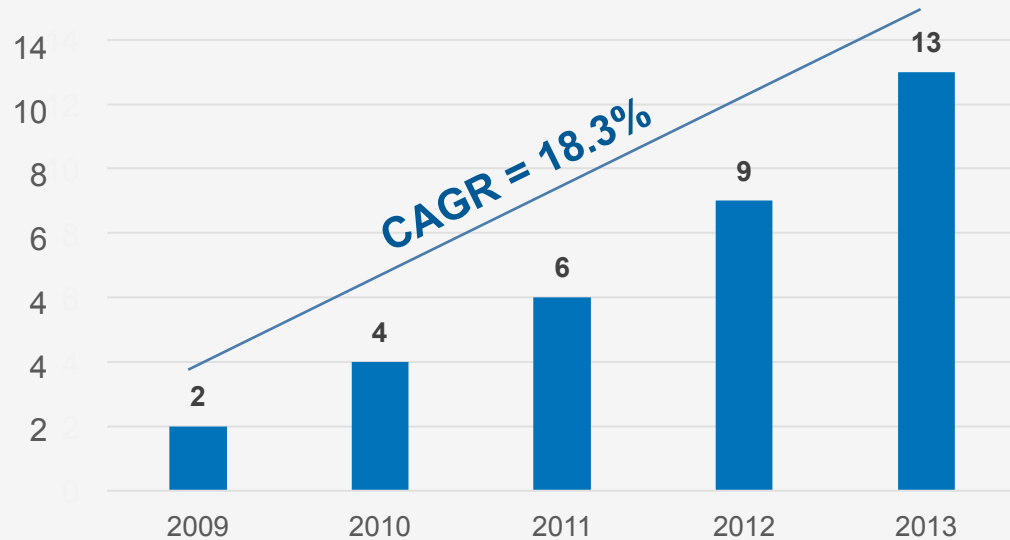


Delivering Best-in-Class New Products

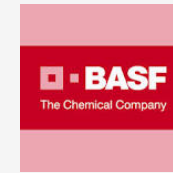
- **DuraBlue™** : the world's most rugged ultracapacitor technology
- Expanded award-winning **Engine Start Module** line for medium duty trucks
- Focusing investments to deliver increasing **new products & speed time to market**
- Expanding **business and technical partners** to drive innovation and **competitive separation**

Proven Global Supply Chain

Cumulative K2 & D Cell Unit Sales (m)



Supply Chain Partners



- Proven **high volume supply capacity** through long-term **supplier relationships**
- **Reliable, high quality manufacturing** - ISO 9001/14001, OSHAS 18001 & TS 16949 certified
- 1st ultracapacitor factory **automotive qualification** in 2009

Unique dual source electrode manufacturing with scalable production capacity

Leadership Team – Strong Technology Experience



Dr. Franz Fink*
President & CEO

*Joined Maxwell May 2014

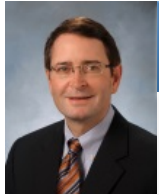
- Gennum, Freescale Semiconductor, Motorola
- High Tech Growth CEO



Chris Humphrey*
Vice President of Marketing & Engineering

*Joined Maxwell September 2013

- QLogic, Honeywell, Lantronix, Applied Microcircuits
- Executive Marketing, Engineering & Innovation



Kevin Royal
Senior Vice President, CFO

*Joined Maxwell April 2009

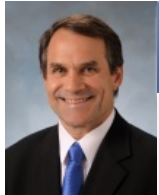
- Blue Coat Systems, Novellus Systems, Ernst & Young
- Experienced publically traded company CFO



Dave Wojciechowski*
Vice President of Americas Sales

*Joined Maxwell February 2014

- ABB/PowerOne, SMA Solar Technology, Emcore
- Global Sales Executive, Sales Engineering



Mike Everett
Vice President, CTO

Joined Maxwell August 2002

- 3D Systems; Advanced Power & Energy Development
- Recognized authority on Advanced Energy Technology



Sacha Jenny
Vice President & General Manager High Voltage

Joined Maxwell January 2003

- Cresco Ti Systems, Silicon Graphics Inc
- Global Power Grid Expertise & General Management



Sabrina Randolph
Vice President & Worldwide Controller

Joined Maxwell October 2010

- Vaco Consulting, PETCO Animal Supplies, PricewaterhouseCoopers
- Experienced finance and accounting professional



Earl Wiggins
Vice President of Operations

Joined Maxwell August 2006

- Maxtor Corporation, Quantum Corporation
- Global High Volume Manufacturing & Quality

(*new members of leadership team)

Strong Foundation Today

Positioned for Profitable Growth

Solid Financials



Large Markets Multiple Growth Drivers



Fast Growing Diversified Ultracapacitor Company



Balanced and Global



Balanced Small Cap Growth Story



Maxwell[®]
TECHNOLOGIES
Enabling Energy's Future™



Thank You
