# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

# CURRENT REPORT Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) August 17, 2009

# **Brush Engineered Materials Inc.**

(Exact name of registrant as specified in its charter)

Ohio	001-15885	34-1919973			
(State or other jurisdiction	(Commission	(IRS Employer			
of incorporation)	File Number)	Identification No.)			
6070 Parkland Blvd., Mayfield Hts., Ohio		44124			
(Address of principal executive offices)	(Zip Code)				
Registrant's telepl	none number, including area code 2	16-486-4200			
	Not Applicable				
(Former name o	r former address, if changed since la	ast report.)			
Check the appropriate box below if the Form 8-K filing is the following provisions (see General Instruction A.2. be		the filing obligation of the registrant under any of			
☐ Written communications pursuant to Rule 425 under t	the Securities Act (17 CFR 230.425)				
☐ Soliciting material pursuant to Rule 14a-12 under the	Exchange Act (17 CFR 240.14a-12)	)			
☐ Pre-commencement communications pursuant to Rule	e 14d-2(b) under the Exchange Act (	(17 CFR 240.14d-2(b))			
☐ Pre-commencement communications pursuant to Rule	e 13e-4(c) under the Exchange Act (	17 CFR 240.13e-4(c))			

#### **Item 7.01 Regulation FD Disclosure**

On August 17, 2009, Brush Engineered Materials Inc. updated its website with a slide presentation that will be presented by Richard J. Hipple, Chairman, President and Chief Executive Officer to investors on August 17, 2009. A copy of the presentation is attached hereto as Exhibit 99.1.

#### **Item 9.01 Financial Statements and Exhibits**

Exhibits:

Exhibit Number	Description of Exhibit
99.1	August 2009 Presentation
	2

#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Brush Engineered Materials Inc.

August 17, 2009

By: /s/ Michael C. Hasychak

Michael C. Hasychak

Vice President, Treasurer and Secretary



- ... a leader in creating innovative engineered material solutions and services to make our customers competitive on a global basis
- ... while enhancing earnings growth, shareholder value, and stability ... by broadening technology, market, and geographic reach

# Investor Presentation August 2009

### **Forward-Looking Statements**

These slides contain (and the accompanying oral discussion will contain) "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements involve known and unknown risks, uncertainties and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by these statements, including health issues, litigation and regulation relating to our business, our ability to achieve profitability, significant cyclical fluctuations in our customers' businesses, competitive substitutes for our products, risks associated with our international operations, including foreign currency rate fluctuations, energy costs and the availability and prices of raw materials and other factors disclosed in periodic reports filed with the Securities and Exchange Commission. Consequently these forward-looking statements should be regarded as the Company's current plans, estimates and beliefs.

The Company does not undertake and specifically declines any obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect any future events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.



## **Brush Engineered Materials Inc. Profile**

- A leading manufacturer of high performance specialty engineered materials and services ... an enabling materials technology company
- Four segments ... with operations, service centers and major office locations in North America, Europe and Asia
- Serving long-term growth oriented global markets from consumer electronics to heavy mining equipment



### **Overview**

Company: Brush Engineered Materials Inc.

founded 1931, publicly traded since 1956

NYSE Ticker: BW

Shares Outstanding: Approximately 20.2 million at 7/03/09

Market Cap: Approximately \$314 million at 7/03/09

Component of: S&P Super Composite 1500, Russell 2000

S&P Small Cap 600

Annual Revenue: \$910 million @ 12/31/08

YTD Q2 2009 Revenue: \$310 million @ 7/03/09

YTD Q2 Diluted EPS: \$(0.44) which includes a net inventory

valuation charge, severance costs due to manpower reductions and a pension benefit resulting from the reduction in workforce

Debt to Total Capitalization: 10% at 7/03/09

(net of cash)



### BEM....the transformation

- From Metals & Mining through Specialty Metals to Advanced Materials
- From an "old industrial" to a "new age technology" company
- From single digit to double digit growth



### BEM....the transformation

- Broaden the base...focused on > GDP opportunities
  - new technologies
  - new markets
  - new products
  - expanded geography
- Target fastest growing segments of fast growing markets
- First Priority....organic growth
- Second Priority.... "manageable" acquisitions
- All while building and maintaining a strong balance sheet

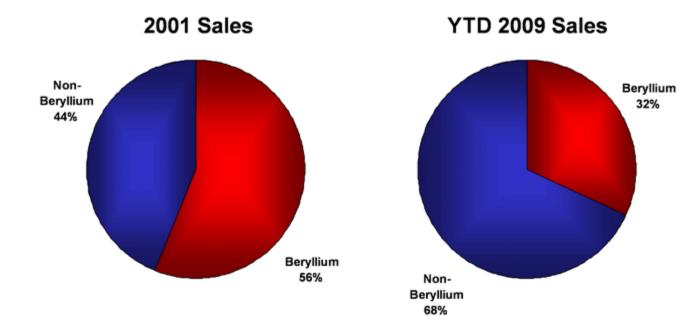


# BEM....the transformation (cont.)

- · Investments...prioritizing a targeted business model
  - low capital intensity...both working capital and reinvestment capital
  - high IP....technology driven business
  - non-commodity products...high margins
  - good growth potential in >> GDP opportunities
- Acquisition goals
  - Accretive within 18 months
  - Approximately \$50 million invested per year from cash flow
  - Use debt and equity when appropriate while maintaining quality of balance sheet and financial flexibility

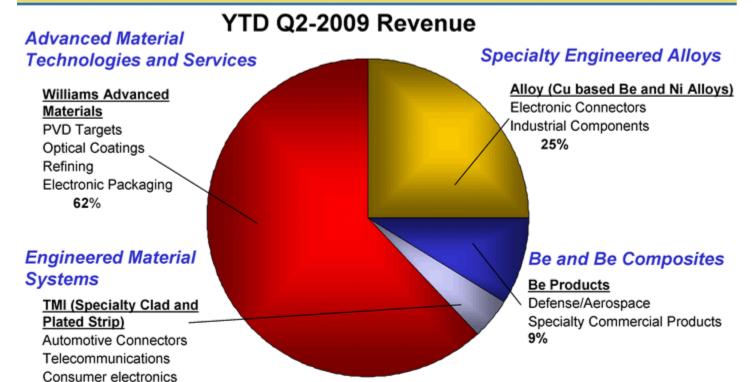


# **BEM....the transformation (cont.)**





## **Brush Engineered Materials – Major Business Units**





4%

## 2008 Recap

- Sales of \$910 million
- Diluted earnings per share of \$0.89\*
- Acquisition of assets of Techni-Met, Inc. for \$86.5 million
  - Techni-Met produces precision precious metal coated flexible polymeric films used in a variety of high-end applications, including diabetes diagnostic test strips
- Contract with government to build new beryllium pebbles plant
- · Perpendicular media product qualifications progressing

<sup>\*</sup> Includes certain non-operating items. The operating run rate is \$1.44. See Reconciliation of Non-GAAP Financial Measures



# **Non-GAAP Financial Measures**

	Fourth Quarter Ended				Twelve Months Ended			
	Dec.	31, 2008	Dec.	31, 2007	Dec	31, 2008	Dec.	31, 2007
GAAP diluted EPS	\$	(.16)	\$	.60	\$	.89	\$	2.59
Benefit on sale of ruthenium inventory		-		-		-		(.70)
Lower of cost of market ruthenium inventory charge		.30		.02		.50		.15
Loss on sale of a subsidiary		-		-		-		.02
Accounts receivable correction related to 2007		-		(.04)		.09		(.09)
Discrete tax items and other		-		-		(.06)		-
Non-recurring purchase accounting costs		-		-		.02		-
Litigation settlement in 2007		-		(.27)		-		(.27)
Non-GAAP operating run rate	\$	.14	\$	.31	\$	1.44	\$	1.70



### Q-2 2009 Recap

- Revenue of \$174 million or an increase of 29% from Q1 2009
  - Revenue improvement is primarily due to increase in demand from the consumer electronics-oriented markets
- Sales for Q2 and YTD 2009 were down 29% and 35%, respectively, as compared to the same periods last year
- Net loss was \$(0.04) per share; an improvement of \$0.36 per share diluted compared to Q1 2009 and much better than expected
- Net loss for Q2 2009 of \$(0.8) million was down \$7.9 million versus Q2 2008. For the first six months of 2009 the net loss of \$8.9 million was down \$20.7 million versus the same period last year



### Q3 2009 Outlook

- Order entry has continued to improve, especially in the consumer electronics-oriented markets
- Not much clarity; still uncertain about Q3 and beyond, but have seen signs of the economy bottoming out and certain key markets improving
- Expect Q-3 sales to improve from Q-2 levels; with sales expected to be in the range of \$180-\$190 million
- Higher sales volumes and additional impact from the cost reduction activities should result in a further improvement in performance in the third quarter, generating a slight profit in Q3 2009



## **Strength in Challenging Times**

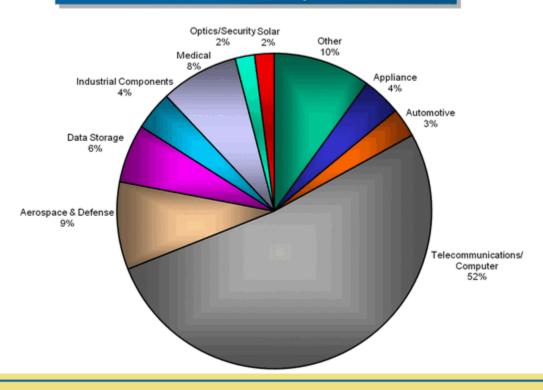
### **Balance Sheet**

- Revolver
  - \$240 mm committed facility, matures November 2012
  - More than \$100 million in availability
- Debt
  - During Q2 2009, debt was reduced by \$14.3 million and cash increased by \$8.1 million, significantly improving the balance sheet



# Global Leader in High Performance Engineered Materials

### Q2 2009 Revenue by Market





## **Brush Engineered Materials ... core competency**

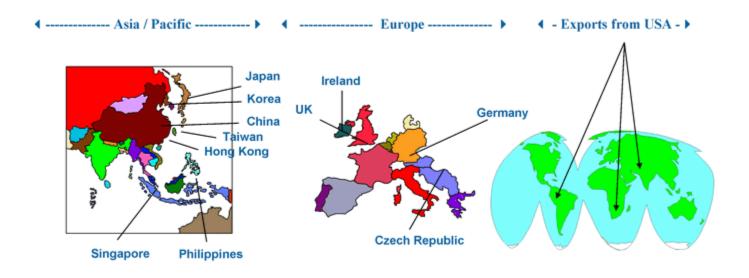
# A common approach to markets and a common culture across our operating companies

- Collaborating with customers worldwide to solve material application challenges ... with a focus on enabling technology and services
- "Own" a Niche orientation ... non-commodity
- · Focus on global growth and service
- Constantly looking ahead to realign product and service portfolios toward favorable trends ... targeted to achieve strong profitable growth
- Employees who are passionately focused on exceeding customer expectations



### **Global Sales and Distribution Network**

- Operations in the U.S. and eleven foreign countries
- YTD Q2 2009 International sales were \$103 million (33%)
- · Act globally ... service locally!





### **Advancing the World's Technologies**

- Strong customer collaboration ... providing enabling technology solutions and service
- Materials that meet design challenges requiring

- Strength - Reliability

- Electrical conductivity - Miniaturization

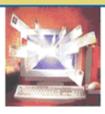
- Weight reduction - Corrosion resistance

- Reflectivity - Thermal conductivity

Targeting profitable growth applications in growing markets



## **Typical End Uses**



Notebook computers and network servers

Cellular phones, i-Pods<sup>™</sup> and other wireless communication devices



Defense



Electronic components in cars and trucks



Commercial Aerospace

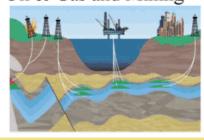


Medical Devices





Industrial products for Oil & Gas and Mining





# **Applications - Cell Phones**





## **Applications – Photovoltaic (Solar)**

#### Technology: Crystalline Silicon (Si)

Interconnect Materials
Front and backplane systems
for \
high efficiency designs.

# Technology: Copper Indium Gallium Selenide (CIGS)

Thin Film (PVD) Materials as well as Powders for Printing CIGS applications Copper Indium Gallium Selenide thin film and screen printing applications for flexible and rigid solar cells.

# Technology: Flexible Solar Cells / Building Integrated Photovoltaic:

Thin Film Services:

Technology: Amorphous

Silicon (a-Si, tandem and

Front and back contact layers

layers

multi-junction) Thin Film (PVD)

Silicon based photovoltaic cells

TCO Transparent Conductive Oxide

Solar cells built in flexible substrates to accommodate applications such as roofing tiles or defense.

# Technology: Cadmium Telluride (CdTe)

Thin Film (PVD) Materials

Cadmium based solar cell architecture. N and P type Cadmium Semiconductor materials

TCO Transparent Conductive Oxide layers Front and Back-contact layers

# Technology: Concentrator Photovoltaic (CPV)

Thin Film (PVD) Materials

Solar technology based on concentrating Solar rays into a semiconductor device via large lens. Anti-Reflection Coating Materials Precious metal contact materials

#### Micro Electronic Packaging Products:

Bonding Ribbon - Au & Ag Lead-free Solders Metallized Ceramic Substrates



# **Applications – Hard Disk Drives**

Thin film materials for the read/write head. (WAM)

•Sputtering Targets/Evaporation Materials (Precious Metals, Alloys, Non-Precious Metals, Alloys, Magnetic Materials, Heusler Alloys and Oxides) Thin film materials for the Disk Substrate (WAM)

•Sputtering targets (Precious Metals, Alloys, Non-Precious Metals, Alloys, Magnetic Materials, Oxides)



Applications growing into many commercial and mobile electronic products.



Example – Hard Disk Drive Media PMR Material Stack

Recording Layer	CoCrPt + Oxide			
Orient Interlayer	Ru			
Soft Underlayer	Iron & Cobalt Based Alloys			
AFC Layer	Ru			
Soft Underlayer	Iron & Cobalt Based Alloys			
Substrate (Glass or Aluminum)				



# **Applications - Oil & Gas**

#### Wellhead Control Equipment (Alloy):

- Brush Alloy 25
- ToughMet® 3



#### Drill Bits (Alloy):

- · Brush Alloy 25
- ToughMet® 3

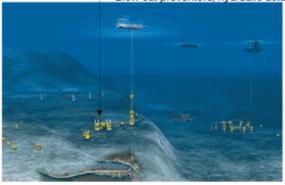
#### Structural Rig Components (Alloy):

ToughMet® 3

#### Under Water Wellhead Equipment (Alloy):

- · Brush Alloy 25
- ToughMet® 3

Blow out preventers, hydraulic actuators



# Directional Drilling Equipment (Alloy):

- · Brush Alloy 25
- ToughMet® 3

MWD, LWD, MPT systems

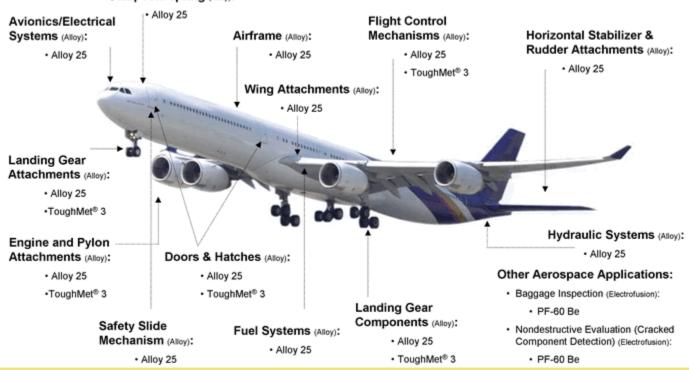
#### Other Oil & Gas Applications:

- · Elemental Analysis (Electrofusion):
  - PF-60 Be; IF-1 Be
- · Down Hole X-Ray Inspection (Electrofusion):
  - PS-200 Be



# **Applications – Aerospace**

#### Flight Attendant Jumpseat spring (Alloy):





# **Applications – Medical**

#### Seizure Control (WAM/TFT):

 Thin Film Deposition Implantable Electrode – Parkinson's disease (R&D)

#### X-Ray Mammography (Electrofusion):

• IS-50M Be

#### Subcutaneous Glucose Analysis (WAMTFT/TechniM)

. Thin Film Coatings - Electrode Monitoring device

#### **External Glucose Analysis**

(WAM/TFT/Techni-Met):

· Subcutaneous sensors for glucose measurement

#### Insulin Pump (Alloy):

- · EMI Shielding
- · Electrical Terminals in Connectors
- · Mechanical Chips
- · Connector Systems for equipotential grounding

#### Dental X-Ray (Electrofusion):

PS-200 Be

#### Cardiac Rhythm Management (TMI):

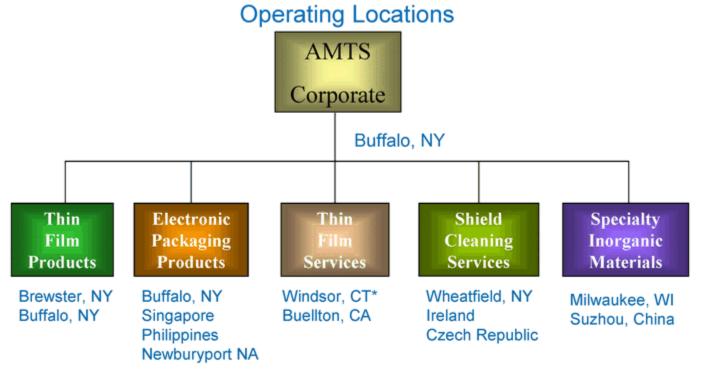
- · Electronic Interconnects/Components
  - · Niobium/Titanium Electron Beam Weld

#### Other Medical Applications:

- CT Scan (Electrofusion): PF-60 Be; PS-200 Be
- · Bone X-Ray (Electrofusion): PF-60 Be
- Ultrasonic Scalpels (Be Products): S-200F Be
- Advanced Drug Delivery Components (TMI): Clad Stainless
- Hypodermic Components (TMI): Multigauge Stainless
- Diagnostic Electronic Components (TMI): Gold Plating
- Anesthesia Monitoring Components (TMI): Gold Plating
- · Biopsy Instruments (TMI): Electron Weld Beam Stainless
- Cauterizing Electronic Scalpel (TMI): Clad Stainless



### Advanced Material Technologies and Services Business Structure Today and Evolving



Additional Service Operations: Taiwan, Suzhou, Ireland, Singapore, California

\*acquired 2-4-08



# Williams Advanced Materials also has broad capabilities in precious and non-precious materials

- · Comprehensive product line
  - High purity / proprietary PVD targets
  - Micro-electronic packaging materials
  - Specialty inorganic chemicals

#### Strong end use markets

- Data storage
- Wireless/handsets
- Semiconductor
- Optical media
- Photonics
- Optics
- Medical
- Solar

#### Industry leading service and support

- Global sales and applications support
- "Best-in-class" response times
- Growing business in chamber services
- Low-cost operations in Singapore, Taiwan and the Philippines
- New offices in Korea, Japan, Shanghai, Czech Republic
- Acquisition of Techni-Met



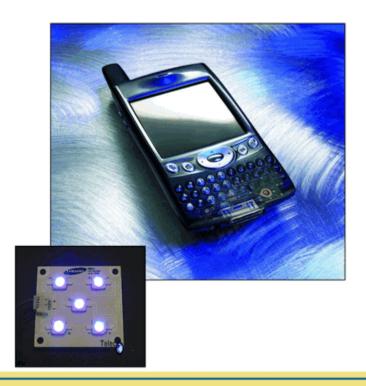






# **Key Markets – Wireless and Photonics**

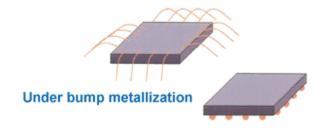
 Thin Film and Packaging materials for varied wireless and photonic applications including RF Power Amplifiers, HBT's, SAW Devices, Light Emitting Diodes (LEDs), Laser Recorders and Micro Electro Mechanical Systems (MEMS)



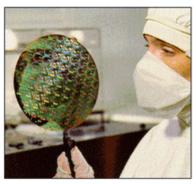


# Key Markets - Semiconductor Wafer Fabrication

- Thin film materials and chamber services for silicon wafer and UBM (Under Bump Metallization) technologies.
- Numerous commercial and military microelectronic applications.



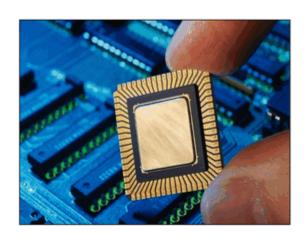






# **Key Markets – Semiconductor Packaging**

- High reliability semiconductor packaging materials.
- Applications focused in space, military and satellite market segments.











# New Product and Technology Development

#### ADVANCED MATERIAL TECHNOLOGIES AND SERVICES

- Magnetic Media and Head Materials
- Under Bump Metallization (UBM) for Flip Chip
- FCCL Materials
- Visi-Lid<sup>™</sup> A transparent lid for New Photonics applications
- Expanded refining/chamber services supporting the thin film materials business
- Silver Alloys for HD-DVD and Blue Ray Disc manufacturing
- Solar Panel Thin Film and Concentrator Materials
- MEMS and Photovoltaic Packaging Materials
- Nanotechnology Materials
- High Intensity LEDs
- Eco-Ru<sup>™</sup> Sputtering Target
- Optical coating materials
- Precious Metal Rod



# New Product and Technology Development

#### SPECIALTY ENGINEERED ALLOYS

- ToughMet® Alloy for High Volume Bearing Applications
- Cupronickel alloy rod for offshore and marine seawater systems
- 390E High Performance Copper Beryllium Strip Alloy for Burn in and Test Sockets (BiTS) applications
- BrushForm 158 and BrushForm96 Copper Nickel Tin Strip alloys for electronics and mechanical spring

#### BE AND BE COMPOSITES

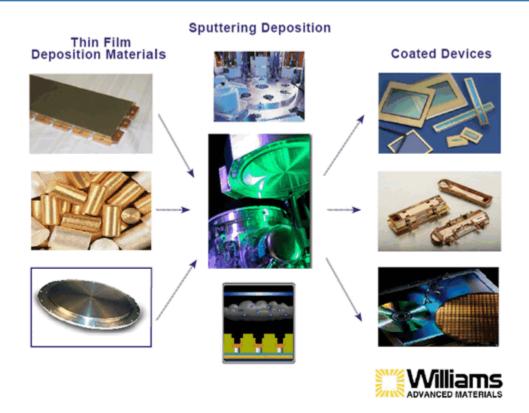
- High Purity Beryllium
- Truextent<sup>™</sup> speaker domes

#### ENGINEERED MATERIAL SYSTEMS

- Li Ion Battery Interconnects
- Solar panel interconnects
- Nitonal processing (medical)



# **Physical Vapor Deposition (PVD) Process**





# **World's only Fully Integrated Beryllium Producer**



New Beryllium Pebbles Plant underway with DOD Title III funding, targeted for completion in 2010



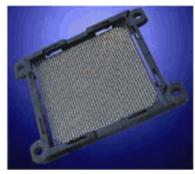
Strip Alloy Applications
(strength, conductivity, spring characteristics ... typically 1% to 2% Beryllium)

### Reliability and Miniaturization

- Current Carrying Springs and Relays
- Integrated Circuitry Sockets
- Electrical and Electronic Connectors
- Air Bag Sensors
- Pressure Responsive Devices
- Fire Extinguisher Sprinkler Heads
- EMI shielding
- Appliance Switches











## **Bulk Alloy Applications**

(strength, corrosion resistance, non-galling, conductivity ... typically 1% to 2% Beryllium)

- Aircraft Bushings
- Heavy Equipment Bearing and Wear Applications
- Oilfield well drilling, completion and production equipment
- Plastic Injection & Blow Molds
- Power Generation
- Tooling for Metalworking
- Undersea/Marine Housings for Telecom & Instrumentation
- Welding Electrodes & Dies













# Toughmet® - a new unique solution for the most challenging wear and load conditions

- Oil & Gas...deeper drilling...tougher conditions
  - Rotary steering drills
  - Sour well drilling and completion tools
  - Sub-sea control valves
  - Blow-out preventions
- · Heavy equipment ... larger equipment ... critical uptime
  - Critical bearings in mining and construction
  - Large vehicle drive trains
  - Industrial pumps
  - Manufacturing equipment bearings
- Aerospace ... larger planes ... heavier loads
  - Landing gear, wheels, and braking systems
  - Airframe attachments
  - Fluid power systems, actuators
  - Boeing 777, 787; Airbus 380, 350
  - Military JSF35, Airbus 400M







Replacing bronze, stainless, and nickel alloys ... strength, lubricity, and wear resistance



### **Beryllium Products – Applications**

(lightweight, strength, dimensional, stability...typically 40% to 100% Beryllium)

- Optical mirrors for NASA space-based telescopes
- Infrared sensors for fighter jet optical targeting, radar and navigation/guidance systems and special ops (FLIR)
- -Structural and electronic components for satellites
- -X-ray windows in medical, security and commercial imaging systems
- -Diaphragms for commercial and concert quality speaker systems











# Technical Materials, Inc. – solving customers' problems with engineered strip metals

#### **Mill Products**

- · Specialty cladding and inlay
- Electron beam welding of dissimilar materials
- · Profiling shapes by milling and/or grinding
- Close tolerance rolling

### **Electroplating**

- · Precious and non-precious metals
- · Overall and selective stripe capabilities
- Combination with current TMI technologies



Disk Drive Arms

Automotive Control Components





Specialty Electronic Connectors

Automotive, Telecom/Computer, Medical, Energy



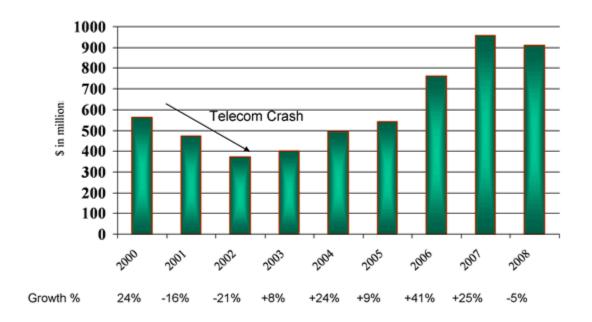
### **BEM – Execution Initiatives**

- Profitable organic growth through new products, new applications, and new services
  - Close collaboration with customers
- Expansion of international base and sales
- Broaden markets and technology
- Leverage above through "smart" acquisitions
- No let up in manufacturing excellence ... Lean Sigma process
- · Increasing shareholder value
- Having the ability and passion to thrive on change !!!



### **Annual Revenue: Historical**

Our diversification and value creation initiatives are leading to strong growth in revenue and profitability





# Our ongoing value creation initiatives are focused in three key areas

#### Growth

- Expanding and diversifying the revenue base
  - Targeting profitable niche growth applications in growing markets
  - New product innovation and service
- Ongoing global expansion
- Strategic acquisitions, fast accretion

#### Margin Improvement

- Lean Sigma-driven operating efficiency improvement
- · New higher value added products
- · Cost reductions

#### **Fixed and Working Capital Utilization**

- Inventory turn improvement
- Lean Sigma-driven factory utilization gains



# **Strategic Highlights**

- The Company is well positioned; strong balance sheet and revolver capacity to operate in this severe economic environment and to take advantage of strategic opportunities as they arise
- · Strong, diverse set of markets served
- Global market reach
- New products and services ... a culture of innovation
- Niche-oriented product offerings
- Acquisitions adding to growth and earnings
- Focus on manufacturing excellence resulting in improved operations
- Strong cash flow



### Vision · Mission · Values

#### Vision

We will be a *leader* in creating innovative engineered material *solutions and services* that make our *customers competitive* in global markets

#### Mission

- ...in support of our vision:
- We bring value to our customers, globally, through innovative technology, service, and collaboration
- Our employees are passionately focused on exceeding customers' expectations
- We are committed to build a strong financial future for our employees and shareholders, striving to consistently grow revenues and earnings
- We are driven to continuously improve our supply chain, creating the highest value for our customers while reducing costs...using Lean Six Sigma
- We design, manufacture, and distribute our products in a safe, environmentally responsible manner

#### Values

- ...We believe in a set of individual and team values, where:
- Each of us is committed to safety as our first priority
- > We are committed to the highest standard of ethics and integrity in our business affairs
- We conduct ourselves with honesty and respect among our fellow employees, customers, suppliers, shareholders, and our communities
- > We are proactive stewards of the safe use of our materials
- We share a trust among our employees that encourages aggressive performance commitments
- We have the authority, individually and in teams, to achieve our goals
- We embrace change and reject complacency
- > We are committed to strengthen the organization by attracting and developing talented, dedicated individuals
- > We collaborate with our customers and suppliers to create higher value
- We are involved in the betterment of our communities

