
**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) May 17, 2010

Brush Engineered Materials Inc.

(Exact name of registrant as specified in its charter)

Ohio

(State or other jurisdiction
of incorporation)

001-15885

(Commission
File Number)

34-1919973

(IRS Employer
Identification No.)

6070 Parkland Blvd., Mayfield Heights, Ohio

(Address of principal executive offices)

44124

(Zip Code)

Registrant's telephone number, including area code 216-486-4200

Not Applicable

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- ☐ Written communications pursuant to Rule 425 under 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 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure

On May 17, 2010, 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 May 18, 2010. A copy of the presentation is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

Exhibits:

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
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99.1	May 2010 Presentation
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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.

May 17, 2010

By: 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

***Houlihan Lokey's
5th Annual Global Industrials Conference
May 18, 2010***

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 advanced 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 20.3 million at 4/02/10
- **Market Cap:** Approximately \$460 million at 4/02/10
- **Component of:** S&P Super Composite 1500, Russell 2000
S&P SmallCap 600, Russell 3000
- **2009 Revenue:** \$715 million
- **Q-1 2010 Revenue** \$295 million
- **Q-1 2010 Diluted EPS:** \$0.33 includes \$0.12 per share of charges,
comprised of \$0.05 per share which includes
acquisition and restructuring costs and \$0.07
per share for the Patient Protection and
Affordable Care Act
- **Debt to Total Capitalization:** 24% at 4/02/09

BEM....*the transformation*

- From Metals & Mining through Specialty Metals to Advanced Materials
- From an “old industrial” to a “new age materials technology” company

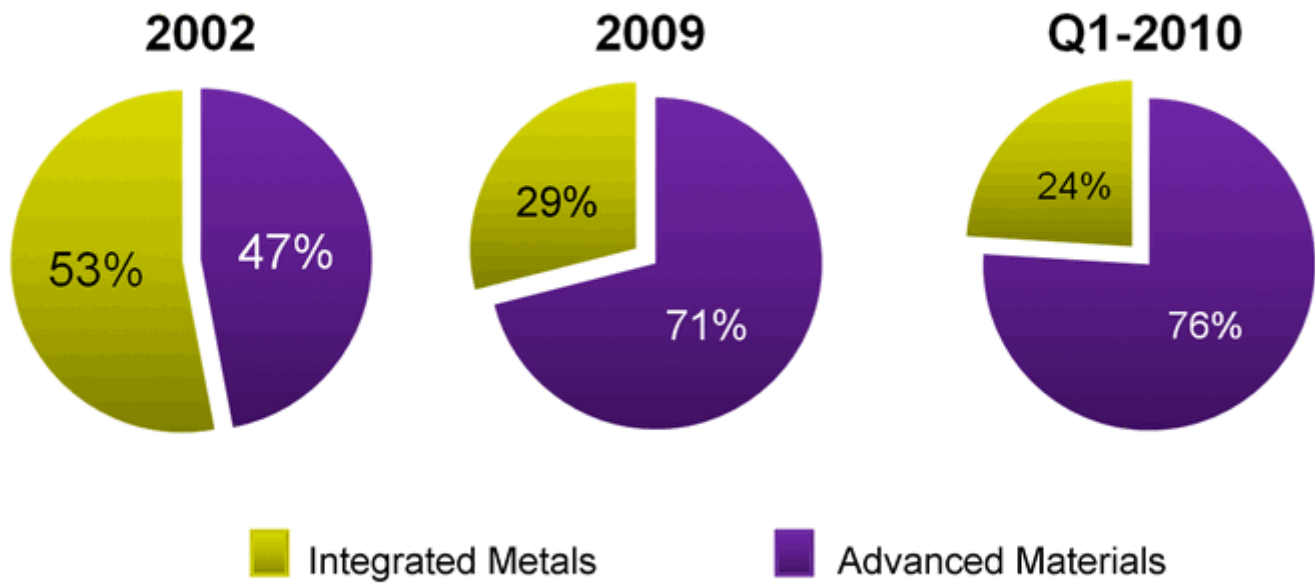
BEM....*the transformation (cont'd)*

- 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

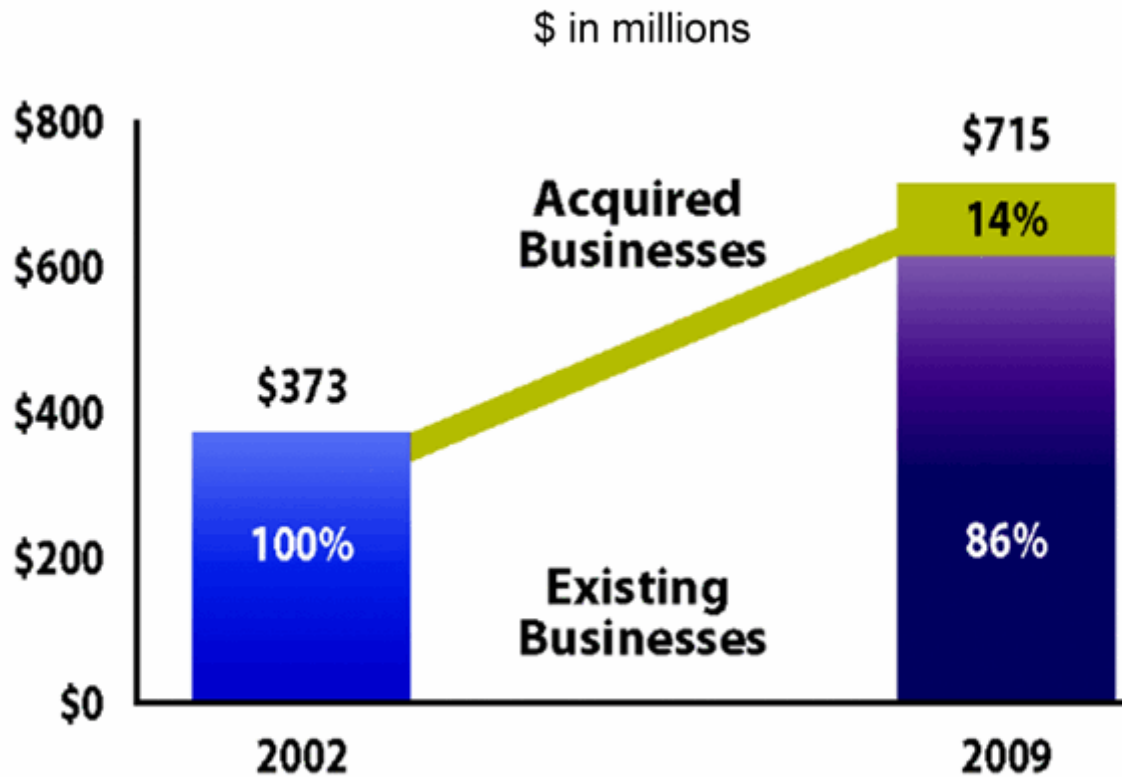
BEM....*the transformation (cont.)*

- 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 12 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.)



Targeted acquisitions increasingly important to total sales



Acquisitions

2005	OMC	Shield kit cleaning services (technology buy)
2006	CERAC	Inorganic chemicals ... powders and evaporative targets (optics, security, solar, semiconductor)
2007	TFT	Thin film vacuum sputtered coatings
2008	Techni-Met	Thin film roll to roll flexible substrate vacuum sputtered coatings (medical)
2009	Barr Associates	Thin film optical filters (defense, aerospace, medical, energy, semiconductor, telecommunications, lighting, astronomy)
2010	Academy Corporation	Gold and silver sputtering targets, large area metallic sheet material, fine wire, and rod and powder (electronics, medical, industrial)

Barr Associates, Inc.

- Acquisition announced on October 23, 2009
- Based in Westford, Massachusetts with approximately 300 employees in three leased facilities in the Westford area
- Leading manufacturer of precision thin film optical filters that enable complex technologies and components throughout the defense, aerospace, medical, energy, semiconductor, telecommunications, lighting and astronomy markets
- Applications include high energy lasers, thermal imaging, night vision, environmental sensing, blood analysis, DNA sequencing, surveillance, targeting, and gas and fire detection
- The transaction, valued at approximately \$55 million, was financed with internally generated cash and proceeds of approximately \$25 million from the Company's \$240 million revolving line of credit
- Expected to be accretive to earnings in 2010

Academy Corporation

- Acquisition announced on January 5, 2010
- Based in Albuquerque, New Mexico with approximately 150 employees in four leased facilities in Albuquerque and Gallup, New Mexico
- Leading provider of precious and non-precious metals and refining services to customers in a number of technically demanding end-use markets
- Markets served by Academy are architectural glass, solar energy, electronics, chemicals, medical, industrial and high value jewelry
- The transaction, valued at approximately \$23 million, was financed with internally generated cash and proceeds from the Company's \$240 million revolving line of credit
- Expected to be accretive to earnings in 2010

Brush Engineered Materials – Major Segments

Q1-2010 Revenue

Advanced Material Technologies and Services

Williams Advanced Materials

PVD Targets
Optical Coatings
Refining
Electronic Packaging
69%

Engineered Material Systems

TMI (Specialty Clad and Plated Strip)

Automotive Connectors
Telecommunications
Consumer electronics
5%

Specialty Engineered Alloys

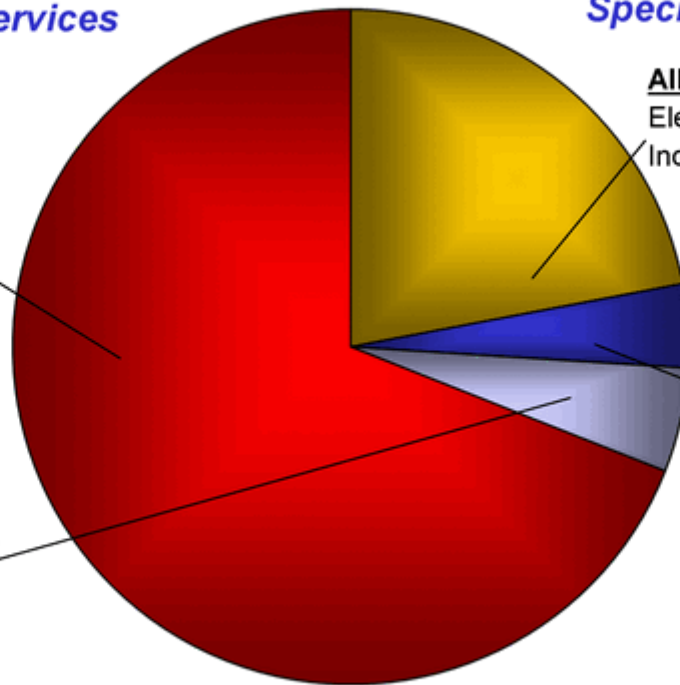
Alloy (Cu based Be and Ni Alloys)

Electronic Connectors
Industrial Components
22%

Be and Be Composites

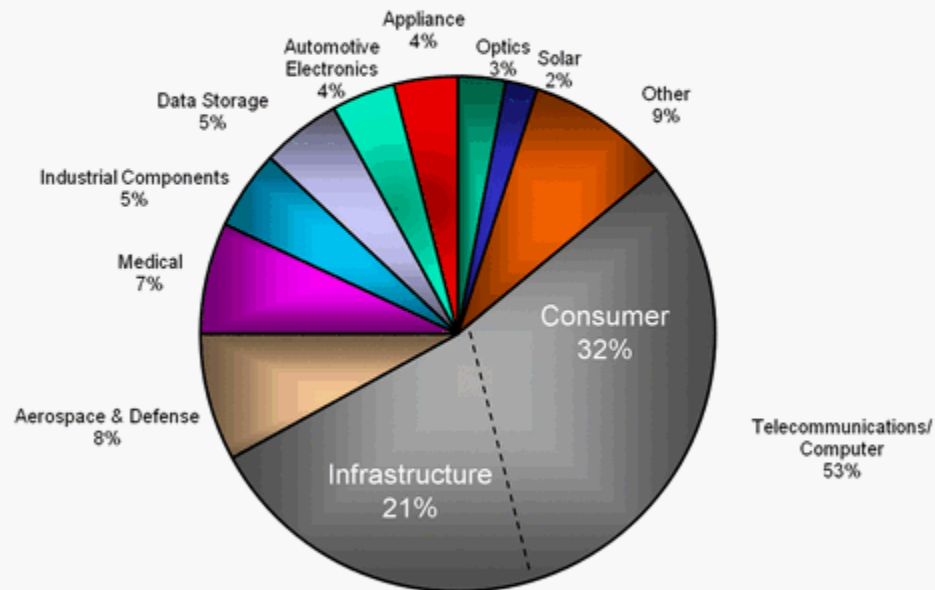
Be Products

Defense/Aerospace
Specialty Commercial Products
4%



Global Leader in High Performance Engineered Materials

2009 Revenue by Market



2009 Recap

- Sales of \$715 million
- Diluted earnings per share of \$(0.61)
- Acquisition of Barr Associates, Inc. for \$55.2 million
 - Barr produces precision thin film optical filters that enable complex technologies and components throughout the defense, aerospace, medical, energy, semiconductor, telecommunications, lighting and astronomy markets

2010 Outlook

- Demand has continued to improve, especially in the consumer electronics and wireless infrastructure-oriented markets
- Recently, we have seen improvement in the defense and industrial markets (oil and gas and aerospace)
- 2010 sales are expected to be approximately \$1.2 to \$1.3 billion
- 2010 expected profit in the range of \$1.45 to \$1.75 per share, diluted

Strength in Challenging Times

Balance Sheet

- Revolver
 - \$240 mm committed facility, matures November 2012
- Debt
 - Debt to total capital of 24%

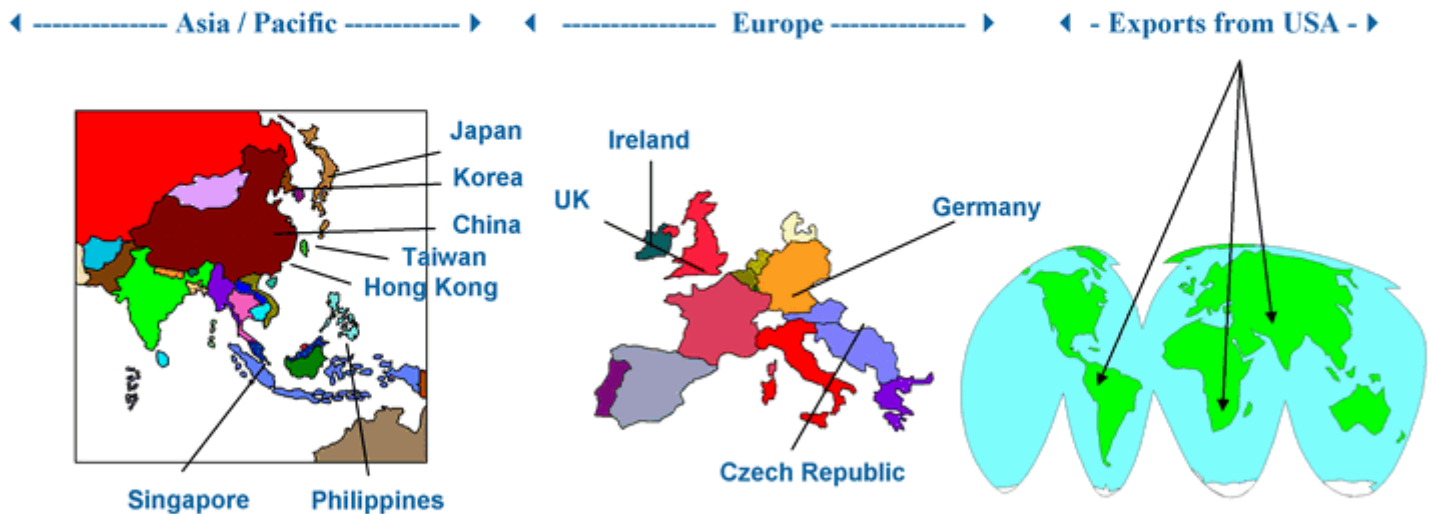
Brush Engineered Materials ... core competency

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
- International sales are approximately 29% of the Company (Q1 2010)
- 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™ and
other wireless communication
devices



Defense



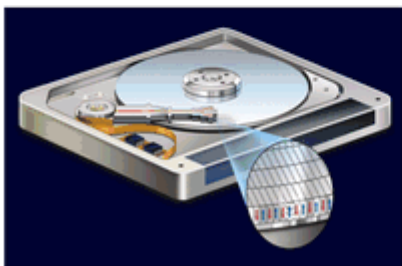
Commercial
Aerospace



Electronic components
in cars and trucks



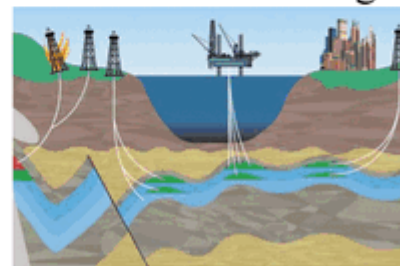
Industrial products for
Oil & Gas and Mining



Medical
Devices



Data Storage



Applications - Cell Phones

Grounding Clips and Audio Jacks (Alloy):

- Brush 60
- Alloy 25/190/290

Internal Antenna Contacts (Alloy):

- Brush 60/17410
- Alloy 25/190/290

Internal Electronics (WAM):

- Thin Film Materials – Power amplifiers, SAW and BAW devices, filters, and IC's
- Frame Lid Assemblies for SAW
- Thin Film Material for backlight applications using LED technology
- Shield Cleaning

Micro Mezzanine Connectors for LCD Screen (Alloy):

- Brush 60

Battery Contacts (Alloy):

- Brush 60
- Alloy 25/190/290

I/O Connector Contacts (Alloy):

- Brush 60/17410
- Alloy 25/190/290

Other Cell Phone Applications:

- **Circuit Board and IC Inspection** (Electrofusion/Be Products):
 - PF-60 Be; IF-1 Be; AlBeMet 162
- **RoHS Compliance Assurance** (Electrofusion):
 - PF-60 Be; IF-1 Be

Applications – Photovoltaic (Solar)

Technology: Crystalline Silicon (Si)

Interconnect Materials

Front and backplane systems for high efficiency designs.

Technology: Flexible Solar Cells / Building

Integrated Photovoltaic:

Thin Film Services:

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

Technology: Cadmium Telluride (CdTe)

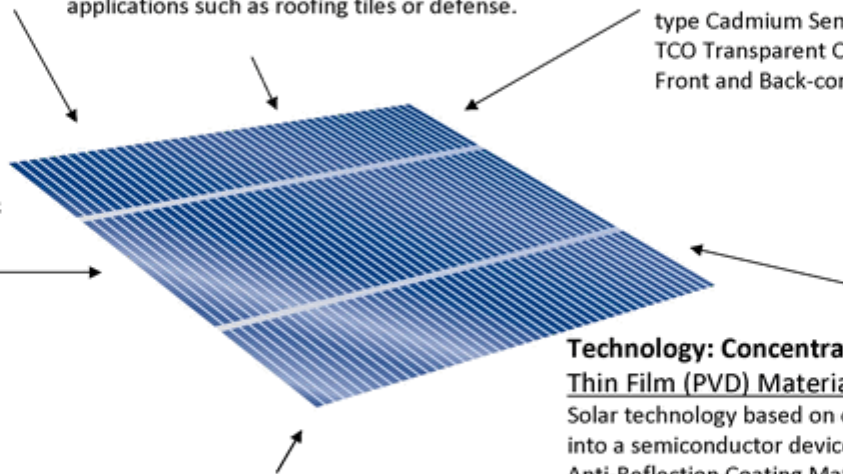
Thin Film (PVD) Materials

Cadmium based solar cell architecture. N and P type Cadmium Semiconductor materials
TCO Transparent Conductive Oxide layers
Front and Back-contact layers

Technology: 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: Amorphous Silicon (a-Si, tandem and multi-junction) Thin

Film (PVD) Materials

Silicon based photovoltaic cells
Front and back contact layers
TCO Transparent Conductive Oxide 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)

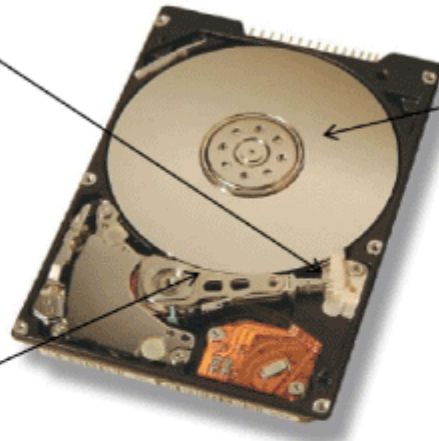
- Sputtering Targets/Evaporation Materials (Precious Metals, Alloys, Non-Precious Metals, Alloys, Magnetic Materials, Heusler Alloys and Oxides)

Disk Drive Arm (TMI)

- Clad Materials (Aluminum and Stainless Alloys)

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.



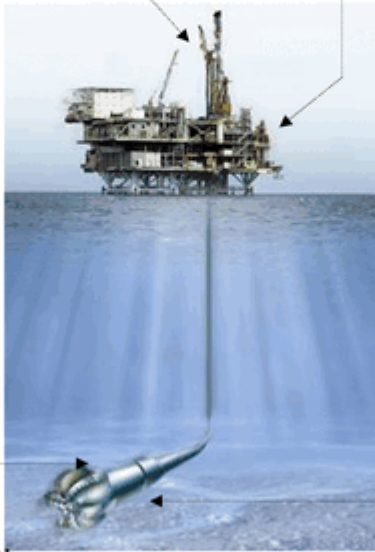
Example – Hard Disk Drive Media
PMR Material Stack

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

Directional Drilling Equipment (Alloy):

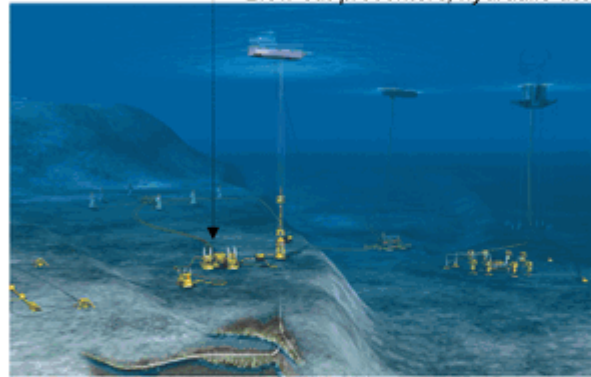
- Brush Alloy 25
- ToughMet® 3

MWD, LWD, MPT systems

Under Water Wellhead Equipment (Alloy):

- Brush Alloy 25
- ToughMet® 3

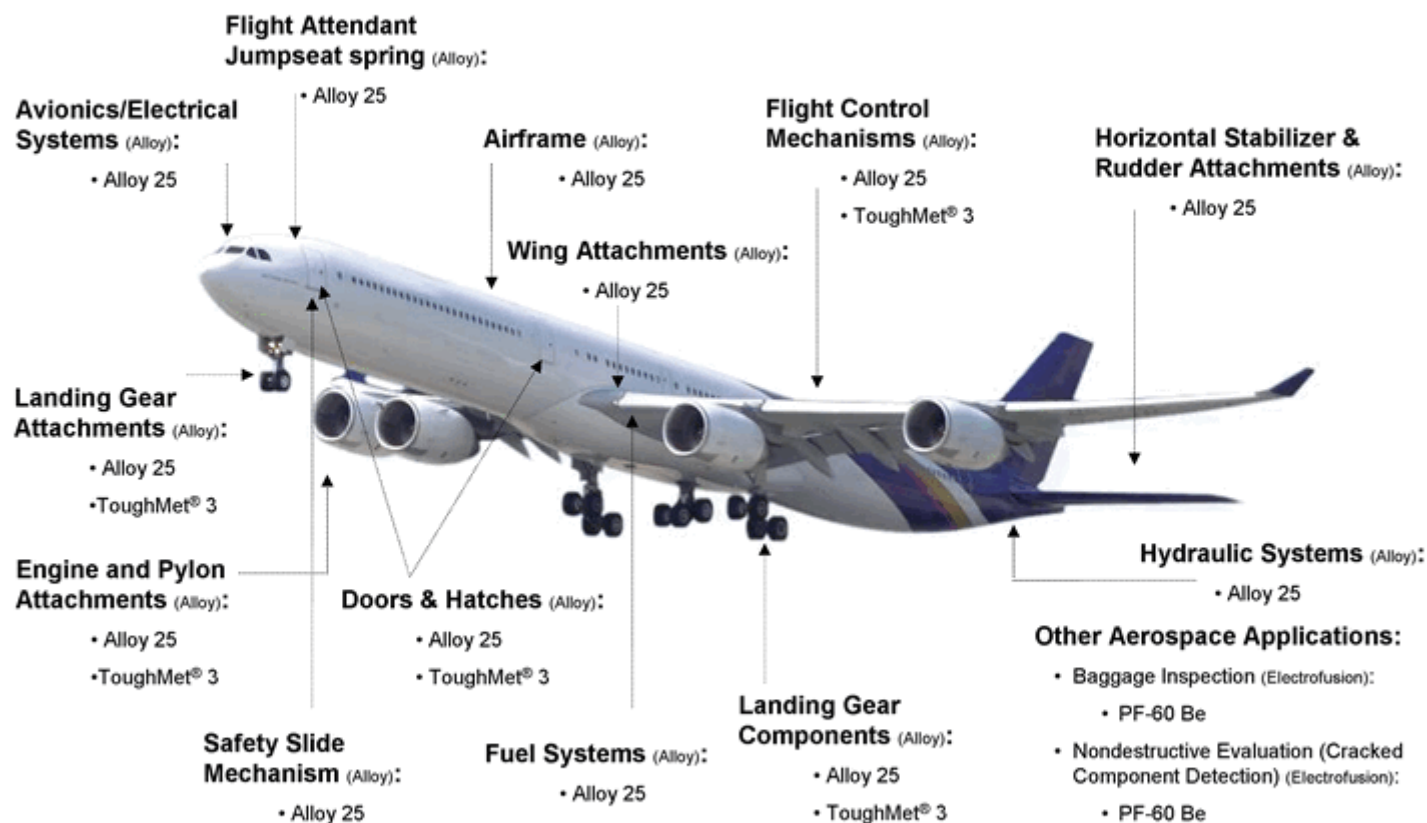
Blow out preventers, hydraulic actuators



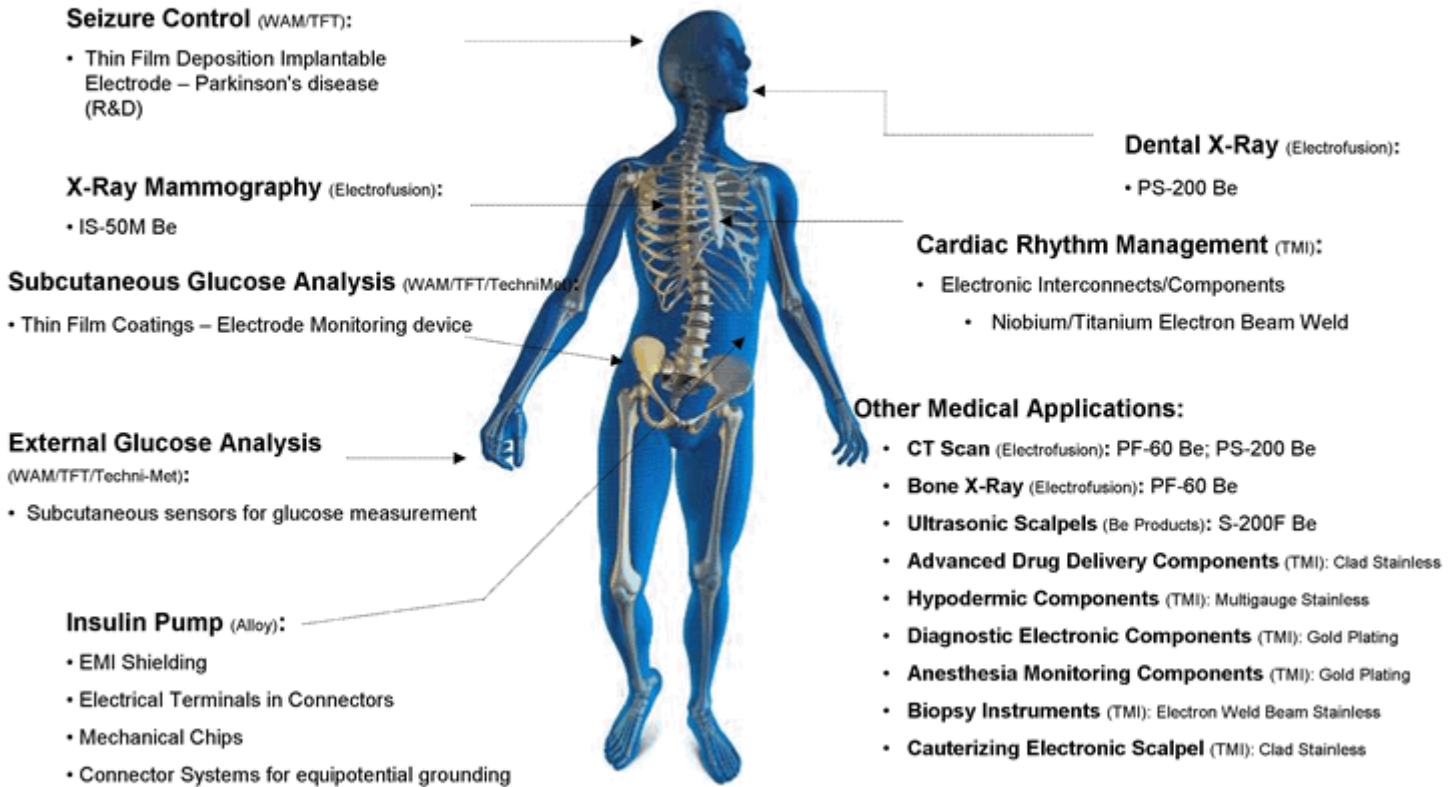
Other Oil & Gas Applications:

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

Applications – Aerospace

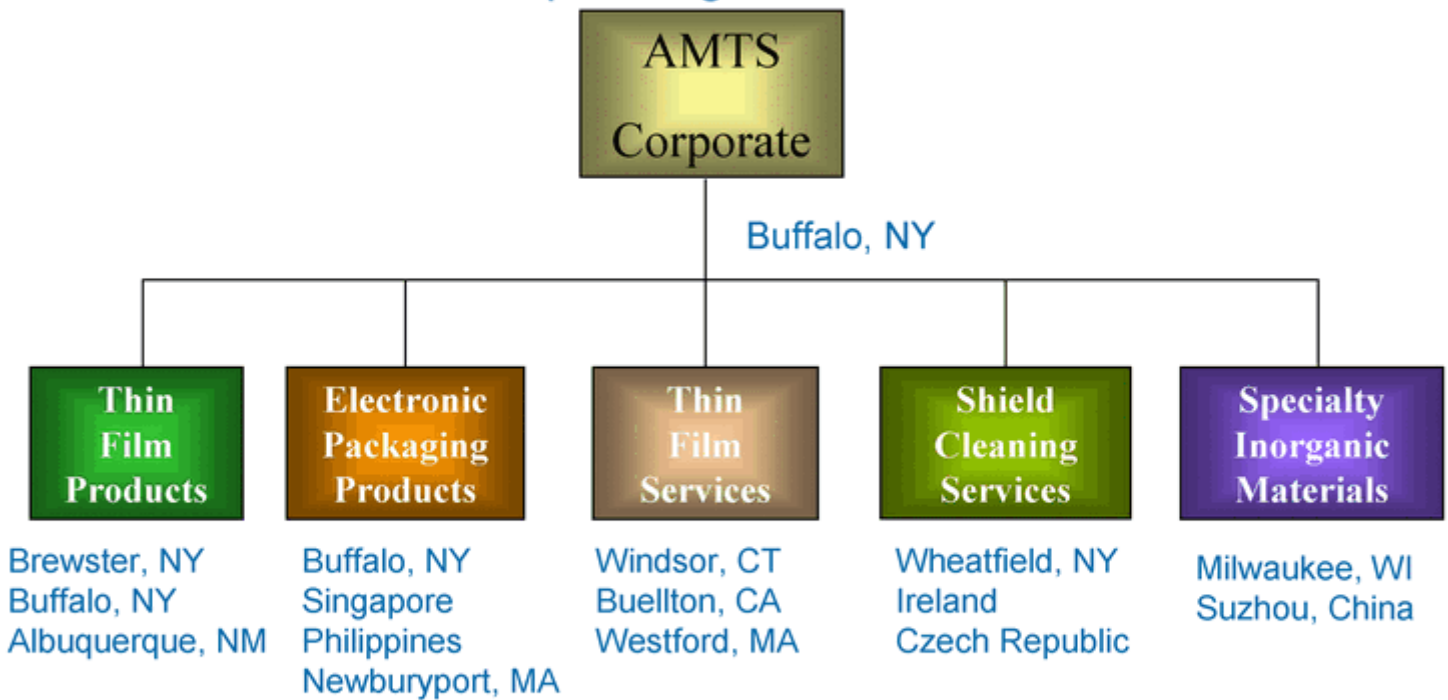


Applications – Medical



Advanced Material Technologies and Services Business Structure Today and Evolving

Operating Locations

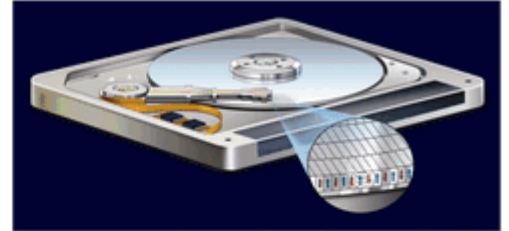


Additional Service Operations: Taiwan, Suzhou, Ireland, Singapore, California

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	– Optics
– Wireless/handsets	– Medical
– Semiconductor	– Solar
– Optical media	– Defense
– Photonics	
- **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 , Barr Associates and Academy Corporation



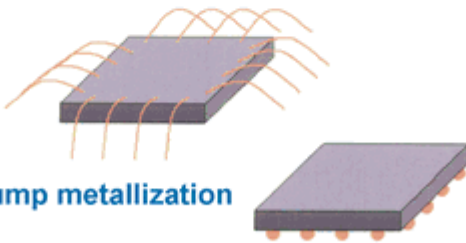
Key Markets – Wireless and Photonics

- 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

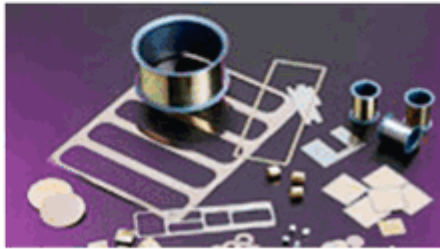
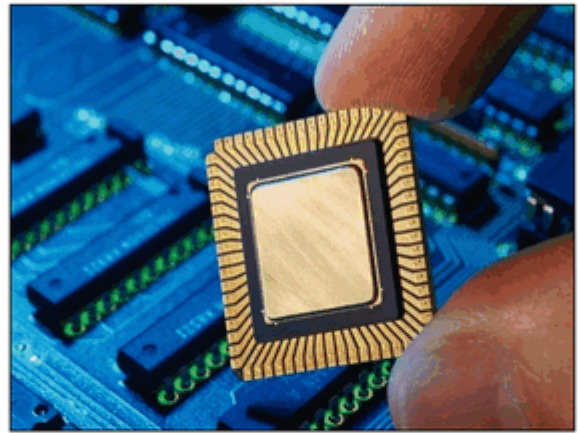
- Thin film materials and chamber services for silicon wafer and UBM (Under Bump Metallization) technologies.
- Numerous commercial and military microelectronic applications.



Under bump metallization

Key Markets – Semiconductor Packaging

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



Solder preforms and clad materials



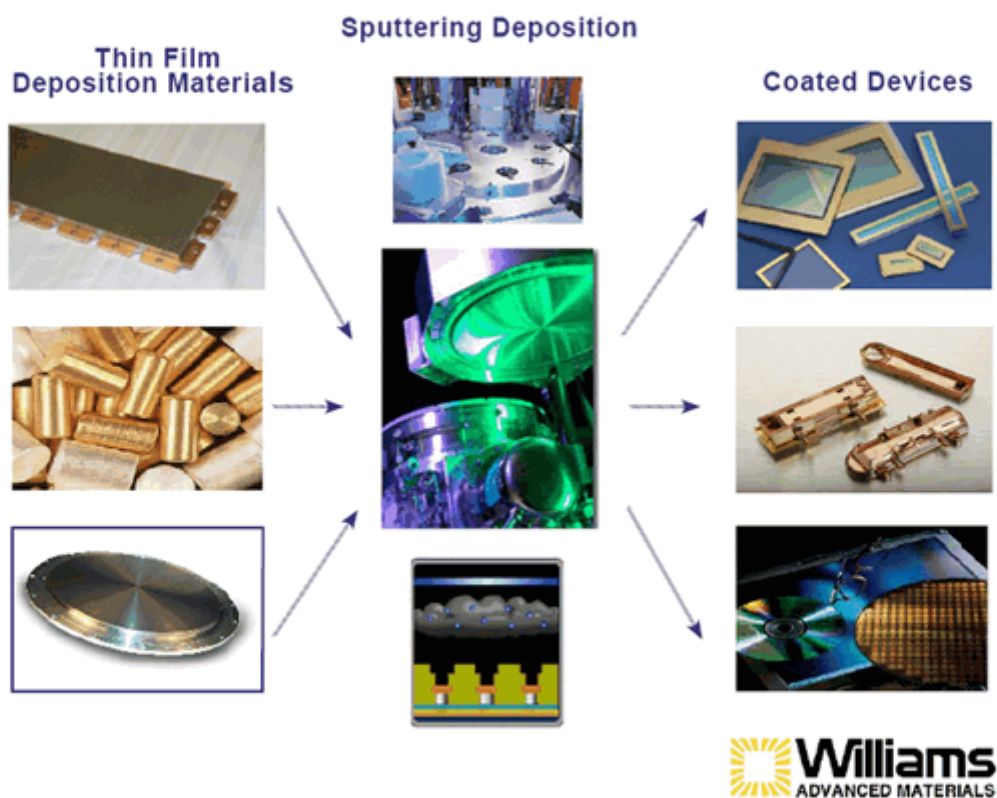
New Product and Technology Development

- **ADVANCED MATERIAL TECHNOLOGIES AND SERVICES**
 - Magnetic Media and Head Materials, Eco-Ru™ Sputter Targets
 - Under Bump Metallization (UBM) for Flip Chip
 - FCCL Materials
 - Optics Coating Materials
 - Precision Optical Thin Film Coatings (specialty filters)
 - High Value Optical Coatings (large format optic components)
 - Visi-Lid™ - Optical package for New Photonics applications
 - Expanded refining/chamber services – Compliment to Thin Film Materials & Coating businesses
 - Silver Alloys for HD-DVD and Blue Ray Disc manufacturing
 - Solar Panel Thin Film and Concentrator Materials
 - Solar Panel Barrier Film Coatings (BIPV)
 - MEMS and Photovoltaic Packaging Materials
 - Nanotechnology Materials
 - Precursor materials for High Intensity LEDs
 - Precious Metal Materials – rod, bar, sheet, slugs, etc.

New Product and Technology Development

- **SPECIALTY ENGINEERED ALLOYS**
 - ToughMet® Alloy for High Volume Bearing Applications
 - Cupronickel alloy rod for offshore and marine seawater systems
 - Alloy 390E and Alloy 25BiQ 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**
 - Nearer net shape fabrication (hot isostatic pressing)
 - Truextent™ speaker diaphragms
 - Coatings
 - Nuclear beryllium materials
- **ENGINEERED MATERIAL SYSTEMS**
 - Li Ion Battery Interconnects
 - Solar panel interconnects
 - Nitinol processing (medical)

Physical Vapor Deposition (PVD) Process



World's only Fully Integrated Beryllium Producer

**Bertrandite Ore
Mining & Extraction**



Delta, UT

**Casting, Rolling
& Finishing**



Elmore, OH

**Thin Gauge Rolling
& Finishing**



Reading, PA

**Service &
Distribution Centers**



Global Network

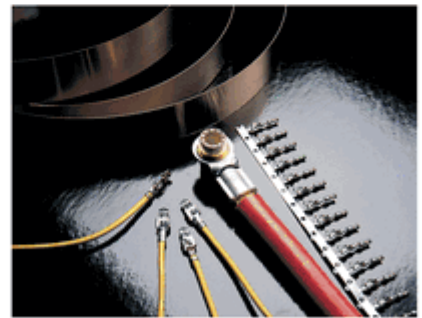
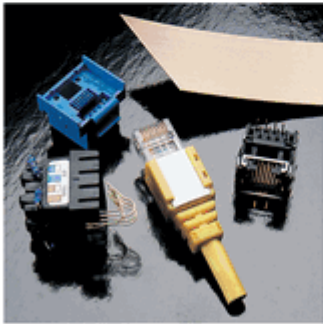
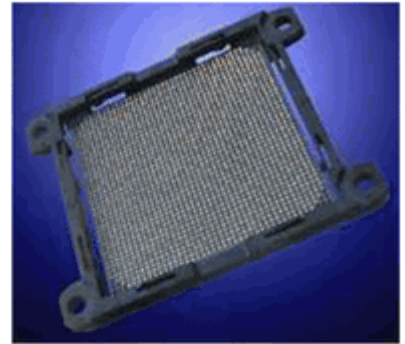
*New Beryllium Pebbles Plant underway with DoD Title III funding,
targeted for completion in second half of 2010*

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

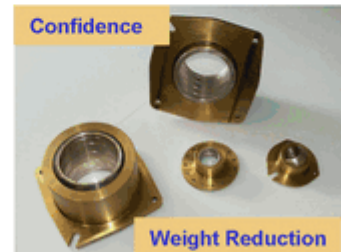
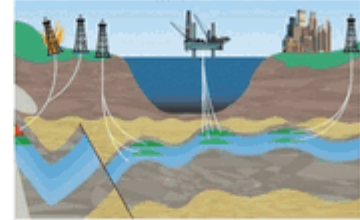
(strength, corrosion resistance, non-galling, conductivity ... typically 1% to 2% Beryllium)

- 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



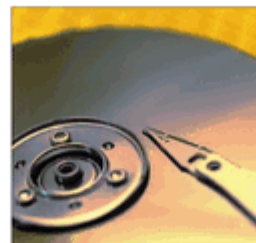
Technical Materials, Inc. – solving customers' problems with engineered strip metals

Mill Products

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

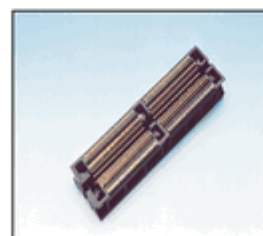
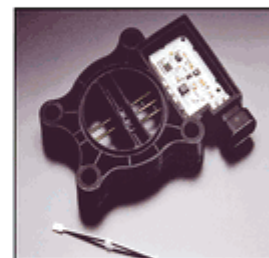
Electroplating

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



Disk
Drive
Arms

Automotive
Control
Components



Specialty
Electronic
Connectors

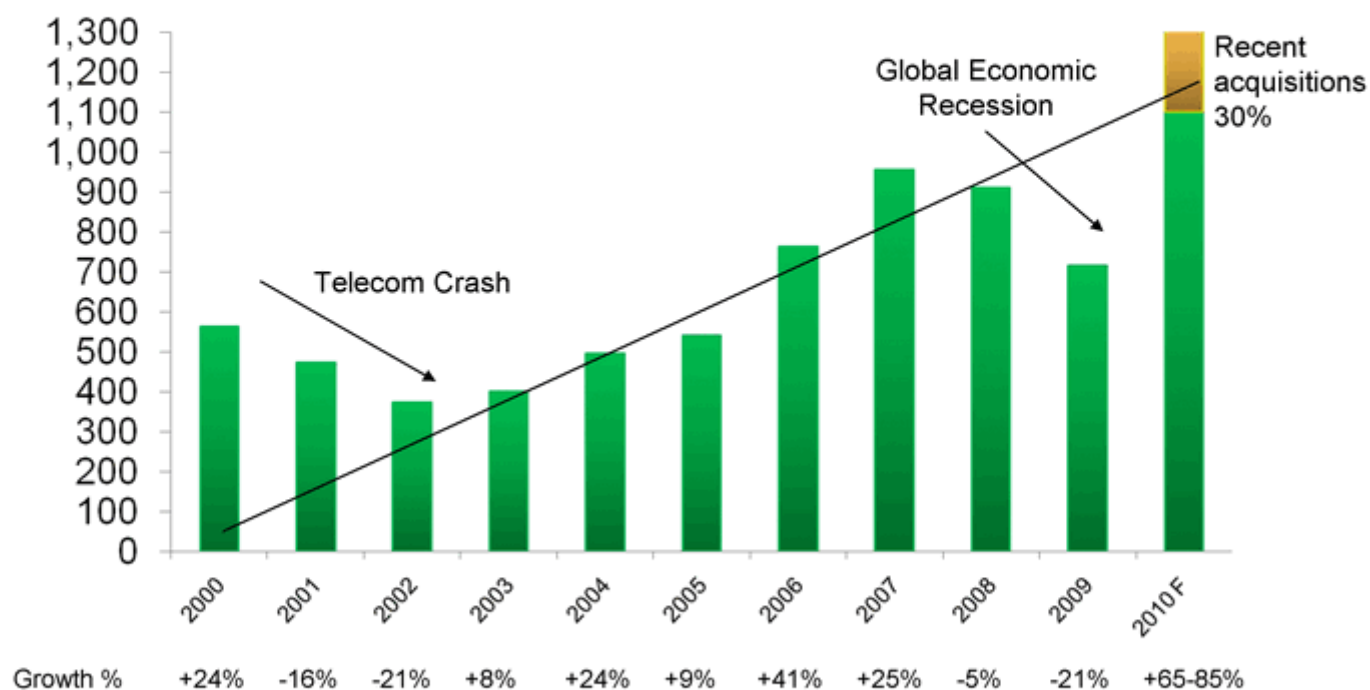
Automotive, Telecom/Computer, Medical, Energy

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

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