



COMPANY OVERVIEW

**NANOTECHNOLOGY PARTNERSHIP FORUM SEPTEMBER 13, 2010
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
GAITHERSBURG, MARYLAND**

ACKNOWLEDGEMENT



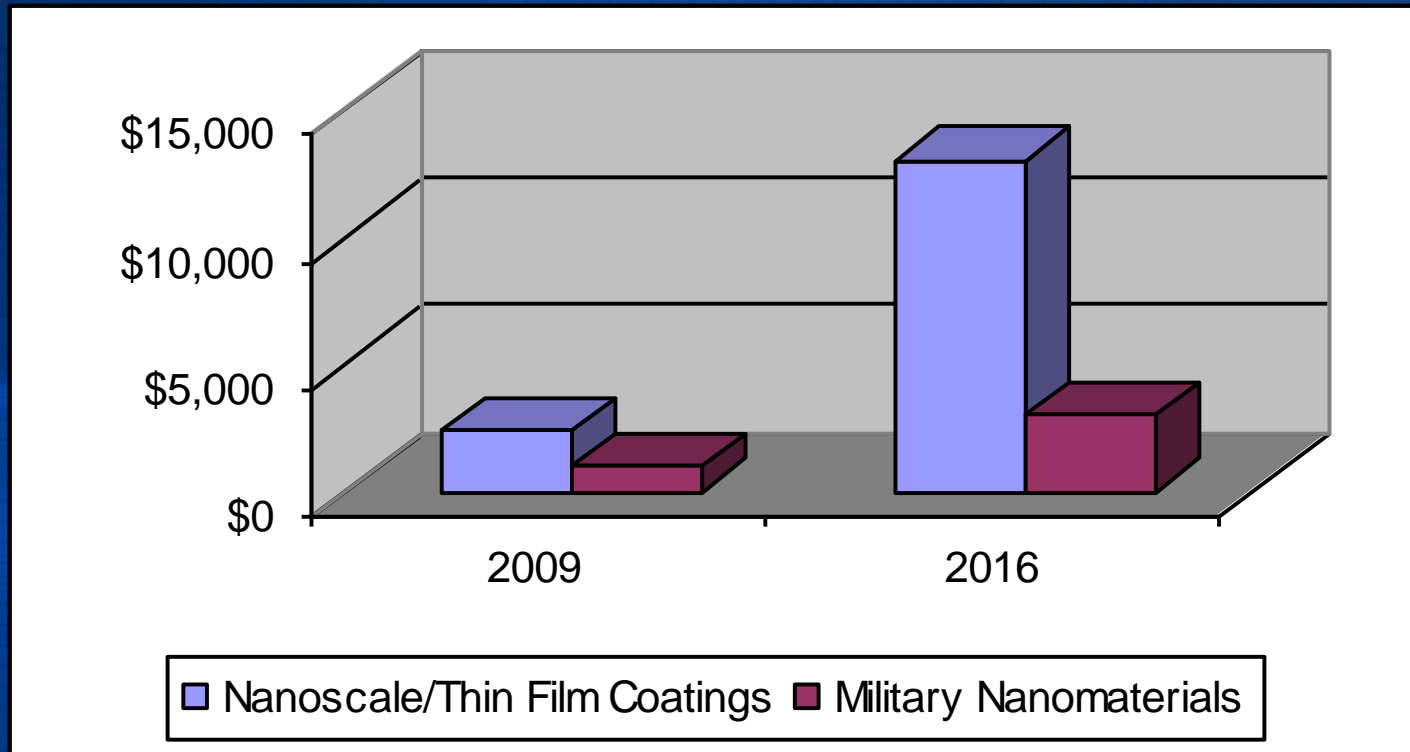
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Pixelligent Applications

- Commercial Coatings:
 - HB LED's – 10-30% More Efficient
 - CMOS Sensors – More Light Captured
 - Microlithographic – Improved Chip Performance
- Military Applications:
 - Dielectric Coatings – Spacecraft
 - Polymers in Space
 - Rocket Propulsion Systems
- Applications in Development for:
 - Industrial Metals
 - Lubricants
 - Solar Panels



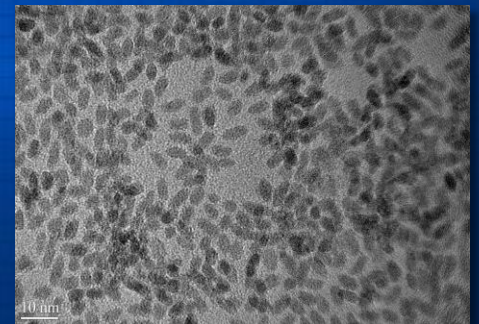
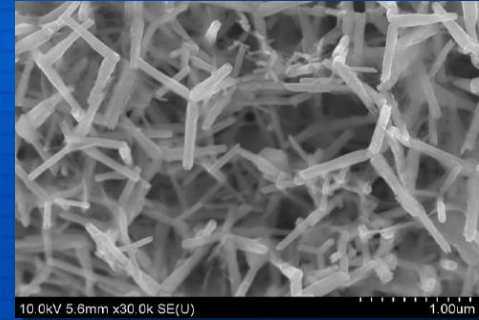
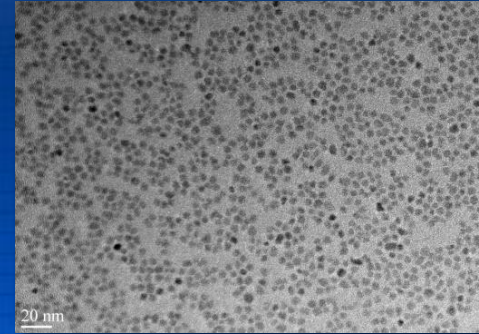
Initial Target Markets



	2009	2016	Growth
Nanoscale/Thin Film Coatings	\$2,400	\$13,000	442%
Military Nanomaterials	\$1,000	\$3,000	200%

Pixelligent Technology Differentiators

- Accurately Control Shape & Size:
 - Nanoparticles 2 nm – 10 nm, Delivers Maximum Benefits
 - Spheres, Rods, Tetrapods, Finely Tune the Targeted Properties
 - Synthesize a Variety of Materials
 - High Loading with Uniform Dispersion
 - Scalable



NIST TIP Scale-Up Summary

- **\$8.2M Matching Program**
 - Start Date 2/2010
 - 3 yr. Program
 - Joint Development w/Brewer Science
 - Scale-up to Kg's/Day
 - Multiple Applications
 - Ahead of Schedule
- Only Nanotechnology Company in NCR to Win Award



Manufacturing

- Manufacture to Control Quality/ Supply
- Highly Concentrated, Reduces Required CapEx
- Facility On-Line 1Q2011
- Expect to Produce 100g/day by 1Q 2011
- Expect to Produce Multiple KG's/Day YE 2011



Business Model

- Manufacture & Sell our Nanomaterials
- License Nanocomposite Manufacturing Processes
- Partnerships with Leading Suppliers in Certain Markets
- Direct Sales to End-Users

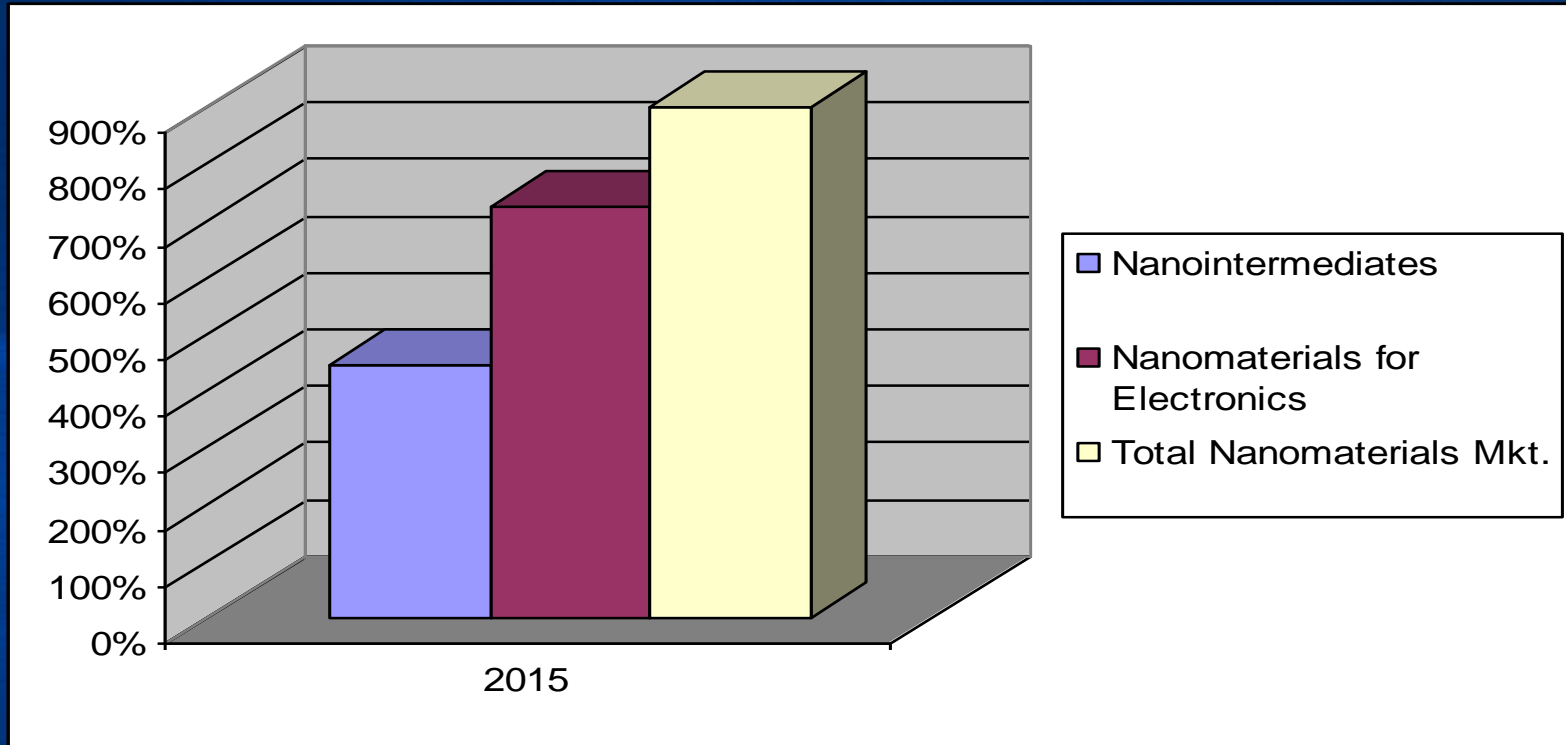


Building A Successful Nanotech Company

Looming Opportunities & Challenges



Nanomaterials Come of Age

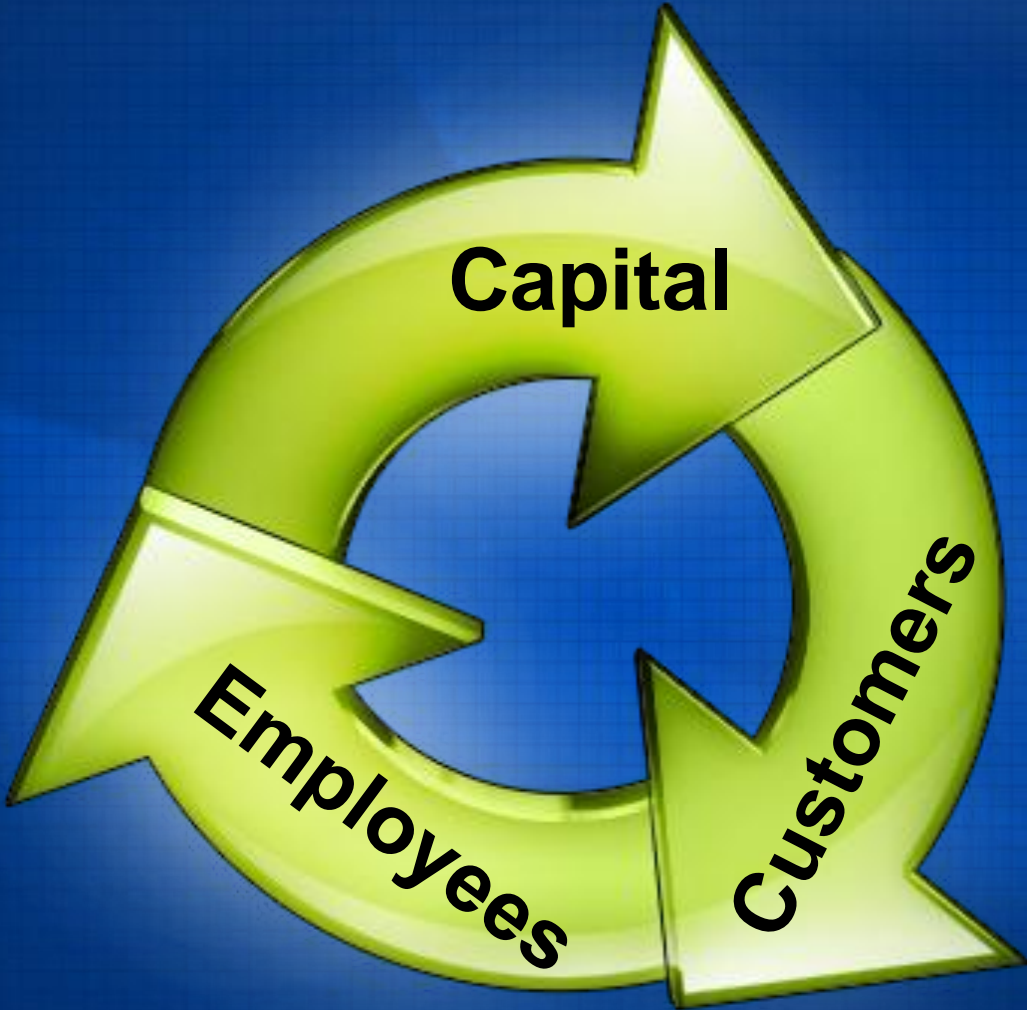


(\$ Billions)

Nano-enabled Products Shipped
 Nano-enabled Electronics Products
 Nanointermediates (suppliers)

	2009	2015	Growth
Nano-enabled Products Shipped	\$254	\$2,500	900%
Nano-enabled Electronics Products	\$72	\$595	725%
Nanointermediates (suppliers)	\$0.6	\$3.2	446%

Challenges Building a Nanotech Co.



The Valley of.....Hard Work!

- **Access to Capital**

- Private → VC, Angel, Family Office
- Strategic → Partners, Corp VC
- Public → Growth Stage, Maybe
- Federal Government → Grants, Contracts, Loans
- State/Local → Grants, Low Interest Loans



Need to Know Your Audience

Attracting Customers/Partners

- Product Has to Easily Integrate
- Cost vs. Value Proposition
- Uniqueness in The Market
 - Nice to Have, Like to Have, Killer App
- IP Position
 - Cannot Reverse Engineer
 - May Violate
 - Are Violating



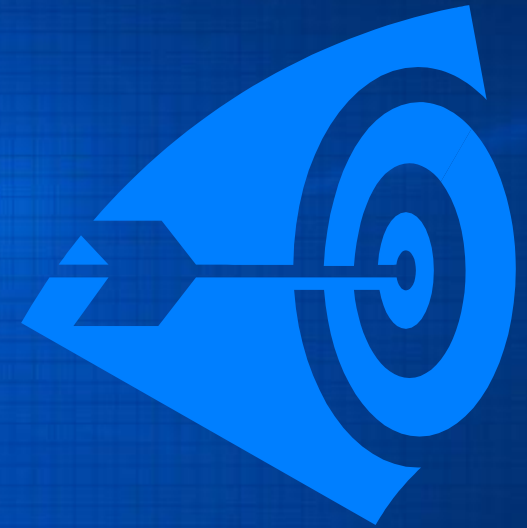
ES&H Challenges

- ES&H Issues
 - Lack of Guidance
 - Potential for Over Regulation
 - Potential for Conflicting Regulations
 - EPA, OSHA, FDA, etc.
- Paying for Past Sins
- Dramatically Increasing Costs
 - Limits Job Growth
 - Reduces Investments in Capital Equipment
- Other Countries w/Less Stringent Requirements
 - Loss of American Jobs
 - Great US Opportunity Lost
- Industry and Government Can & Should work Together



Nanotech Opportunities

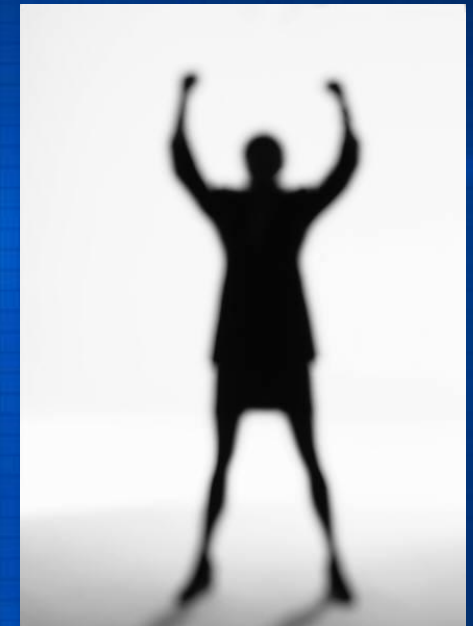
- The Global Demand is Real & Growing Quickly
- R&D Spending Shift
 - Investing in IP for Product Support vs. Innovation
 - US Patent Filings Flat Last 3 yrs
 - Japan Remains a Constant
 - China, Korea Accelerating
- Japan Increasingly Active in Buying Nanotech Products/Companies



A Target Rich Environment

Nanotech Transactions

- 8/18/2010 Nanogram sold to Teijen for \$25-\$50M
 - Sold a Subsidiary in 2004 for \$45M
- 8/10/2010 - Samsung Invests \$15M in Nanosys, Receives Licenses for Electronics and Solar Applications
- 8/13/2008 - Nantero Sells Military and Government Business Unit to Lockheed, Undisclosed



Food for Thought



- Global Demand for Nanotech Enabled Solutions is Real & on the Rise!
- Companies Are Now Efficiently Making & Selling Their Products, The Returns Will Follow
- The Federal Government Has Been The Most Important Source of Nanotech Funding
 - IT WILL PAY OFF IF IT STAYS THE COURSE
 - OR ALLOW OTHERS TO REAP THE BENEFITS

CONTACT INFO

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