

## Nanotechnology Moves from Discovery to Commercialization: \$50 Billion in 2006 Product Sales, \$12 Billion in Funding

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For two decades, the term "nanotechnology" has been primarily associated with an R&D race spanning the public and private sectors. But nanotech is now shifting from discovery to commercialization, with \$50 billion in nano-enabled products sold worldwide last year from pharmaceuticals to power tools - creating sustained competitive advantage for companies as diverse as Abbott Labs and Black & Decker. This transition - and a path for businesses and investors to harness it - is the focus of Lux Research's all-new reference guide The Nanotech Report, 5th Edition, announced today.

"Business and financial leaders have relied on The Nanotech Report to inform their strategic decisions since 2001," said Dr. Michael Holman, head of Lux Research's Nanomaterials Intelligence service. "As nanotechnology moves from the lab to the marketplace, we've overhauled The Nanotech Report end-to-end - and introduced new sections on the commoditizing nanomaterials market, public equity investing in nanotech, and nanotech for energy and environmental applications."

In two volumes and more than 500 pages, The Nanotech Report, 5th Edition provides information, data, and judgments to help business and financial leaders make superior strategic decisions. Key findings from the study's content include:

- \* Nanotechnology is completing a 20-year transition from lab to market, matching a historical pattern previously seen in fields like plastics and biotech. More than \$50 billion in products sold last year incorporated nanotechnology, with very diverse applications: While pharmaceutical firms like Merck and Gilead sold more than \$3 billion worth of nano-formulated drugs, Black & Decker scored a market share coup by using high-performance nanophosphate batteries to drive a successful new line of 36V power tools.
- \* Funding for nanotechnology in 2006 totaled \$11.8 billion, up approximately 13% from 2005. The U.S. no longer holds a dominant position: Europe outspent the U.S. on government nanotech R&D in 2006, and Asian companies spent the most on corporate nanotech R&D. Further, growth rates for both spending categories in both Europe and Asia exceed the U.S.
- \* Nanotechnology venture capital spending reached \$699 million in 2006, up 10% from 2005. Contrary to popular opinion, the venture capital community has not moved on from nanotech as a theme: More new companies with the term "nano" in their names received funding in 2006 than in any prior year.
- \* After years of inconsistent production, the quality of basic nanomaterials like carbon nanotubes and ceramic nanoparticles is rising - and prices are falling, making these materials relevant for new applications. The \$49 million carbon nanotube market, for example, grew at 87% in 2006 on the entry of large suppliers like Bayer MaterialScience and Mitsui - threatening the position of start-ups like Hyperion Catalysis and Nanocyl.
- \* At an overall level, small public firms developing nanotech applications are not seeing impressive stock market returns: Out of a comprehensive list of 41 publicly-traded companies worldwide that derive a significant proportion of their revenues from nanotech applications, the average annualized stock price growth rate since the 2002 Nasdaq trough was 0.36%. Within that group, however, select individual companies showed annualized increases of up to 81%.

The Nanotech Report, 5th Edition, draws on the ongoing market intelligence gathered by the Lux Research analyst team, the world's leading business advisors on science-driven innovation. Rigorous quantitative models, exhaustive secondary research, and more than 1,000 primary interviews with business and technology executives went into the production of The Nanotech Report, 5th Edition. Highlights of the study's content include:

- \* All-new public stock market investing coverage: Analysis of the full universe of 41 "nanotech stocks" from the NYSE to the AIM, with segmentation, and recommendations for investors
- \* All new nanomaterials market section: Pricing, shipment volumes, and market shares for materials including carbon nanotubes, fullerenes, metal nanoparticles, ceramic nanoparticles, and quantum dots
- \* All-new "nanotech in cleantech" section: Analysis and statistics of how nanotechnology is driving innovation in product segments like solar cells, energy storage, and water filtration
- \* Company profiles: 121 profiles of nanotech innovators from start-ups like Xtalic to large corporations like Donaldson, spanning four continents and a dozen countries, with standardized scorecard ratings
- \* Technology profiles: 28 assessments explaining key nanotechnology applications from the ground up, with market sizes, future growth rates, and key companies, people, patents, and milestones
- \* Venture capital: Comprehensive analysis of every nanotech venture capital deal ever closed by country, sector, year, and sponsoring VCs from 1989 through 2006
- \* Patents: A 20-year patent study focusing on white space and defensibility for eight key categories of nanomaterials, addressing 4,995 patents covering more than 103,000 claims
- \* Environment, health, and safety (EHS): Comprehensive data on nanotech EHS publications, analysis of worldwide nanotech EHS regulation, and a framework for addressing nanotech EHS risks

The Nanotech Report, 5th Edition, is available directly from Lux Research in packages ranging from single-user licenses to site-wide agreements. Existing Lux Research clients should contact their account manager for access. For other inquiries, contact John Schwartz at +1 (646) 649 9582 or [john.schwartz@luxresearchinc.com](mailto:john.schwartz@luxresearchinc.com). For report details and complete listings of companies and technologies profiled, see <http://www.luxresearchinc.com/tnr>.

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