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## MILITARY NANOTECH SPENDING PROVES DIFFICULT TO TAP

U.S. Department of Defense has funded \$195 million in small business nanotech grants since 2002, but only 6% made it past a first phase

New York, NY – February 27, 2006 – With threats to the U.S. increasingly coming from terrorist organizations, rogue nations, and insurgencies, the military is driving a major effort to improve its capabilities – making it one of the best perspective buyers for applications of nanotechnology. But companies large and small that supply these nanotech solutions are failing to exploit the military market effectively because of mismatched development strategies, according to a new report from Lux Research entitled “Setting Supplier Strategies for Military Nanotech Applications.”

“Despite military and defense buyers’ deep pockets, diverse needs, and risk-friendly profile, many perils make selling to these clients tough going,” said Lux Research Senior Analyst Mark Bünger, author of the report. “When we examined the fate of suppliers that applied for the 809 small business grants from the Department of Defense, we found that long lead times, IP issues, and an inability to scale up make success hard to achieve.”

To assess military nanotech opportunities for commercial organizations, Lux Research identified 809 Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants totaling \$195 million that were issued by the Department of Defense for nanotechnology applications. The grants were categorized in seven application domains: propellants and explosives, biomedical, sensors, electronics, power, structural materials and surfaces, and coatings and filters. In addition, Lux Research constructed an evaluation tool to assess 46 applications across the seven domains on price/performance, military priority, and commercial potential. Among the report’s highlights:

- Nanotech applications in electronics, power, surfaces, coatings, and filters are good candidates for military and commercial co-development. They both meet high-priority military challenges and address large, near-term commercial markets.
- Biomedical applications have stronger commercial opportunities than military ones, though military demand in many cases offer support for early-stage development.
- Sensor and structural materials applications are unlikely to break out of a military niche – because military buyers value their performance enhancements enough to support higher costs, where most commercial entities do not.
- Propellants and explosives applications fall by the wayside, lacking major commercial interest and ranking relatively low on military priority.

Suppliers of nanotechnology-driven solutions will need new approaches to make the military and defense market work for them. “Today, small suppliers seek SBIR grants for narrowly-defined components of larger systems that the military needs, and small and large suppliers both turn to systems integrators to incorporate their inventions into complete solutions,” said Bünger. “Suppliers should recognize the inherent risks in both paths and take appropriate steps to mitigate them – by focusing on commercial co-development early and avoiding over-reliance on military sources of revenue.”

“Setting Supplier Strategies for Military Nanotech Applications” contains analysis of a comprehensive set of Department of Defense SBIR and STTR grants from 1988 by sector, grant phase, and deal size. It also presents data from interviews with 17 government officials, start-ups, and large corporations working with the Department of Defense. The report and its underlying data set are available immediately to clients of Lux Research’s Nanotechnology Strategies advisory service. For information on how to become a client, contact Rob Burns, Vice President of Sales, at (646) 723-0708.

**About Lux Research:**

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