

## **NIST Center for Nanoscale Science and Technology Established to Support Nanotechnology from Discovery to Production**

Supporting/Contributing Agencies: DOC/NIST

In May 2007 the Department of Commerce made a major commitment to the nation's nanotechnology infrastructure when it established the NIST Center for Nanoscale Science and Technology (CNST) to accelerate innovation in nanotechnology-based commerce. Rapid commercial development of nanotechnology—in particular, the speed with which industry can bring a specific new nanotechnology from discovery to production—depends critically on the availability and efficacy of applicable measurement tools and processes at each stage of the transition. Developing these tools and processes will have an immediate and significant impact on the commercial viability of nanotechnologies in a diverse array of fields.

The CNST operates by design as a multidisciplinary center for developing and disseminating new nanoscale measurement and fabrication technologies, with an overarching goal of increasing the competitiveness of U.S. industry in nanotechnology and nanomanufacturing. The Center supports the development of nanotechnology from discovery to production through a research program and a nanofabrication facility, the NanoFab. The research program develops innovative nanoscale metrology and processing capabilities, and is accessible via collaboration with CNST scientists. The NanoFab is a shared-use facility operated on a cost-reimbursement basis that is accessible through a simple application process. It provides researchers from industry, government, and academia rapid access to a comprehensive suite of state of the art tools and processes for nanofabrication. The NanoFab facility is a unique national resource, combining easy access, tool and process development, and training, while providing researchers from across the nation access to NIST's world-class scientists in support of new nanotechnology-based applications. With its focus on commerce, the CNST is working to accelerate innovation in a wide range of industries with broad societal impact.



Figure 1. The CNST NanoFab includes a 19,000 square-foot cleanroom, with most tools in class 100 space.

### **References/Publications/Patents**

[www.cnst.nist.gov](http://www.cnst.nist.gov)