



## **New Nanotechnology Signature Initiative to Accelerate Sustainable Design**

*Fourth Nanotechnology Signature Initiative highlights the importance of informatics in advancing nanotechnology*

(May 14, 2012) Today the agencies participating in the U.S. National Nanotechnology Initiative (NNI) announced their fourth Nanotechnology Signature Initiative. This signature initiative will stimulate the development of models, simulation tools, and databases that will enable the prediction of specific properties and characteristics of nanoscale materials. This in turn will accelerate commercialization of nanotechnology innovations that maximize benefits to humans and the environment while minimizing risks.

The signature initiative, *Nanotechnology Knowledge Infrastructure: Enabling National Leadership in Sustainable Design (NKI)* identifies four areas that will benefit from focused attention:

- 1) **A diverse collaborative community** of scientists, engineers, and technical staff to support research, development, and applications of nanotechnology to meet national challenges
- 2) **An agile modeling network for multidisciplinary intellectual collaboration** that effectively couples experimental basic research, modeling, and applications development
- 3) **A sustainable cyber-toolbox** to enable effective application of models and knowledge to nanomaterials design
- 4) **A robust digital nanotechnology data and information infrastructure** to support effective data sharing, collaboration, and innovation across disciplines and applications

As announced today by Dr. John Holdren, Assistant to the President for Science and Technology, the NKI will also engage with, and connect to, the Materials Genome Initiative, a multi-stakeholder effort to accelerate domestic advanced materials discovery and deployment. Synergistic areas for the NKI and the MGI exist in all four areas of the NKI and in particular would include community-building, protocols, and best practices for data management and sharing. The NKI activity described here contributes directly to both the NNI and the MGI, making it a first-of-its-kind effort for linking, impacting, and implementing multiple related Federal interagency initiatives.

The NKI also addresses research needs identified by the NNI member agencies in the NNI Strategic Plan and the NNI EHS Research Strategy, as well as recommendations by the President's Council of Advisors on Science and Technology and the National Research Council to increase interagency efforts in informatics and to develop new Nanotechnology Signature Initiatives.

To view the NKI signature initiative, please visit [Nano.gov](http://Nano.gov).

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The National Nanotechnology Initiative (NNI) was established in 2001 to coordinate Federal nanotechnology research and development. The NNI provides a vision of the long-term opportunities and benefits of nanotechnology. By serving as a central locus for communication, cooperation, and collaboration for all Federal agencies that wish to participate, the NNI brings together the expertise needed to guide and support the advancement of this broad and complex field.