

Nanomanufacturing Summit 2009

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Information Needs for Nanomanufacturing

Luncheon Discussion Panel

Thursday May 28

Independence West

The nanomanufacturing enterprise will move forward sluggishly without access to timely and relevant information. What kind of information do cross-sector practitioners need and where can it be found? The Information Needs for Nanomanufacturing Panel will discuss a range of initiatives geared toward the collection and exchange of critical information for the nanomanufacturing community.



Phil Lippell
Policy Analyst
National Nanotechnology Coordination Office

The National Nanotechnology Initiative (NNI) involves 26 Federal agencies and thousands of researchers. What kinds of information do they generate, through their NNI activities, that are essential for nanomanufacturing? What tools are available (or should be developed) for linking NNI data so that interested parties can discover, contribute, validate, and utilize this information?



Kristen Kulinowski
Faculty Fellow in the Department of Chemistry
Rice University

The GoodNanoGuide is a collaboration platform designed to enhance the ability of experts to exchange ideas on how best to handle nanomaterials in an occupational setting. It is meant to be an interactive forum that fills the need for up-to-date information about current good workplace practices, highlighting new practices as they develop.



Manish Mehta
Executive Director, Industry Forums
National Center for Manufacturing Sciences (NCMS)

The NCMS is currently under contract with the National Science Foundation (NSF) to conduct a third study (first two were performed in 2003 and 2005) assessing key trends and concerns of organizations pursuing commercialization of next-generation nanotechnology products and technologies. A new online survey will be launched in June 2009 to develop an aggregate cross-industry profile of the US nanotechnology industry. The main purpose of these successive cross-industry studies is to help meet an important information need for policy makers and industry analysts by developing a comprehensive profile of the diverse organizations pursuing nanomanufacturing technologies for many applications. Due to the size, scope and diversity of input sources being surveyed, the NCMS studies are expected to provide an indication of the relative competitiveness of the fast-emerging nanomanufacturing supply-chains, target technology sectors and their eco-systems. The presentation will provide an outline of the myriad contemporary strategic issues being addressed by the NCMS.



Anne Chaka
Senior Research Scientist, Physics Laboratory
National Institute of Standards and Technology

Today global competition is driving industry to reduce the time and cost to develop and manufacture new products. Discovery and process optimization are limited by a lack of property data as well as the lack of insight into mechanisms and factors that determine performance. For the vast majority of nano-enabled applications, particularly mixtures and complex systems, the evaluated property data simply do not exist and are difficult, time-consuming, or expensive to obtain. Hence there is an urgent need for computational methods and simulation to supplement and guide experimentation, and enable better technical decision-making. This presentation will discuss the need for systematic property data and validated methods to predict performance identified in recent cross-industry workshops, and approaches to drive the science forward to address current gaps.