



Executive Summary of the ANSI-NSP Panel Meeting

The first meeting of the ANSI Nanotechnology Standards Panel was held September 29-30, 2004. Nearly one hundred stakeholders from academia, government, industry and non-governmental organizations participated in the two-day meeting aimed at defining the needs and priorities with respect to nanotechnology standards activities. Terminology and nomenclature were the special focus for this initial meeting. The group made great progress in identifying the relevant and controversial issues facing universal standards for nanotechnology terminology. Both small break-out groups as well as discussion after general presentations provided a natural forum for the interchange of ideas and opinions. What follows this executive summary are a list of specific recommendations agreed upon by the ANSI-NSP steering committee, as well as reports on specific topical areas from each break-out group.

In considering nanotechnology nomenclature and terminology, the Panel participants reached consensus on several important issues. The first is the importance and urgency in establishing terminology and nomenclature standards, and the recognition that there is little established work in this field. Additionally, many emphasized the need to garner as much international cooperation in this effort as is practical. Next was the recognition that for nanotechnology, the consistent naming of nanomaterials is an essential first step for any standards activity. Many participants emphasized the need for terminology that addressed nanomaterial properties, production processes and applications, and most agreed that it will be to define the structural parameters of a nanomaterial type at the onset. An effort in 'inorganic nanostructures' that seeks to describe the composition (interior and surface), morphology, size and crystallinity is feasible in the near-term.

While the panel was in general agreement on specific issues for terminology within material classes, there was substantial debate about the more general use of the terms 'nanotechnology,' 'nanomaterial,' and 'nano' generally. Some felt that keeping the definitions broad allowed the most relevant topics within this area and resonated with the spirit of the National Nanotechnology Initiative (NNI) definition. Others preferred to narrow such terms more substantially, and where possible, draw distinctions in the names between artificial and naturally occurring nanomaterials, science and technology, among other issues.

The group also addressed the need for future standards activity beyond terminology and nomenclature. The three broad classes identified by all break-out

groups were: I) measurement and metrology, II) environmental, health, and safety guidelines, and III) processes and manufacturing. The group felt that future ANSI-NSP activities could include a focus on one or more of these areas.