Why Not ISO?

What we are doing is directly applicable to ISO standardization in the future. However, I believe the most efficient way to get ISO standards in completely new areas is for ISO to adopt or modify existing standards rather than initiate completely new activities. Thus, our intent is to develop standards that will be universally applicable and that will hopefully be adopted by ISO in due course.

ASTM is an accredited standards-making body, and its standards are often adopted by ISO (in identical or modified form). The main drawbacks that I see to initiating the process through ISO directly are the following:

(1) There is no opportunity for open participation of all interested parties when using ISO. Each country has one vote, and that vote is given by the official ISO representative from that country. There is much less ability for a technical community (such as ours) to be highly integrated into the process. With ASTM, all interested parties from around the world can join the activity and vote. Thus, suppliers, vendors, bureaus, end-users, academics, etc. can participate freely and vote on the final outcome and standards.

(2) The ISO process takes a lot of time. It is a very formal process with many steps. Getting a significant activity going that covers all the various needs of our industry would require a significant amount of time, resources, and effort. ASTM is willing to establish a new technical committee completely focused on our industry that enables us to initiate as many parallel standards-making activities as our community decides to initiate. If we have increased participation, we can do more, and do it more quickly.

(3) The Rapid Technologies and Additive Manufacturing (RTAM) Community of the Society of Manufacturing Engineers (SME), with input from others, did a search of the various ways to make and create standards. The consensus was that ASTM provided the most efficient, broadest mechanism for worldwide participation in standards-making that would be relevant to our entire industry. ASTM is a truly global standards-making body with more than 12,000 standards developed. It has more than 100 years of experience in standards-making and its process is well-developed and proven. We can establish our own policies for global participation to ensure that it is seen as a truly global initiative and not just perceived as an "American" standards-making activity. For instance, some committees have put into place rules that require their meetings to move around the world in different locations to facilitate global participation. Also, ASTM has IT support staff that can help us do a lot of work via electronic means, including video and teleconferencing.

(4) Many of us were recently surprised to learn about a three year old activity within ISO to develop a standard for preparing laser sintering test specimens. I applaud those who worked on this standard and appreciate anyone who is doing work in this area. I have talked to many people in the industry since learning about this activity and only a couple of those I discussed it with had any knowledge of these activities. The fact that it took three years to come up with a variation to an existing standard and that a majority of people in the industry were neither involved nor informed of this activity illustrates the points I was making above. This has led me to believe even more strongly that we need to use processes outside ISO to build consensus standards and then get ISO to adopt the most important standards at the appropriate time. Our planning meeting at ASTM in

November 2008 included participation from people involved in the ISO activity, and they too voted to initiate this activity with ASTM, as they saw it as valuable (it should not be seen to detract from or supplant anyone else's work in standards).

Regarding the U.S. National Institute of Standards and Technology (NIST), within the scope of this new activity, we could resurrect any previous work that others were doing. As this is a community-driven activity, we have the freedom to set our own priorities via consensus, based upon the level of participation and support we receive from the worldwide community.

These are my thoughts, and should not be taken as an official position of ASTM or SME or of those who met for the planning meeting. However, I believe these sentiments are widely held.

Feel free to ask any clarifying questions.

—Brent Stucker