

From: Marc Rothstein [mailto:mlrothstein@primesynthesis.com]
Sent: Friday, September 23, 2011 4:58 PM
To: amtech
Subject: AMTech Comments

To Whom It May Concern:

I have attached my comments on the Proposed New Advanced Manufacturing Program.
Thank you for the opportunity to provide my input for such a valuable new concept.

Sincerely,

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Comments on How to Structure Proposed New Program: Advanced Manufacturing Technology Consortia

From: Marc Rothstein, President, Prime Synthesis, Inc.

The following comments are keyed to the question numbers in the NIST Request for Information:

1. The AM Tech consortium should have a somewhat broad focus, covering manufacturing advancements that could possibly span multiple industries. For example, a new material for chemical purification could benefit the pharmaceutical industry as well as other chemistry-related industries such as environmental and electronics manufacturing.
2. A mixture of small, medium and large companies should be eligible for the AMTech consortium. This will allow the experience and greater resource levels of the larger companies to supplement the innovative and agile character more typical of small businesses. Inclusion of institutes of higher education, government agencies and other non-profit organizations will encourage them to focus their expertise and technologies on commercial applications.
3. The AMTech consortium should set membership limits, but also limit membership duration so new companies and institutions can become involved and older members will not have an inordinate amount of influence on the program.
4. A funding model that awards funds to small businesses and institutions of higher learning , while collecting funds from large companies would encourage the sharing of innovation from small business and academia with the sponsoring large businesses that could more easily implement technological advancements.
5. Proposals for consortia funding should be evaluated on the basis of market need, competitive advantage on a global basis, and innovation- in that order.
6. Consortium funding should be available for research, prototype development, and commercialization of technologies that would benefit U.S. manufacturing.
7. Since global markets are important to realize the full potential of a new manufacturing technology, funded activities should not be restricted to those used in U.S. manufacturing. However, the funded activities should only apply to technologies developed and owned by U.S. companies.
8. The best way to facilitate the involvement of small business in AMTech consortia is through funding of their R&D efforts. Another way would be to match them up with academic institutions, government facilities and mid/large businesses that could expedite the commercialization of their efforts.
9. Establishment of databases of non-confidential technology summaries and commercial manufacturing problems/needs would be a good way to disseminate knowledge and technology through consortia.
10. Academia should benefit financially from their contributions to a joint project, as long as the concept originated with a business. The IP should belong to the business as a way of encouraging innovative companies to join the consortia.
11. Planning and initiation of consortia should happen at the government organization level, (NIST) with paid consultation by U.S. businesses during the planning process.

12. Cost should be shared by mid/large businesses (% of capitalization) that would benefit from the new technology and government organizations (% of annual budget) as a way for them to encourage commercial outlets for their technologies.
13. Research proposals for consortia funding should be evaluated on the basis of innovation, market need, and competitive advantage on a global basis- in that order. Preference should be give to proposals that have already been awarded government grants under programs such as SBIR and STTR.
14. No comment.
15. No comment.
16. Limitations should be placed on individual memberships in the consortia.
17. AMTech consortium's performance should be measured on the number of new manufacturing technologies commercialized each year, along with the total monetary impact of those technologies.
18. The real-time measurements of a research award cannot pre-maturely assess the work in progress. Each proposal should have a time-table of milestones which should be used for real-time measurement and evaluation of projects.
19. The NIST AMTech program should be evaluated by the time required to start the program, the rate of new projects funded after start-up, and the annual monetary impact of completed projects.
20. No comment.
21. A NIST AMTech representative should be assigned to meet with the appropriate business and academic resources so that projects can be expedited, tracked and commercialized. Each such NIST representative would have a portfolio of proposed and current projects that are consistent with their area(s) of expertise. The portfolio representatives should have a mechanism of communicating with each other so that projects can also benefit from expertise outside of their portfolio and across the entire consortia.
22. Technical opinions should make use of experts in other Federal programs and agencies. Perhaps each agency should have a primary contact to route AMTech questions and issues to their most appropriate expert.
23. This can be a model program, which other agencies can use to develop their own programs that could be applied to more specialized industries. Ultimately, NIST's role could change from managing a more general AMTech program, to over seeing the network of individual Agency consortia. This new role could facilitate sharing of resources and ideas across the system.