

- (1) What are the key problems and issues facing small U.S. manufacturers and their competitiveness and opportunities for growth in the near-term (1 to 2 years), mid-term (3 to 5 years) and/or long-term (more than 5 years)?

We need to compete on a level playing field with other countries and their manufacturing sectors. If we can't, then the federal government needs to provide tax breaks to small manufacturers to make sure we are not at a competitive disadvantage vis-a-vis other countries. Access to trained workers. We need a federal initiative to develop an apprenticeship program modeled after the highly successful program that has been producing skilled workers out of high schools across Germany for the past 100 years.

- (2) What advanced manufacturing technologies are and/or will be needed by small U.S. manufacturers for the companies to be competitive and grow in the global marketplace in the near-term (1 to 2 years), mid-term (3 to 5 years) and/or long-term (more than 5 years)?

Continued development of "machine intelligence", hardware and software that allow machines to provide real-time data on production levels and predict component failures before they happen.

- (a) What would be the appropriate Manufacturing Readiness Level [6] or Technology Readiness Level [7] for those technologies in order for small U.S. manufacturers to consider adoption?

No response

- (b) What information will be required for small U.S. manufacturers to understand a technology or related group of technologies and the risks and opportunities associated with making or not making an investment in any given technology?

No response

- (c) How is the information about advanced manufacturing technologies best delivered to small U.S. manufacturers and/or MEP Centers that support those small U.S. manufacturers?

E-mail campaigns, magazine advertising, regular mail, industrial distributors who provide these services

- (3) What technologies and/or business models are important to small U.S. manufacturers as they choose and participate in any particular supply chain?

No response

- (4) What complementary business services, including information services, are and/or will be needed by small U.S. manufacturers and/or MEP Centers to take full advantage of advanced manufacturing technologies at the company or supply chain level?

No response

- (5) Are there any other critical issues that NIST MEP should consider in its strategic planning for future investments that are not covered by the first four questions?

No response