

Introduction

This document is in response to the Request for Information (RFI) for the funding of projects that meet the expressed needs of small and medium sized manufacturers. The intent of this document is to provide information to the NIST Hollings Manufacturing Extension Partnership (MEP) program management team from a variety of sources.

This document represents conversations from a variety of manufacturers across the state, results of a Manufacturing Needs Assessment performed approximately 6 months ago in order to better understand the needs and challenges of manufacturers towards their growth, and from a recently released report from a partner investigating the national manufacturing outlook.

The responses to the stated questions are not listed in any order of priority of needs unless stated otherwise.

Responses

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

Manufacturing companies responded with a variety of answers to this question in the Needs Assessment survey. Specifically, the question was stated “*please identify the THREE greatest needs of your company*”. The top five weighted responses by the manufacturers were 1) How to attract and retain qualified talent; 2) Adopting lean manufacturing technologies to increase production capacity without adding employees; 3) Incorporating emerging technologies and modern manufacturing practices; 4) Programs to teach basic workforce skills; and 5) How to manage business growth.

These top five responses, as recorded from approximately 300 manufacturers, should come as no surprise. These are the factors that affect them NOW, but what we also need to think about and identify are the factors that will affect them in the future as well. This is where the mid-term and long-term opportunities reside, and should represent the initiatives for NIST MEP. As Henry Ford stated, “If I asked customers what they wanted, they would have stated a faster horse.” We need to help lead them.

Companies that realize that growth comes not only from cutting operational costs, but also from “ongoing R&D, expanding to new markets, and long-term strategic planning” are the ones that are poised for success. Translated, this could mean R&D in materials, process, technologies and automation among others.

The largest, most common thread among manufacturers interviewed stated that their biggest challenge for the long-term was strategic planning and the implementation of the plan. Further, one of the primary challenges of implementing a strategic plan is tied to near-term item 1 from above, the need to be able to attract and retain qualified talent.

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?

Technology is changing business at an ever-increasing pace. Those companies that can easily identify relevant technologies for their business or operation will be the ones that grow the fastest and will be the most successful. Technological advances will come from a variety of sources and areas – universities, national labs, innovator’s garages, entrepreneurial classes, etc. We need to be able to easily identify new and emerging technologies, and make them easily discoverable to the manufacturing sector.