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President Obama's Advanced Manufacturing Partnership Supported By New Report Today

Smart Manufacturing Coalition Sets Ten Priorities For A New Public-Private Partnership Program

Washington DC, June 24, 2011 — President Obama's Advanced Manufacturing Partnership plan announced today is supported by a new report also released today called "***Implementing 21st Century Smart Manufacturing.***" The Smart Manufacturing Leadership Coalition (SMLC) developed the report to establish a roadmap and set the top ten priorities for modernizing 20th century factories with 21st century digital information and automation technology to change the way manufacturing is done and capture the economic, efficiency and competitiveness benefits.

"Advanced manufacturing technology is rapidly transforming the global competitive landscape," said two of the SMLC leaders Jim Davis, vice provost IT, chief technology officer for the University of California – Los Angeles and Sujeet Chand, chief technology officer for Rockwell Automation.

"The companies — and nations — that act now to seize its promise will thrive in the 21st century. Those who fail to fully engage in smart manufacturing will rapidly fall behind," they emphasized.

While U.S. industry is making incremental progress in using smart manufacturing, the infrastructure needed to deliver the full potential of this knowledge-based manufacturing environment has yet to be developed, according to the report. This infrastructure will enable customers to tell flexible factories of the future what products they want made, reduce time-to-market, drive greater exports due to lower production costs, minimize energy use and materials while maximizing environmental sustainability, and create opportunities for increasingly skilled workers.

The SMLC and the National Center for Manufacturing Sciences (NCMS) have formed a working partnership and to build a National Smart Manufacturing Ecosystem, It is an iPhone-like "App Store" for industrial modeling and simulation applications and their rapid application. NCMS is also providing their Predictive Innovation Center (PIC)

strategy to link nationally to other centers that involve modeling and simulation applications in manufacturing and their national capacity for outreach to small and medium enterprises.

"There are nearly 300,000 small and medium sized manufacturers in the U.S. who could be using advanced manufacturing but have found barriers to adoption," said Rick Jarman, NCMS President & CEO. "Our national PIC strategy and our collaboration with SMLC will make these tools accessible and affordable to manufacturers of all sizes."

Along with representatives from 50 leading manufacturers, technology suppliers, universities, and other organizations, Rockwell Automation, UCLA and the University of Texas – Austin organized a workshop last September that defined the roadmap and action plan for implementation of smart manufacturing. The report prioritizes four areas that need to be developed:

1. Industrial community modeling and simulation platforms for smart manufacturing
2. Affordable industrial data collection and management systems
3. Enterprise-wide integration: business systems, manufacturing plants, and suppliers
4. Education and job training skills needed for smart manufacturing design, operation and maintenance

"We want to clearly emphasize that no single company or industry segment can achieve this transformation alone and time is of the essence," said SMLC co-founder Tom Edgar, a chemical engineering professor with UT-Austin.

A very similar "Factories of the Future" public-private partnership program funded with 1.2 billion euros in the European Union 2009 economic stimulus package further validates the importance and urgency of establishing this program. Also, government support for new factories with the latest "smart manufacturing" technologies is accelerating in emerging economies.

Smart manufacturing will provide new ways to extend the essential productivity gains that have kept many U.S. manufacturers globally competitive during the past decade. In addition to cost and time savings, it can optimize energy use, improve carbon footprints, and promote environmental sustainability. Further benefits include reduced plant maintenance costs and improved product, personnel and plant safety. Potential improvements in supply chain interaction will also dramatically reduce inventories, increase product customization, and enhance product availability.

For the full report and more information, view the website <https://smart-process-manufacturing.ucla.edu/>

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