

Dr. Peterson

Opening Remarks: U.S. Manufacturing Competitiveness Initiative: Dialog on Next Generation Supply Chain Networks and Logistics

2:30 p.m. Tuesday, Feb. 28, 2012, Georgia Tech Hotel

- Welcome to Georgia Tech. We believe manufacturing is the cornerstone of America's independence and economic prosperity, and the role you play in supply chain is critical to our nation's success. We are honored to host, along with the Council on Competitiveness, this dialogue on next generation supply networks and logistics.
- Alexander Hamilton said, "Not only the wealth, but the independence and security of a country, appear to be materially connected with the prosperity of manufacturers." That statement is perhaps even more relevant today than when he made it more than 200 years ago.
- Last week Brookings released a paper "Why Does Manufacturing Matter? Which Manufacturing Matters? A Policy Framework." The authors (*Susan Helper, Timothy Krueger and Howard Wial*) noted that "Manufacturing matters to the United States because it provides high-wage jobs, commercial innovation (the nation's largest source), a key to trade deficit reduction, and a disproportionately large contribution to environmental sustainability." Their research revealed that the U.S. lost 41 percent of its manufacturing jobs between June 1979 at the peak of manufacturing employment, and the low point in December 2009.
- So the big question is how do we get back to "made in America?" The answer is that the same spirit of innovation and collaboration that once gave us preeminence in manufacturing can help us regain our competitiveness, thereby creating jobs, increasing exports and serving as a catalyst for a healthy economy.
- Key to America's competitiveness is our ability to move new ideas and innovations quickly from the lab to the manufacturing floor. A big factor in our success will be how well we do supply chain and logistics, and you will be talking about that over the next two days.
- We also need close partnerships between universities and the public and private

sectors, including manufacturers of all sizes. Industry needs to benefit from the innovations being discovered at research universities like Georgia Tech, and universities need to work on industry's toughest problems.

- Georgia Tech is developing technological innovation across many domains, such as telecommunications, microelectronics, biotech, energy, and robotics, that will drive new products and future U.S. manufacturing opportunities.
- Tech is also very successful in developing process and systems innovation in a number of areas.
 - -in manufacturing processes through our Manufacturing Research Center
 - -in global supply chain design and management through our Supply Chain & Logistics Institute
 - -in transportation and logistics infrastructure and information systems through our national University Transportation Center; and
 - in technology transfer and performance improvement services to Georgia manufacturers through our Economic Innovation Institute, which operates the Manufacturing Extension Partnership program for Georgia.
- Last summer President Obama outlined an Advanced Manufacturing Partnership, or AMP, a national effort to bring together industry, universities and the federal government to develop ways to create jobs and to help spark a manufacturing renaissance in the United States. Georgia Tech was selected as one of six universities nationwide to participate on the steering committee, and since then numerous other universities have joined in. By working together we can help U.S. manufacturers improve cost, quality and speed of production in order to be globally competitive.
- In April, the AMP Steering Committee will make its recommendations to the President's Council of Advisors on Science and Technology, or PCAST. One thing that AMP will recommend is that we need to improve the image of manufacturing.
- Last week the Washington Post ran an article about U.S. manufacturing seeing a shortage of skilled factory workers, largely due to automation transforming factories

and altering the skills needed to operate and maintain equipment, and changing demographics. While baby boomers are retiring, many in the new generation are avoiding the manufacturing sector because of a perceived volatility and stigma of factory work.

- Georgia Tech is working with others in AMP to help solve the problems outlined in the article, such as the image of manufacturing, and linking job openings with training programs at technical/community colleges.
- Georgia Tech is exposing students to advanced manufacturing through the H. Milton Stewart School of Industrial and Systems Engineering. ISyE leads the way in advanced manufacturing research and development and in enabling supply chain and logistics engineering at Tech. ISyE faculty specialize in many related disciplines, including computer-integrated systems, controls for flexible automation, manufacturing systems design, analysis and simulation, lean manufacturing strategies, and performance measurements. Tech is working to prepare the highly educated workforce needed for new companies, as well as supporting existing industry.
- We're not just waiting until students are in college as we work to inspire the next generation of manufacturers. Last fall, Tech was awarded a contract from the U.S. Defense Advanced Research Projects Agency, or DARPA, to provide manufacturing education programs to high school students. Tech is providing prize-based educational challenges for the high school students, encouraging them to use the latest technology to design and build items such as wind-turbine blades, mobile air and ground robots and electric car bodies. We're using the latest technologies to attract a new generation into Science, Technology, Engineering, and Mathematics, or STEM fields, including 3-D printers and additive manufacturing. Students will be able to connect from social networking sites and form teams to showcase their work. We want students and others to see what we see: excitement, innovation, and the tremendous potential for the future in U.S. manufacturing. Thank you.

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Closing Remarks: U.S. Manufacturing Competitiveness Initiative: Dialog on Next Generation Supply Chain Networks and Logistics

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- Thank you Chris (Gaffney, Dr. VP, Coca-Cola Refreshments). We are fortunate to partner with Coca-Cola in so many areas, and are particularly grateful for the gift last fall of \$1 million in robotics equipment for the College of Computing's Robotics and Intelligent Machines Center. The new lab will allow faculty and students to study the use of robotics in supply chain and fleet management, developing commercial applications in manufacturing to strengthen our economy and create jobs. It is yet another powerful example of collaboration between education and industry.
- I would like this opportunity to thank our colleagues at the Council on Competitiveness for their work in the U.S. Manufacturing Competitiveness Initiative, and for their partnership in putting this conference together. I would also like to thank Georgia Tech's School of ISyE for their role in the Dialogue.
- In the Dialogue over the past two days you've covered everything from the future of manufacturing to the role of transportation and global gateways. You've examined challenges and explored solutions. I know that our friends from the Council on Competitiveness join us in thanking you for your engagement in this event, as well as for your what you do every day in your jobs to strengthen manufacturing competitiveness in the U.S.
- Manufacturing is a high priority for Georgia Tech, and we are interested in working with you to enhance this critical industry.
- For a reminder of just how critical manufacturing is to this country, I would like to share a couple of facts from the recently released "National Strategic Plan for Advanced Manufacturing" from the National Science and Technology Council.
- U.S. manufacturers produced about \$1.7 trillion of goods in 2010, or 11.7 percent of the U.S. gross domestic product.

- They employed 11.5 million Americans in jobs that paid on average 21 percent more than average private-sector service industries.
- Manufacturing has a larger multiplier effect than any other major economic activity. A dollar spent in manufacturing drives an additional \$1.35 in economic activity.
- And, manufacturing is the largest contributor of U.S. exports.
- To strengthen our economy, we need to strengthen manufacturing. And doing so requires that we have the necessary supply chain infrastructure and processes in place.
- We look forward to ongoing collaboration as together we develop the next generation supply networks and logistics solutions that America needs for economic prosperity today, and in the future.
- Thank you.