Dr. Peterson
AMP 2.0 Workshop
Monday, Feb. 3, 2014, Georgia Tech Global Learning Center

Morning Introduction

Welcome to this Advanced Manufacturing Partnership regional meeting. Georgia Tech is honored to be able to host the first of several regional AMP meetings that will be held throughout the U.S. as part of AMP 2.0. We had the honor of hosting the first regional meeting for the initial phase of AMP in October 2011. How many of you participated in that meeting? Thank you. We're glad you're back.

I would like to give a special welcome to several of our guests today. Rolf Butters and Mike Molnar are here from the Advanced Manufacturing National Program Office. Mike will give us an overview in the next few minutes. Mark Lytle with the Board of Regents is here. We welcome Hans Ulz from the City of Atlanta, and Tom Croteau from the Georgia Department of Economic Development.

We are fortunate to have Eric Spiegel, CEO of Siemens USA, will be speaking at noon. Also from Siemens is Helmuth Ludwig. Carrie Houtman from Dow Chemical Company is here.

Joining us today are representatives from Innovation Centers headquartered here in Tech Square, including ThyssenKrupp Elevator and NCR. We have representatives from a number of universities, including the University of Akron, the University of Georgia, Clemson University, the University of Florida, Georgia Southern University, Rensselaer Polytechnic Institute, and MIT. We also have representatives from several Georgia technical colleges.

The Southeast is becoming the center of new manufacturing in the U.S. Many aerospace, automotive, bio-medical and power generation original equipment

manufacturers, or OEMs, and their suppliers are relocating to the Southeastern U.S. where they are rapidly expanding.

This manufacturing renaissance represents an historic opportunity particularly for small-and medium-sized enterprises, or SMEs. There are more than 9,100 manufacturing SMEs in Georgia, and tens of thousands of SMEs in the Southeast. They are a major contributor to our manufacturing output and prosperity. However, these SMEs typically have limited financial resources, compared to large multi-corporations, to purchase and install the latest technological advances, or invest in workforce development. A major objective of this AMP 2.0 regional outreach meeting is to provide a forum for SMEs to share challenges and best practices.

New technologies will dramatically change the landscape of manufacturing. With the advent of new technologies and advanced materials, current paradigms and business models will likely be disrupted. For example, additive manufacturing, or 3D printing, will move product design and manufacturing much closer to the point of use or consumption. The supply chain we know today will be very different in several years. Another example is the Internet of Things, or IoT. Manufacturing is in the process of being radically transformed by the introduction of agile, intelligent and seamless processes, systems or other smart tools, collectively referred to around the world as IoT. Siemens and Ford have recently formed a partnership to explore the future of IoT manufacturing.

We are capitalizing on the robust manufacturing ecosystem assets in Georgia to build an infrastructure to support SMEs. The Technical College System of Georgia is a big asset, and Georgia is also home to some of the top universities in the nation.
The Governor's High Demand Career Initiative announced by Governor Deal is bringing together the heads of Economic Development, the University System of Georgia, technical colleges and schools, along with key leaders in a number of private-sector industries. Employers can share what they expect their future needs will be,

giving institutions of education the chance to get ahead of the curve in preparing tomorrow's workforce.

The state's internationally recognized QuickStart program offers free workforce development and training to companies expanding or locating new facilities in Georgia. The Georgia Department of Economic Development's Centers of Innovation help connect and facilitate collaboration with other companies, state organizations, agencies and universities, and provide access to researchers and resources. The Center of Innovation for Manufacturing, for example, is housed in the Georgia Tech Manufacturing Research Institute.

The Georgia Manufacturing Extension Partnership is among the best MEPs in the nation. Last year, GaMEP worked with 1,770 manufacturers, resulting in $36 million in reduced operating costs, $191 million in increased sales, and 950 jobs created or retained.

At Georgia Tech we're in the midst of, and enabling, a true manufacturing innovation ecosystem. The Georgia Tech Manufacturing Institute and GaMEP are providing leading edge research and education coupled with support to manufacturers across the state. We have partnership programs with business and technical colleges to ensure an educated workforce. Georgia Tech will soon build a 25,000 square-foot pilot manufacturing facility to assist companies of all sizes, especially new startups with an advanced manufacturing focus. Georgia Tech will soon develop an integrated physical/cyber manufacturing demonstration facility to help SMEs in the region and the entire nation. This facility will include state-of-the-art equipment and software configurations including advanced composite materials, precision machining, sustainable design and manufacturing, additive manufacturing, and factory information systems, to name a few. The facility can be used as a test bed of new technologies, a training ground of a skilled workforce required by emerging technologies, and as a scale-up and pilot plant.

We are committed to doing our part to help ensure that the Southeast is at the forefront of the emerging U.S. manufacturing renaissance. Today, you are helping with that effort as well, as you share your ideas, needs and experiences. We will collect your feedback to include as part of research for AMP 2.0 recommendations.
Thank you for investing your time with us today. We value your input, and look forward to a very productive meeting. Now, Mark Molnar will give us an overview.

Intro of Eric Spiegel

Eric Spiegel is President and CEO of Siemens USA. I have the honor of serving with him on the AMP 2.0 steering committee, which includes leading industry executives and presidents of major universities and technical colleges.

Siemens provides solutions for healthcare, the growing demand of cities and the nation's infrastructure needs, cleaner sources of energy production, and industrial productivity. The corporation has $19.2 billion in revenue, $6 billion in exports and approximately 53,000 employees in the U.S. Siemens has more than 130 manufacturing sites across the U.S. and is represented in all 50 states.

Eric joined Siemens four years ago after 25 years of global consulting experience with complex organizations in the oil and gas, power, chemicals, water, industrial and automotive fields.

An expert on the global energy industry, Eric co-authored the 2009 book *Energy Shift: Game-changing Options for Fueling the Future*, which has been translated into Arabic, Spanish, Korean and Japanese.

He holds an MBA from the Tuck School of Business at Dartmouth College where he was an Edward Tuck Scholar and received his A.B. with Honors in Economics from

Harvard University.

Please join me in welcoming Eric Spiegel.