You are cordially invited to a Working Breakfast:

**Keeping Manufacturing Competitive:**
*Industry-University Collaboration in Germany and the U.S.*

**Wednesday, November 7, 2012, 8-10 a.m.**

with

**Dr. Robert E. Geer**
Vice President for Academic Affairs and Chief Academic Officer
Professor of NanoScience
College of Nanoscale Science and Engineering (CNSE), University at Albany, SUNY

**Dr. Kaushik Kumar**
Plasma Etch Process Engineering Manager, Member of Technical Staff TEL
Technology Center, America, LLC

**Dr. Marc Malandro**
Associate Vice Chancellor for Technology Management and Commercialization
University of Pittsburgh

**Dr. Hans-Jürgen Pfisterer**
Professor of Electrical Engineering and Computer Science
Osnabrück University of Applied Sciences

moderated by

**Dr. Bernd Reissert**
President
Berlin School of Economics and Law

at the

German House, 871 United Nations Plaza (First Ave. at 49th Street), New York, NY

Very limited seating, registration required.
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Although U.S. economic recovery remains modest, some cause for optimism can be found in the “manufacturing comeback” that has been bringing jobs back to regions where the shift to services had long been assumed. Policymakers interested in encouraging this trend often refer to Germany, where export-oriented manufacturing has remained a motor of economic growth in spite of high labor costs and strict labor regulations. Meanwhile, the turnaround of certain “Rust Belt” regions in the U.S. has been attributed in large part to innovative collaborations between universities and companies.

Parallels with Germany, where innovation capacity is often attributed to firms’ embeddedness in a highly decentralized system of application-oriented universities and research institutions, often begin with the benefits this provides for R&D. However, innovative German manufacturers also
depend on universities to cultivate a highly skilled and adaptable workforce. Persistent unemployment in U.S. regions where employers are unable to fill vacancies due to skills gaps underscore the importance of workforce development. Notable exceptions to this trend (e.g. Albany, Pittsburgh) suggest that robust economic turnarounds can be supported by industry-university collaborations in the U.S. and Germany.

This working breakfast will feature panelists from U.S. and German universities that play a major economic role in their respective regions by collaborating with local industry and attracting new investment. They will be joined by a representative from Tokyo Electron (TEL), which established its first R&D center outside of Japan in 2003 on the campus of the Center for Nanoscale Science and Engineering (CNSE) in Albany. Best practices from both sides of the Atlantic will be explored and compared by panelists and invited guests from academic, business, and policy circles.

Speaker Biographies:

Dr. Robert E. Geer As CNSE Vice President for Academic Affairs and Chief Academic Officer, Professor Geer leads the development and implementation of the College’s academic degree programs. He is a founding faculty member of CNSE and leads various research projects in nanoelectronics, nanomaterials, and nano-metrology. Currently Professor Geer leads the Electrical Interconnect Theme in the SRC/DARPA Interconnect Focus Center. Current areas of interest include design, development and fabrication of novel 3D integrated circuits for high performance nanoelectronics, development and reliability of resistive RAM, development of graphene for next-generation interconnects and thermoelectrics, Si-based nanowire materials for energy applications and integrated circuits, and development of nanoscale metrology tools for measurement and characterization of nanodevice structures. Professor Geer also directs R&D programs in nanoparticle-based planarization processing for computer-chip manufacturing. His research has been supported by: NSF, IBM, AMD, ONR, the New York State Office of Academic Research and Technology, International Sematech, AFOSR, DARPA, and SRC. Professor Geer has presented over 75 papers at technical conferences and has published more than 100 articles, book chapters, or proceedings on nanoscale materials, devices, and nanoscale characterization.

Dr. Kaushik Kumar received his PhD in physics in 2002 from the University of Albany-SUNY, under the advisement of Prof. Alain Kaloyeros. This was a precursor to the formation of CNSE. Dr. Kumar joined IBM Microelectronics as an intern in 1999, and became a process engineer in Plasma Etch at IBM microelectronics in 2002. In 2007, Kumar became the manager for a SOI-based Plasma Etch Development team at IBM microelectronics. He left IBM in 2009 to join TEL Technology Center, America, LLC to enhance his career in Plasma Etch Technology. Dr. Kumar currently holds a dual position as a Member of Technical Staff and as the Manager for Plasma Research and Development in Albany, NY. Dr. Kumar has over 40 issued patents and over 40 publications in reputed journals and conferences. He serves in the Industrial Advisory Board for Hudson Valley Community College's NEATEC program to develop a pool of skilled technician in the Hudson Valley for high-end technology industry. Dr. Kumar also serves on the advisory committee for the Interconnects sub-group of the ITRS.
Dr. Marc Malandro serves as the Associate Vice Chancellor for Technology Management and Commercialization and oversees the technology commercialization and licensing activities of both the Office of Technology Management and the Office of Enterprise Development, Health Sciences at the University of Pittsburgh. He is also an Adjunct Assistant Professor in the departments of Medicine and Bioengineering and serves on the Board of Directors of Pennsylvania Bio and the Pittsburgh Technology Council. Under Dr. Malandro’s leadership, the Office of Technology Management has filed over 690 new U.S. patent applications, entered into over 530 license agreements and formed 37 companies based on university technologies since 2005. Dr. Malandro is also the inventor on over 30 issued patents or pending patent applications.

Prior to joining the University of Pittsburgh, Dr. Malandro co-founded Sagres Discovery, a systems biology company focused on the understanding of the molecular basis of cancer, where he served as Vice President of Technology and Strategic Alliances and was involved in all aspects of intellectual property, licensing and alliance management.

Dr.-Ing. Hans-Jürgen Pfisterer is Professor of Electrical Engineering and Computer Science at Osnabrück University of Applied Sciences, where his teaching and research focus on improving energy efficiency of power electronics, electrical drives and energy storage systems. In 2012, his research on hand-held power tools was recognized with the Konrad-Albert-Schäfer prize.

Before joining the faculty of Osnabrück UAS in 2009, Dr. Pfisterer worked in R&D at HILTI and at ebm-Papst. In 2008, he founded Drive-Consult, an engineering consultancy commissioned by Siemens for electronics research. When he joined the faculty of Osnabrück UAS in 2009, Dr. Pfisterer integrated Drive-Consult into the Science-to-Business (S2B) technology transfer company that operates under the aegis of Osnabrück UAS. In 2011, the Competence Center for Electronics and Drive Technology (KEA) was founded as a successor to Drive-Consult. Its 15 engineers focus on the research and skill development needs of special machine manufacturers in the region, with a particular emphasis on SME manufacturers that need to keep pace with increasingly demanding environmental regulations and consumer demand for green technology.

Moderator Biography:

Dr. Bernd Reissert has served as President of the Berlin School of Economics and Law and as Chair of the UAS7 (Seven German Universities of Applied Sciences) consortium since 2010. Dr. Reissert previously served as the Founding Rector of the University of Applied Labour Studies of the German Federal Employment Agency, as a Konrad Adenauer Visiting Professor at the BMW Center for German and European Studies at Georgetown University, and as Professor of political science at HTW Berlin University of Applied Sciences.

Dr. Reissert has also served as a consultant to the European Commission and OECD on projects on regional economic development. His research on labor market dynamics and skilled workforce development was a reference point during the reform process of the German unemployment benefit system (Hartz IV), to which he contributed as a scientific adviser.