

Memorandum of Understanding

Among:

**The United States Government as represented by The National Economic Council/Office of Manufacturing Policy; Office of Science and Technology Policy;
The Department Of Commerce; The National Aeronautics and Space Administration; The National Science Foundation; and the Department of Energy with; Deere & Company; General Electric Company; Lockheed Martin Corporation; The Procter & Gamble Company, Purdue University and the Ohio Board of Regents.**

Authorities

The U.S. Government agencies participating in this Memorandum of Understanding (MOU) will be acting on their own authorities, as noted in the United States Code. These authorizations for the agencies, together with the internal policies and procedures of each, define the authority of these agencies to enter into this MOU and to facilitate the dissemination of certain technologies to improve the competitiveness of small and medium sized enterprises (SMEs).

Background:

Recent advances in computer technology have made it possible to significantly reduce the length of time for a new product to be produced at a commercial scale. Traditionally, a number of physical models were built and tested prior to commercial production; however with computer-based modeling and simulation a product can be quickly tested numerous times before a physical model is needed. While this technology is currently being employed by larger companies, there appear to be opportunities to make the technology available to first- and second-tier suppliers, including small- and medium-sized enterprises (SMEs).

Purpose:

The Obama Administration is committed to revitalizing our nation's manufacturing sector through, among other things, improving its competitiveness in the global economy. Toward that end, the President has designated an Assistant to the President for Manufacturing Policy and assigned that office the task of providing a greater level of coordination and focus on the Administration's many programs that support manufacturing.

This MOU shall evidence the agreement of the United States Government through its designated Departments and Agencies (National Economic Council (NEC)/Office of Manufacturing Policy; the Office of Science and Technology Policy (OSTP); the Department of Commerce, (Economic

Development Administration (EDA); and the National Institute of Standards and Technology (NIST); the National Aeronautics and Space Administration (NASA); the National Science Foundation (NSF); the Department of Energy (DOE)(collectively, USG), together with Deere & Company; General Electric Company; Lockheed Martin Corporation; Procter & Gamble Company; Purdue University and the Ohio Board of Regents (the Parties) to work together on a project (Project) to facilitate the dissemination of certain technologies to improve the competitiveness of SMEs.

The use of computer-based modeling and simulation (M&S) has the potential to play an important role in helping America's SMEs achieve global competitiveness and create new employment opportunities.

In addition to the Parties to this MOU, the Project would be focused on large companies who are currently using M&S technology in their own product development, have significant networks of domestic SME suppliers, and believe that making this technology available to those suppliers could enhance the competitiveness of both the suppliers and the larger companies. This Project will also support maintaining America's lead in the development of the hardware and related software application for modeling and simulation.

The large companies would contribute time and resources, as well as agree to work both with each other and their suppliers. The Parties would facilitate this cooperation and in certain cases may consider providing resources to support the effort.

Shared Goals:

- Enhancing the competitiveness of SME manufacturers through the utilization of technology, specifically computer-based modeling and simulation.
- Maintaining a technological edge in M&S through adoption of state-of-the-art research advances.
- Strengthening the capacity of SMEs to create, commercialize, and manage new innovation and new products to improve economic competitiveness.

The Parties contemplate that they will plan and implement projects of mutual interest through one or more mechanisms which support the overall goals of advancing American manufacturing's productivity through the use of computer-based modeling and simulation.

Designated Points of Contact:

Each Party has appointed a primary point-of-contact and liaison responsible for the management and development of the relationship between the parties. These liaisons are listed below:

USG:

NEC/OMP: Ron Bloom

OSTP: Aneesh Chopra

DOC/EDA: A/S John Fernandez

DOC/NIST: U/S Patrick Gallagher

DOE: U/S Steven Koonin

NASA: Dr. Robert Braun

NSF: Director Subra Suresh

PRIVATE PARTNERS:

Deere & Company: Vanessa Stiffler-Claus

General Electric Company: Christine Furstoss

Lockheed Martin Corporation: Dr. Ray O Johnson

The Procter & Gamble Company: Bruce Brown

Purdue University: Dr. David R. McKinnis

Ohio Board of Regents: Eric D. Fingerhut

Effective Date, Duration, Amendments, and Termination

This MOU is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of the Parties. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

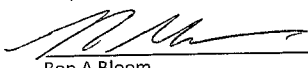
The Parties agree that this MOU is not in any way an obligation of funds, nor does it constitute a legally binding commitment by any Party or create any rights for any Party regarding any project. Nothing in this MOU shall be interpreted as limiting, superseding, or otherwise affecting a Party from conducting normal operations or making decisions in carrying out its statutory or regulatory duties. This MOU does not limit or restrict the Parties from participating in similar activities or arrangements with other entities.

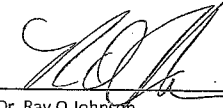
The Parties will, in all respects, continue to maintain their own separate and unique missions, mandates and statutory authorities as well as their own budgetary accountability. Each Party shall accept full and primary responsibility for any and all expenses incurred by that Party relating to this MOU. No Party will be responsible for any expense incurred by the other Parties unless specifically agreed to in writing.

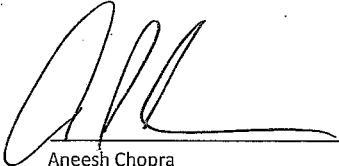
Activities under this MOU shall commence upon the date of the last signature of all the Parties and are expected to continue for 5 years from that date. The Parties may decide to extend this period and/or add additional federal entities to this MOU. In addition, this MOU may be modified if all the Parties agree. Any party may terminate this MOU at any time, but will endeavor to provide 30 days written notice to the other Parties.

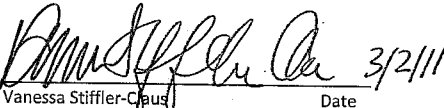
Resolution of Disagreements

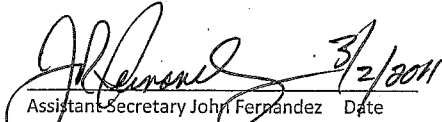
Should disagreement arise under this MOU, or amendments and/or revisions thereto, that cannot be resolved at the division director level, the area(s) of disagreement shall be stated in writing by each Party and presented to the other Party at the assistant director or equivalent level for consideration.

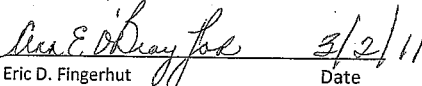

Ron A Bloom Date 03-02-11
Assistant to the President for Manufacturing Policy
National Economic Council, Manufacturing Policy

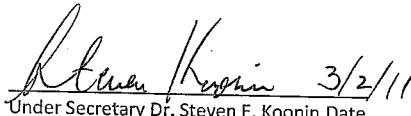

Dr. Ray O Johnson Date 3/2/11
Senior Vice President and Chief Technology Officer
Lockheed Martin Corporation


Aneesh Chopra Date 3/2/11
Assistant to the President, Associate Director
Office of Science and Technology Policy

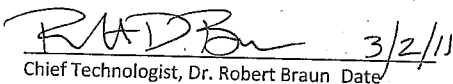

Vanessa Stiffler-Claus Date 3/2/11
Director of International Affairs
Deere & Company

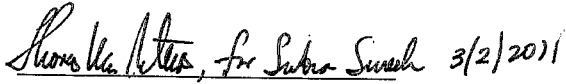

Assistant Secretary John Fernandez Date 3/2/2011
Economic Development Administration
Department of Commerce;



Eric D. Fingerhut Date 3/2/11
Chancellor
Ohio Board of Regents

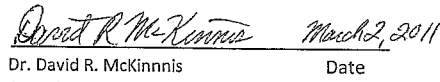

Under Secretary Dr. Steven E. Koonin Date 3/2/11
Department of Energy

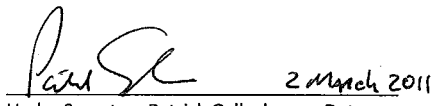

Christine Furstoss Date 02 March 2011
Global Technology Director for Advanced Manufacturing
General Electric Company

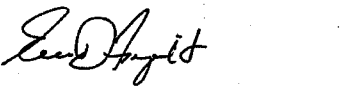

Chief Technologist, Dr. Robert Braun Date 3/2/11
National Aeronautics and Space Administration


Director Dr. Subra Suresh Date 3/2/2011
National Science Foundation


Bruce Brown Date 3/2/11
Chief Technology Officer
The Procter & Gamble Company


Dr. David R. McKinnis Date March 2, 2011
Associate Vice Provost for Engagement
Purdue University


Under Secretary Patrick Gallagher Date 2 March 2011
National Institute for Standards and Technology
Department of Commerce


Eric D. Fingerhut Date
Chancellor
Ohio Board of Regents