



**Compete.**

Council on  
Competitiveness

# Making Impact

Annual Report 2013-2014



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## From Our Leaders

We are pleased to share with you the Council on Competitiveness' 2013-2014 Annual Report, *Making Impact*. On the following pages, you will find highlights and accomplishments from the past year, and important information on the Council's agenda and events for 2014.

At its core, the Council is the sum of its members—CEOs, university and college presidents, labor leaders and national laboratory directors—who dedicate their time, resources and thought leadership to enhancing our mission to grow our economy and create a more prosperous future for America. The work we do at the Council gets to the heart of the most critical issues affecting all Americans, while framing the national and global conversation around the necessary conditions to create a more competitive nation.

In 2013, the Council broke new ground with its **American Energy and Manufacturing Competitiveness (AEMC) Partnership** with the Department of Energy, designing innovative public-private partnership (PPP) models to enhance the nation's energy productivity and manufacturing capacity. Built on the foundation of four progressive dialogues across the country and cutting-edge research on PPP models globally, the first year of this three-year initiative set the stage for the next phase of the project, which will establish new models of collaboration across the public and private sectors.

The AEMC Partnership culminated in 2013 with the inaugural AEMC Summit, the first in an annual series of AEMC Summits that brings together the nation's best minds and strongest leaders to build relationships, celebrate success, and set an agenda for concrete policy actions to strengthen America's manufacturing sector and catalyze new economic opportunity through the development and deploy-

ment of next-generation energy technologies. Coupled with the ongoing research and implementation of the Council's manufacturing work through its **U.S. Manufacturing Competitiveness Initiative (USMCI)**, the stage is set for the launch in 2014 of the **U.S. Energy & Manufacturing Competitiveness Partnership (EMCP)** that will explore the competitiveness opportunity at the nexus of energy and manufacturing.

2013 also initiated the nationwide conversation about engineering leadership and the role this important profession plays in America's long-term growth and competitiveness. **The National Engineering Forum (NEF)**, a partnership between the Council and Lockheed Martin is creating a national movement through regional dialogues that bring together important stakeholders who discuss and develop key solutions facing the engineering challenges in America. A series of regional dialogues in 2013 and 2014 will set the stage for a cornerstone, national event in 2015 in Washington, D.C.

The Council continued its leadership and member engagement in the critically important **Technology Leadership and Strategy Initiative (TLSI)**, which reached a significant milestone in 2013, having held its 10th dialogue. In the five years since the TLSI began, it has ignited a national conversation; identified grand challenges—and opportunities; and established a new benchmark for collaboration between the public and private sectors to optimize America's research, talent and technology ecosystem while making the business case for long-term strategic investments in technology and innovation. And the Council also continues to employ the leadership of its High Performance Computing Advisory **Committee (HPCAC)**, leveraging and integrating these efforts across the Council's various initiatives.



**Samuel R. Allen**

Chairman, Council on Competitiveness  
Chairman and CEO, Deere & Company



**Deborah L. Wince-Smith**

President & CEO  
Council on Competitiveness

Under the leadership of our Executive Committee, the Council's **2013 National Competitiveness Forum** brought together some of America's top CEOs, university and labor leaders, and key policymakers from the administration and Congress to set an action agenda for the nation and bring to the forefront key competitiveness opportunities and challenges. The release of *The Clarion Call for Competitiveness: A Look Back and a Path Forward* served as a rallying point for the conversation and a roadmap for policymakers.

Recognizing that the competitiveness agenda does not stop at the borders, the Council continued its engagement globally, working with competitiveness councils from around the world to share best practices and identify the next generation of competitiveness metrics. Bilaterally, the Council co-hosted the **3rd U.S.-Brazil Innovation Summit**, a coming together of top leaders from the Western Hemisphere's two largest economies to strengthen and grow this important partnership, so as to create specific bi-national and global projects to advance innovation-based competitiveness. 2013 also saw the launch of the **U.S.-Brazil Bi-National Innovation Platform**, followed by a meeting of the inau-

gural Steering Committee. A second Bi-National Innovation Steering Committee Meeting took place earlier this year.

2014 marks the ten year anniversary of the Council's landmark **National Innovation Initiative (NII)** which continues to shape the dialogue on the role innovation plays in driving competitiveness. The three pillars of innovation identified then—talent, investment and infrastructure—remain just as critical and relevant to the underpinnings of American's innovation capacity as they did a decade ago. In that time, the NII has shaped the work of the Council from its groundbreaking **Energy, Security, Innovation & Sustainability (ESIS) Initiative** to the USMCI and the soon to launch EMCP.

In the year ahead, the Council will continue to lead on those issues critical to our nation's competitiveness, including the building of a coalition for action to address infrastructure revitalization, one of the key innovation pillars. We will engage our members, look to form vital partnerships here in the U.S. and abroad, seek opportunities to put policy into practice, and, most importantly, be the "go to" voice to chart a path towards long term economic growth and prosperity for all Americans.

# National Competitiveness Dinner



*Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness, kicks off the 2013 National Competitiveness Dinner at The Library of Congress in the Thomas Jefferson Building's Great Hall, October 29th, 2013.*





The NCF kicked off on October 29 with the annual dinner at the Library of Congress, during which the Council honored two veteran members of Congress for their distinguished careers and leadership on competitiveness issues. U.S. Senator Michael Crapo (R-ID) is a member of a bipartisan group of senators that has dedicated years to crafting a long-term, strategic budget to address entitlement growth and tax reform to enable investments for future growth.

U.S. Congressman Steny Hoyer (D-MD) has long championed policies to enhance manufacturing competitiveness, which spur investment and research opportunities for the United States.

**Top Left:** *The Honorable Mike Crapo, U.S. Senate (Idaho).*

**Top Right:** *Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin.*

**Center Left:** *Dr. Michael M. Crow, President, Arizona State University, and University Vice Chair, Council on Competitiveness; Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness; the Honorable Steny Hoyer, U.S. House of Representatives (MD-5); and the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness.*

**Center Right:** *Dr. Randy Woodson, Chancellor, North Carolina State University; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; and Mr. C. Michael Cassidy, President & CEO, Georgia Research Alliance.*



During the 2013 NCF dinner, Dr. Michael M. Crow, President, Arizona State University, was announced as the Council's newest University Vice Chair. He succeeds the Honorable Shirley Ann Jackson, President, Rensselaer Polytechnic Institute, who recently stepped down after five years of exemplary service.



**Top Left:** Dr. Luis M. Proenza, President, The University of Akron.

**Center:** The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; the Honorable Randall M. Hultgren, U.S. House of Representatives, (IL-14); the Honorable Christopher Coons, U.S. Senate (Delaware); and Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness.

**Bottom:** The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness; the Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy; Dr. Walt Kirchner, Institutional Liaison Manager, Argonne National Laboratory and former Chief Technologist in Residence, Council on Competitiveness; and the Honorable William Foster, U.S. House of Representatives, (IL-11).

# National Competitiveness Forum

The Council on Competitiveness hosted its 2nd annual National Competitiveness Forum (NCF) at the Newseum in Washington, D.C. on October 29-30. This seminal event engaged senior leadership from industry, government, labor, academia and the national laboratories to address the current state of U.S. competitiveness, and to explore pressing and emerging priorities at the heart of America's economic ecosystem.

Focused on finding common ground on critical competitiveness issues, the NCF arrived at a pivotal time—just days after a 16-day government shut-down emblematic of a government defined by confrontation rather than collaboration.

The 2013 NCF was a commanding platform for Council members and other thought leaders to engage in conversation, elaborate on ideas and set the competitiveness action agenda for the nation. They analyzed and addressed America's competitiveness capacity and at the end of the day coalesced around a strong and impactful voice of influence.

The NCF featured dynamic and interactive discussions moderated by top Washington journalists, including a series of one-on-one CEO dialogues moderated by Bloomberg's Al Hunt. CEOs included Frederick W. Smith, Chairman & CEO, FedEx Corporation; Eric Spiegel, President & CEO, Siemens Corporation; and Jeff Fettig, Chairman & CEO, Whirlpool Corporation.

The NCF also brought together panels on U.S. workforce training, higher education, fiscal policy and strategies for accelerating the “start-up to scale-up” process in the U.S. manufacturing sector. The keynote was given by U.S. Secretary of Commerce Penny Pritzker.

**SAVE THE DATE**

**2014 National Competitiveness Forum**  
September 15-16, 2014

The 2013 NCF included the release of the *Clarion Call, A Look Back and a Path Forward*—a federal policy “report card” of actions (and lack of actions) since the Council issued a clear and concise agenda to policymakers at the inaugural NCF, which included a road map to grow the American economy and included core principles and recommendations critical for the United States' long term economic growth and job creation.





**Top:** Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness; and the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness.

**Center Left:** Mr. Samuel R. Allen, Chairman & CEO, Deere & Company and Chairman, Council on Competitiveness and the Honorable Penny Pritzker, U.S. Secretary of Commerce.

**Center Right:** Dr. G.P. "Bud" Peterson, President, Georgia Institute of Technology.

**Bottom:** (standing) The Honorable G. Wayne Clough, Secretary, The Smithsonian Institution; (back) Mr. James K. Clifton, Chairman and CEO, Gallup, Inc; Mr. J. David Armstrong, Jr., President, Broward College; and Mr. Blake Moret, Senior Vice President, Control Products & Solutions, Rockwell Automation.



*“While recent economic indicators such as GDP growth may seem a cause for optimism, in many ways they represent progress despite the actions of policymakers, rather than because of them. It’s time to get serious about setting a pro-growth action agenda that addresses America’s financial challenges and invests in America’s strengths.”*

**The Honorable Deborah L. Wince-Smith**  
President & CEO, Council on Competitiveness

Sara Eisen, Anchor “Bloomberg Surveillance” interviews the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness.



**Top:** Mr. Mark A. Weinberger, Global Chairman & CEO, EY; Mr. Robert L. Reynolds, President and CEO, Putnam Investments; Mr. Paul A. Yarossi, President, HNTB Holdings Ltd.; and Mr. Nicholas T. Pinchuk, Chairman & CEO, Snap-on Inc.

**Center:** The Honorable Mitch E. Daniels, Jr., President, Purdue University.

**Bottom:** Ms. Randi Weingarten, President, American Federation of Teachers, AFL-CIO.



**Top:** Mr. Albert R. Hunt, Bloomberg News; Mr. Jeff M. Fettig, Chairman and CEO, Whirlpool Corporation.

**Center:** Mr. Frederick W. Smith, Chairman and CEO, FedEx Corporation; and Mr. Samuel R. Allen, Chairman & CEO, Deere & Company, and Chairman, Council on Competitiveness.

**Bottom:** Dr. John J. DeGioia, President, Georgetown University.



*“I want everyone who walks in—from the cleaning staff to foreign dignitaries—to know that America is open for business and that the Commerce Department is an ally for people like you who are leading our nation’s top businesses, universities and other institutions. If we work together, I know that we can have a powerful response to the [Council’s] Clarion Call for Competitiveness.”*

**The Honorable Penny Pritzker**  
 Secretary, U.S. Department of Commerce  
 National Competitiveness Forum  
 October 30, 2013

## Compete: Energy and Manufacturing

For more than a decade, the Council has defined America's innovation, energy and manufacturing agenda. The Council is proud to trace key accomplishments in manufacturing policy and innovation, including the America COMPETES Act and the recently launched National Network for Manufacturing Innovation (NNMI) hubs in Chicago, Youngstown, OH and Raleigh, NC back to its groundbreaking work.

Anchored by the Energy, Sustainability, Innovation & Security initiative (ESIS), the Council's portfolio of initiatives and impact in the energy sector has never been more influential than it is right now. Today, the Council continues to drive conversations at the federal level and is facilitating tangible outcomes in the areas of energy and manufacturing—two areas of our nation's economic and social fabric that are inextricably woven together.



*Participants of the Cyber-Enabled Manufacturing Dialogue held at Sandia National Laboratories, Sandia Research Park in Albuquerque, NM.*

## 2013 IN REVIEW

The Council remains at the cutting edge of leadership of public-private efforts to optimize the U.S. energy portfolio, and strengthen America's manufacturing capacity to drive long-term productivity and prosperity.

## U.S. Manufacturing Competitiveness Initiative

The Council's flagship U.S. Manufacturing Competitiveness Initiative (USMCI) continued to make waves around the nation in 2013. The Council's publication, *Make: An American Manufacturing Movement*, finds resonance both inside and beyond the Beltway, and many of its core recommendations are materializing.

The launch of several National Network for Manufacturing Innovation (NNMI) hubs around the country—new centers of excellence that bring together businesses, government and academia to meet grand technological challenges with the potential to unleash generations of American manufacturing innovation, jobs, and prosperity—are traced back to the Council's thought leadership and advocacy.

The Council is also proud to count among its membership, many key partners in the recently announced NNMI in Next Generation Power Electronics, hosted by North Carolina State University, and Digital Manufacturing and Design Innovation, hosted by the University of Illinois.

In 2013, the Council also continued to push the innovation envelope with its Out-of-the-Blue Dialogue Series, holding strategic conversations on:

- **Additive Manufacturing:** co-hosted by Thomas E. Mason, Director, Oak Ridge National Laboratory; Jeffrey J. Wilcox, Vice President-Engineering, Lockheed Martin; and Ed Morris, Director, National Additive Manufacturing Innovation Institute and Vice President, National Center for Defense Manufacturing and Machining, held in Oak Ridge, TN on April 18-19; and
- **Cyber-enabled Manufacturing:** hosted by Paul Hommert, Director, Sandia National Laboratories, and President, Sandia Corporation, held in Albuquerque, NM on May 29-30.



**Top:** The Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy, is shown a frisbee-flying robot made by local high school students as part of a regional engineering contest.

**Center:** Dr. Subhash Mahajan, Distinguished Professor & Special Advisor to the Chancellor, University of California, Davis; Dr. Elizabeth (Betsy) Cantwell, Senior Advisor for Mission & Economic Development, Lawrence Livermore National Laboratory; Mr. Jami Grindatto, Director of Enterprise Talent, Intel Corporation (speaking); and Dr. Gilbert V. Herrera, Director, Microsystems Science, Technology & Components, Sandia National Laboratories.

**Bottom:** The Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy; and Dr. Thomas E. Mason, Director, Oak Ridge National Laboratory.



## American Energy & Manufacturing Competitiveness Partnership

The American Energy & Manufacturing Competitiveness (AEMC) Partnership with the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) brings together a cross-section of national leaders to address the rapidly shifting national and global energy land-

scape and uncover actions that can be taken to enable America to take advantage of this distinctive time in its energy history and to bolster dramatically its energy, economic and manufacturing competitiveness over the next 20 years and beyond.

In 2013, the Council entered phase two of the AEMC Partnership, which consisted of the inaugural AEMC Summit and four supporting progressive dialogues across the country.



### The *inaugural* American Energy & Manufacturing Competitiveness Summit

December 12, 2013

Ronald Reagan International Trade Center Amphitheater

SAVE  
THE  
DATE

## 2014 American Energy & Manufacturing Competitiveness Summit

September 17, 2014

### Inaugural AEMC Summit

Held in Washington, D.C. on December 12, 2013, the AEMC Summit convened over 600 leaders from industry, academia, labor, national laboratories and government to discuss the most critical energy and manufacturing challenges and opportunities affecting U.S. prosperity, sustainability and security. It was the first in a series of annual summits aimed at bringing together the nation's best minds and strongest leaders to build relationships, celebrate success and set an agenda for concrete policy actions to strengthen America's manufacturing sector, and to catalyze new economic opportunity through the development and deployment of next-generation energy technologies.





**OPPOSITE PAGE**

**Top:** The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness, and the Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy.

**Center Left:** The Honorable Randall M. Hultgren, U.S. House of Representatives, (IL-14).

**Center Right:** The Honorable Marcia C. Kaptur, U.S. House of Representatives, (OH-9).

**Bottom Left:** The Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy; Dr. William Goldstein, Deputy Director for Science & Technology, Lawrence Livermore National Laboratory; Dr. Thomas E. Mason, Director, Oak Ridge National Laboratory; Mr. Stephen C. Nolet, Principal Engineer and Senior Director of Innovation & Technology, TPI Composites, Inc.; Dr. Jud Virden, Associate Laboratory Director, Energy and Environment Directorate, Pacific Northwest National Laboratory.

**Bottom Right:** Mr. Peter Davidson, Executive Director, Loan Program Office, U.S. Department of Energy; Dr. Eric Isaacs, Director, Argonne National Laboratory; Mr. Michael Mansuetti, President, Robert Bosch LLC; Dr. Sujeet Chand, Senior Vice President & Chief Technology Officer, Rockwell Automation; and Dr. Robert Easter, President, University of Illinois.

**THIS PAGE**

**Top:** Dr. James H. Stock, Member, Council of Economic Advisers; Ms. Amy Ericson, U.S. Country President, Alstom; Dr. Lloyd Jacobs, President, University of Toledo; Mr. Jeffrey Wilcox, Vice President of Engineering, Lockheed Martin; Ms. Carol Williams, Executive Vice President, Manufacturing & Engineering, Supply Chain and Environmental, Health & Safety Operations, The Dow Chemical Company.

**Center:** The Honorable Ernest J. Moniz, U.S. Secretary of Energy.

**Bottom:** The Honorable Gene B. Sperling, former Director, National Economic Council & Assistant to the President for Economic Policy, The White House.



*The Honorable Steny Hoyer, (MD-5) delivers the luncheon keynote at the inaugural AEMC Summit.*





**Top:** GM's Chevy Volt, seen on display at the AEMC Summit is an example of a Plug-In Hybrid vehicle which utilizes battery and manufacturing technologies developed with the support of the Department of Energy.

**Center Left:** Leaders including Amy Ericson, U.S. Country President, Alstom; the Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy; Dr. Daniel Mote, Jr., President, National Academy of Engineering; and the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness, tour the exhibit area at the inaugural AEMC Summit.

**Center Right:** Baxter is a teachable robot by Rethink Robotics, seen on display at the AEMC Summit. Baxter is designed to work alongside humans on the factory shop floor. This interactive exhibit included examples presented by John Deere and NanoMech.

**Bottom:** AEMC Summit participants view the Lockheed Martin exhibit showcasing the power and potential of investments in advanced manufacturing.

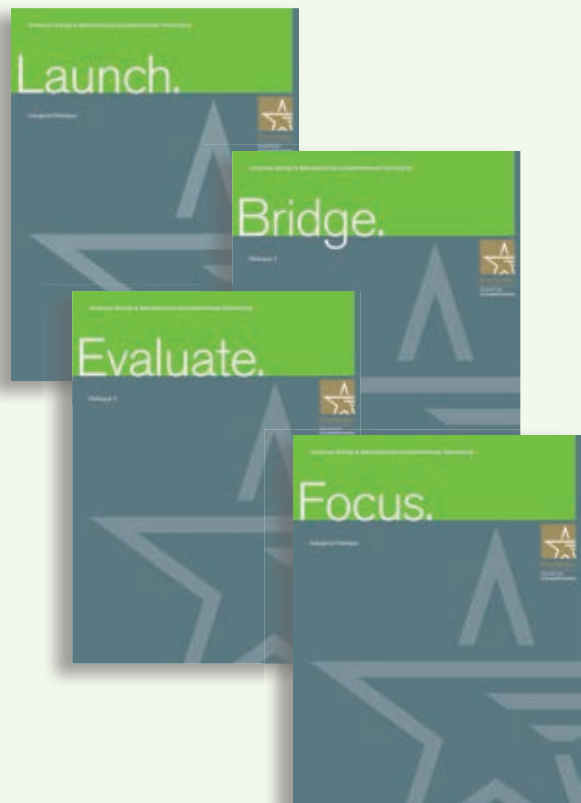
### 2013 AEMC Partnership Dialogue Series

Throughout 2013, the Council hosted four dialogues to generate at least one public-private partnership concept that EERE and/or the Council's membership could carry out to increase the competitive production of clean energy, energy efficiency and advanced manufacturing products in the United States; or, increase manufacturing competitiveness through increased energy productivity measures.

- Inaugural dialogue, held in Washington, D.C. on April 11-12, leaders discussed the importance of public-private partnerships in unleashing a resurgence of the energy and manufacturing sectors in the United States;
- Dialogue 2, hosted by Lloyd Jacobs, President, The University of Toledo, held in Toledo, OH on June 20, convened stakeholders around the discussion to bridge the innovation ecosystem through tangible and focused public-private partnership concepts;
- Dialogue 3, hosted by Mark Little, Senior Vice President and Chief Technology Officer, General Electric and Director, GE Global Research, held in Niskayuna, NY on August 12-13, gathered regional and national leaders to evaluate five distinct public-private partnership concepts with the potential to increase U.S. competitiveness in the energy and manufacturing sectors; and
- Dialogue 4, hosted by Michael Splinter, Executive Chairman of the Board, and Omkaram Nalamasu, Chief Technology Officer, Applied Materials, held in Santa Clara, CA on October 17, charged stakeholders to focus on two expanded public-private partnership concepts and provide feedback on which public-private partnership concept maximizes increased U.S. competitiveness in the energy and manufacturing sectors.



**Top:** Mr. Chad Evans, Executive Vice President, Council on Competitiveness; the Honorable Paul Tonko, U.S. House of Representatives, (NY-20); the Honorable Deborah L. Wince-Smith, President and CEO, Council on Competitiveness; the Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy; Ms. Elizabeth Wayman, Director, Clean Energy Manufacturing Initiative, Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy; Ms. Jetta Wong, Deputy Director, Clean Energy Manufacturing Initiative, Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy; and Dr. Mark Little, Senior Vice President and Chief Technology Officer, General Electric Corporation and Director, GE Global Research.





**Top:** Participants of the 2nd AEMC Dialogue held at the University of Toledo.

**Center Left:** Dr. Omkaram Nalamasu, Chief Technology Officer, Applied Materials, Inc. and Dr. Gregory Raupp, Director, Macro Technology Works, Arizona State University at the AEMC Dialogue 4.

**Center Right:** The Honorable Shirley Ann Jackson, President, Rensselaer Polytechnic Institute speaks at the 3rd AEMC Dialogue at GE's Global Research Center.

**Bottom:** Mr. Michael R. Splinter, Executive Chairman of the Board, Applied Materials, Inc., & Industry Vice Chair, Council on Competitiveness hosts AEMC Partnership Dialogue 4.



## 2014 OUTLOOK

### The Energy and Manufacturing Competitiveness Partnership

America's energy landscape—and its impact on U.S. manufacturing—is undergoing a dramatic transformation, redrawing global geopolitical relationships, re-calibrating business and manufacturing decision making, and recharging the industrial batteries of American communities. In addition, the United States holds aces in its research, innovation and venture capital assets. Wise policies and practices—designed and enacted now—could unleash the power of these advantages to elevate U.S. productivity and prosperity for the coming decades.

The Council is poised to leverage these assets and capture a new wave of manufacturing here in the United States. Convening leaders from across business, academia, labor, the national laboratories, and government, the Council in 2014 will unite formally its core work streams in energy and manufacturing by launching the U.S. Energy and Manufacturing Competitiveness Partnership.

The Council will hold the inaugural Steering Committee meeting of the EMCP in 2014. This convening of C-suite leaders from across all sectors will lay the groundwork for a multi-year partnership that will include activities like:

#### **The Second Annual American Energy and Manufacturing Competitiveness Summit**

Building on the success of the inaugural AEMC Summit in December 2013, Council and EERE will host the second American Energy & Manufacturing Competitiveness Summit on September 17, 2014 in Washington, D.C.

### The AEMC Progressive Dialogue Series and Public-Private Partnership Development

Continuing the progressive dialogue series from 2013, a fifth regional AEMC Partnership dialogue will take place on April 16, 2014 at the University of California, Berkeley, hosted by Chancellor Nicholas Dirks. This dialogue will lay concrete foundations for the creation of a high-impact public-private partnership to increase U.S. competitiveness in the energy and manufacturing sectors.

### Sectoral Studies and Working Groups

The Council will convene the inaugural steering committee meeting of the EMCP in 2014 and set an ambitious agenda, building a foundation of deep-dive investigations of the competitiveness drivers, challenges, and opportunities within strategic sectors of the U.S. economy, and laying out a policy roadmap for the present and future administration and Congress.

### The *Global Manufacturing Competitiveness Index*

Throughout 2014, the Council and Deloitte Touche Tohmatsu will team up to release the third *Global Manufacturing Competitiveness Index* (GMCI), a worldwide survey of C-suite manufacturing executives on their opinions and observations of the manufacturing competitiveness landscape. Much more than a simple ranking of global indicators, the GMCI is a class-leading analysis of the decision making process in the manufacturing sector—and part of a continuously evolving analysis to understand better the trends creating a hyper-connective global manufacturing environment.



*Dr. Jay Kim, Director, School of Dynamic Systems, University of Cincinnati; Mr. Lorry Wagner, President, Lake Erie Energy Development Corporation; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; (speaking) Dr. Lloyd A. Jacobs, President, The University of Toledo; the Honorable David T. Danielson, Assistant Secretary of Energy Efficiency and Renewable Energy, U.S. Department of Energy; and Ms. Elizabeth Wayman, Director, Clean Energy Manufacturing Initiative, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy.*

*“The single biggest increment that America can gain in our ability to compete would be to work hard as the Council has done, to build bridges and dialogues—looking for common language and common culture between America’s manufacturers and its institutions of higher education.”*

**Dr. Lloyd Jacobs, President**

University of Toledo  
Inaugural AEMC Summit  
December 12, 2013

## COMPETE: LEADERSHIP

**Infrastructure Week 2014**

May 12-16, 2014

The Council's landmark National Innovation Initiative identified infrastructure, alongside talent and investment, as one of three key pillars of American competitiveness.

During the last several years, the Council has addressed critical infrastructure issues through its core work streams in sustainability and resilience, manufacturing, energy and high performance computing.

In 2014, the Council is building a coalition for action to address infrastructure revitalization, leading a growing chorus of voices from the business, labor, non-profit and academic communities sounding a clarion call for infrastructure renewal.

With key business leaders and NGOs spanning the political spectrum and including a large tent of infrastructure issues, this coalition—including the U.S. Chamber of Commerce, the National Association of Manufacturers, Brookings Institution's Metropolitan Policy Program, and Building America's Future—will focus the nation's attention on critical infrastructure needs impacting our nation's overall competitiveness.

Planned for the week of May 12-16, 2014, Infrastructure Week is leveraging the Council's convening power to bring business leaders, governors and mayors, and leading experts to Washington, D.C. This week of events will highlight the importance of freight and manufacturing, transit systems, water

and wastewater systems, and the overall importance of a resilient, streamlined infrastructure to America's ability to compete in the global economy—and the high costs of inaction.

The Council's Infrastructure Week 2014 efforts have been led by Council Senior Fellow Michelle Moore. Moore recently joined the Council from the



White House, where she was a Senior Advisor to the Director at the Office of Management and Budget. She led the president's infrastructure initiative to cut permitting timelines in half while creating incentives for better outcomes for community quality of life. And, as the admin-

istration's Federal Environmental Executive at the White House Council on Environmental Quality, she led the federal government's sustainability agenda.



For more information on infrastructure week, visit [www.infrastructureweek2014.com](http://www.infrastructureweek2014.com).

*“Our global competitiveness depends on a smart, strategic approach to rebuilding and revitalizing America’s infrastructure. The U.S. receives an enormous return on infrastructure investments—from jobs, making communities more attractive and improving quality of life—and it’s past time we work together as a nation to make the proper investments. America’s transportation and infrastructure network is the backbone of our economy, and we must have a strong foundation to support economic growth.”*

**Paul Yarossi**  
President  
HNTB Holdings Ltd.



Council member and HNTB Holdings Ltd. President Paul Yarossi has been a leader in the Council’s effort to launch Infrastructure Week 2014.

## COMPETE: LEADERSHIP

# National Engineering Forum

## Addressing National Engineering Challenges and Opportunities



[www.nationalengineeringforum.com](http://www.nationalengineeringforum.com)

@NatlEngForum 

### 2013 IN REVIEW

The competitiveness of the United States depends on a skilled workforce of engineers and innovators who are equipped to design solutions to the nation's most critical needs. To that end, the U.S. must advance the quantity, quality and diversity of its engineering workforce to fuel the economy and advance U.S. leadership on the world stage.

America must ensure engineers are equipped for 21st century challenges and opportunities, and skilled in emerging disciplines at the heart of long-term productivity, prosperity and pre-eminence.

The National Engineering Forum (NEF) is a movement jumpstarted in earnest in 2013 by the Council on Competitiveness—in partnership with Lockheed Martin Senior Vice President and Chief Technology Officer, Dr. Ray O. Johnson, and Vice President, Engineering, Mr. Jeff Wilcox. The NEF launched eight regional dialogues in 2013 across the nation focused on building a community of leaders to find solutions to a core set of challenges facing the U.S. engineering enterprise.

### The NEF 3 C's

**Capacity** of our technical talent to fill current and future jobs

**Capability** of our engineering workforce to address 21st century challenges

**Competitiveness** of America on the world stage

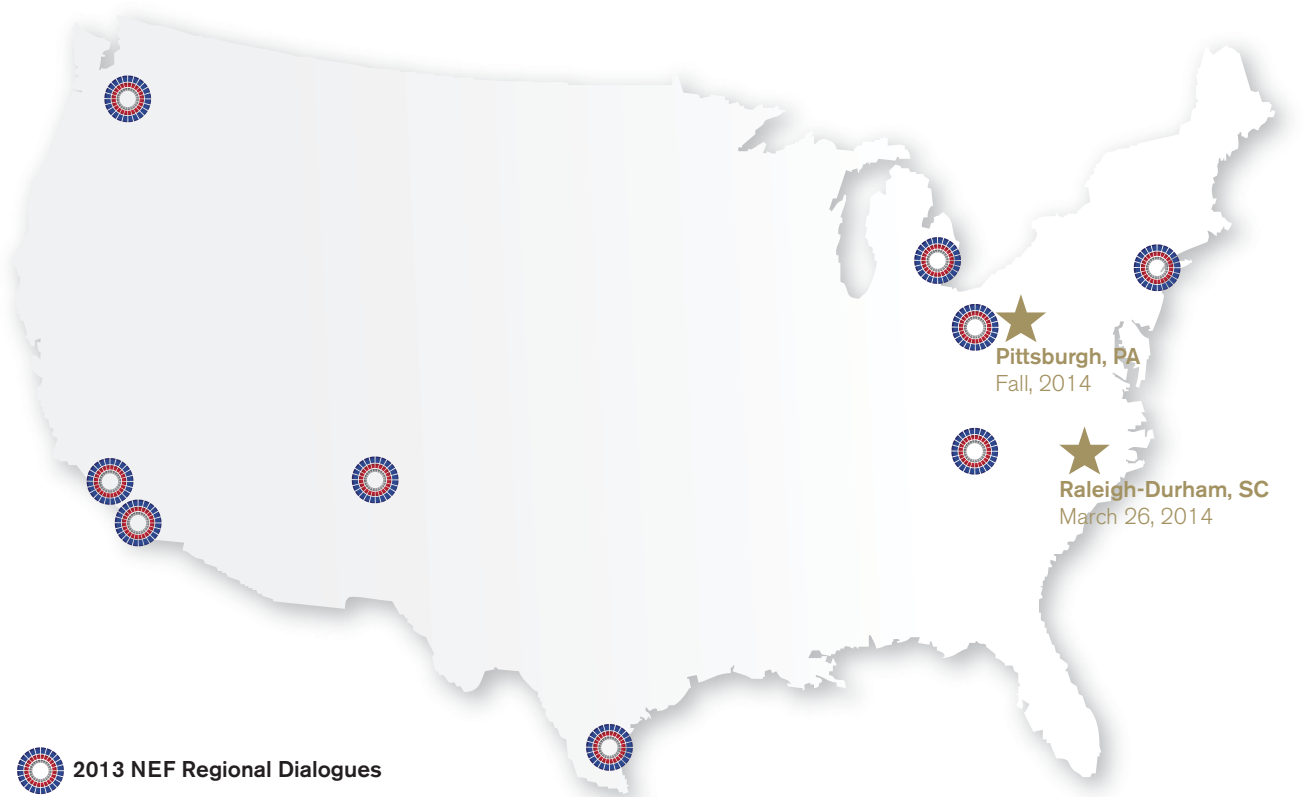


Oak Ridge National Laboratory plays host to the first NEF dialogue, April 18, 2013.

*“The National Engineering Forum brings together leaders from a cross-section of disciplines focused on addressing the challenges of capacity, capability, and competitiveness in the engineering community. Engineers are problem solvers by nature, and coming together to take action on the 3C's is critical to our nation's continued security and prosperity.”*

**Jeff Wilcox**

Vice President of Engineering  
Lockheed Martin and NEF Co-Founder



## 2014 OUTLOOK

Building on the success of engaging hundreds of leaders across eight major, regional dialogues in 2013, going forward in 2014, the Council and Lockheed Martin will host additional conversations around the country to shape the NEF agenda and build a community of action, leading to a cornerstone, NEF national event in Washington, D.C., in 2015. Confirmed 2014 dialogues will take place in Raleigh-Durham and Pittsburgh.

To continue deepening the movement, NEF is launching a new effort to capture the enthusiasm and energy of students and young professionals around the 3 C's—"NEF Generation." NEF Generation is now on Instagram—and will host special events in selected regional dialogues in 2014.



@NEFGeneration 

*“America’s future productivity, prosperity and security are functions of the roles engineers and the engineering profession plays in our society. In an era of turbulence, transition and transformation, engineering leadership will be critical in building a strong foundation for America’s long-term growth and competitiveness.”*

### **Chad Evans**

Executive Vice President  
Council on Competitiveness



**Top:** Mr. Chad Evans, Executive Vice President, Council on Competitiveness; Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; Dr. Thomas E. Mason, Director, Oak Ridge National Laboratory; Ed Morris, Vice President & Director - America Makes, National Center for Defense Manufacturing and Machining (NCDMM).

**Center:** The University of Southern California Viterbi School of Engineering plays host to an NEF dialogue, June 11, 2013.

**Bottom:** Dr. Dinesh Verma, Dean, School of Systems and Enterprises, Stevens Institute of Technology; Dr. Yannis Yortsos, Dean, Viterbi School of Engineering, University of Southern California; Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; Mr. Chad Evans, Executive Vice President, Council on Competitiveness.

**Top:** Mr. Chad Evans, Executive Vice President, Council on Competitiveness; Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Dr. Ray O. Johnson, Senior Vice President & Chief Technology Officer, Lockheed Martin; Dr. Paul J. Hommert, Director, Sandia National Laboratories & President, Sandia Corporation.

**Bottom:** The Honorable Janet Napolitano, President, University of California.



**Top:** Dr. Pradeep Khosla, Chancellor, University of California, San Diego.

**Center:** Dr. Rico Malvar, Chief Scientist, Microsoft Research; Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. Michael Kluse, Laboratory Director, Pacific Northwest National Laboratory; Michael Bragg, Dean, College of Engineering, University of Washington; Mr. Chad Evans, Executive Vice President, Council on Competitiveness.

**Bottom:** Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; Dr. M. Katherine Banks, Vice Chancellor and Dean of Engineering, the Texas A&M University System; Dr. Mark Albers, Senior Vice President, Exxon Mobil Corporation; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. John Sharp, Chancellor, the Texas A&M University System.

**Top:** Mr. Chad Evans, Executive Vice President, Council on Competitiveness; Ms. Meagan Campion, Senior Manager, and Mr. Steven Betza, Director, Hardware Engineering & Advanced Manufacturing, Lockheed Martin; and other NEF participants at Ohio Stadium in Columbus OH, October 31, 2013.

**Center:** The Honorable Joe Barton, United States House of Representatives, (TX-6).

**Bottom:** Ms. Meagan Campion, Senior Manager, Lockheed Martin; Dr. Mary Sue Coleman, President, University of Michigan; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. Jeffrey J. Wilcox, Vice President of Engineering, Lockheed Martin; Ms. Kouhaila Hammer, President & CEO, Ghafari & Board President, Engineering Society of Detroit; Dr. Lou Anna K. Simon, President, Michigan State University; Mr. Chad Evans, Executive Vice President, Council on Competitiveness

**COMPETE: TECHNOLOGY**

# Setting the benchmark for collaborative innovation strategy

## Technology Leadership & Strategy Initiative

The Technology Leadership & Strategy Initiative (TLSI) passed the five-year milestone in 2013, holding its 10th CTO dialogue. The enduring strength of the TLSI is evident in its continued success, growth and impact. Convening twice annually, this elite group of four dozen chief technology officers from America's premier companies and their peers from top research universities and national laboratories continues to provide the intellectual underpinnings of many Council initiatives, and to make the business case for strategic, prioritized investments in the research, talent and infrastructure necessary for technology based innovation across the global economic landscape.

The initiative continues under the leadership of co-chairs Dr. Klaus Hoehn, Vice President of Advanced Technology and Engineering, Deere & Company; Dr. Ray O. Johnson, Senior Vice President and Chief Technology Officer, Lockheed Martin; and Dr. Mark Little, Senior Vice President and Chief Technology Officer, General Electric Company.

The TLSI strives to enable more productive American and global research partnerships and to both preserve and invigorate the nation's technology leadership—a core driver of national productivity over the past half-century. An invigorated innovation enterprise creates new jobs and firms, drives economic growth, and is essential to solve some of America's greatest challenges in areas as diverse as healthcare, energy, and security.

## 2013 IN REVIEW

2013 was a year of growth for the TLSI, with nearly a dozen new leaders from the private sector and academia joining its ranks. The TLSI themes in 2013 addressed global collaboration for collective innovation, and aligning workforce development strategies with technology innovation.



*Dr. Mark M. Little, Senior Vice President & Chief Technology Officer, General Electric Corporation & Director of GE Global Research; Dr. Klaus G. Hoehn, Vice President, Advanced Technology and Engineering, Deere & Company; and Dr. Spiros Dimolitsas, Senior Vice President & Chief Technology Officer, Georgetown University.*

TLSI Dialogue 9, “Coordinate: Advancing Global Innovation—Challenges and Opportunities,” was held in June 2013, at Georgetown University, hosted by Dr. Spiros Dimolitsas, Senior Vice President and Chief Technology Officer, Georgetown University. For the first time, Dialogue 9 convened an international group of technologists, joining the Council’s TLSI membership with a delegation of senior business, government, and academic leaders from Brazil—a key partner in the Council’s global innovation program.

The dialogue focused on a range of topics illustrating the growing importance of transnational, cooperative research, development and innovation, and what models for concrete collaboration have the potential to drive progress and prosperity, regardless of geography and political boundaries. This conversation set the stage for a deeper and higher dialogue between the Obama and Rousseff administrations, and served as a platform to hone collaboration models and concepts that were addressed in September 2013 in Rio de Janeiro at the 3rd U.S.-Brazil Innovation Summit.



**Top:** H.E. Mauro Borges Lemos, Minister of Development, Industry & Foreign Trade, Federative Republic of Brazil, and former President, Brazilian Agency for Industrial Development, (ABDI); (back left) Dr. Roberto dos Reis Alvarez, Manager of Analysis & Strategic Projects, ABDI.

**Center:** Dr. Ray O. Johnson, Senior Vice President & Chief Technology Officer, Lockheed Martin.

**Bottom:** Dr. Klaus G. Hoehn, Vice President, Advanced Technology and Engineering, Deere & Company; Ms. Edie Weiner, President, Weiner, Edrich & Brown; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. Chad Evans, Executive Vice President, Council on Competitiveness.





TLSI Dialogue 10, “Educate: Strategies for Aligning Technology Innovation, Higher Education, and Workforce Development,” took place on October 3, 2013. The dialogue addressed the crucial workforce and education pillar of innovation infrastructure, with a focus on understanding how technological productivity and education pathways can align to reinforce an economy defined both by increasing productivity and an agile, productive, and fully employed workforce. Key contributors included Ms. Edie Weiner, President, Weiner, Edrich & Brown; Mr. Ed Reilly, Global Chief Executive Officer, Strategic Communications, FTI Consulting; and Ms. Teresa Stanek Rea, former Acting Undersecretary of Commerce for Intellectual Property and former Acting Director, U.S. Patent and Trademark Office.



## 2014 OUTLOOK

The TLSI will continue into its 6th year in 2014, and host Dialogues 11 and 12 on June 19, and November 4, respectively, deepening the relationships and impact of the distinctive, progressive, evolving CTO conversation launched in 2009. For more information on TLSI, and on upcoming TLSI activities, contact Council Executive Vice President Chad Evans at [cevans@compete.org](mailto:cevans@compete.org).



**Top:** Dr. Steven Beckwith, Vice President for Research & Graduate Studies, University of California System Board of Regents; and (speaking) Dr. Steven Ashby, Deputy Director for Science and Technology, Pacific Northwest National Laboratory.

**Center:** Dr. Alan Snyder, Vice President & Associate Provost, Lehigh University; and (speaking) Dr. Tilak Agerwala, Vice President, Systems, IBM.

**Bottom:** The Honorable Teresa Stanek Rea, former Acting Undersecretary of Commerce for Intellectual Property & former Acting Director, U.S. Patent and Trademark Office.

## COMPETE: TECHNOLOGY

# Council on Competitiveness Global CTO Conversations™

## 2013 IN REVIEW

Building off of key themes explored and findings developed over the past five years by the Technology Leadership & Strategy Initiative (TLSI), the Council launched a new “Global CTO Conversation” series. The first engagement took place at the 10th anniversary of the STS forum in Kyoto, Japan, October 2013.

The Global CTO Conversation debut, led and supported by Lockheed Martin Senior Vice President and Chief Technology Officer Dr. Ray O. Johnson, included both peer-to-peer engagements of more than two dozen CTOs from the United States, Europe and Asia, as well as a plenary panel at the STS forum that included: TLSI member Dr. Mehmood Khan, Chief Executive Officer of Global Nutrition Group and Chief Scientific Officer, PepsiCo Inc.; Dr. Shigeru Azuhata, Executive Vice President and Executive Officer, Hitachi, Ltd.; Dr. Genevieve Berger, Chief Research and Development Officer, Unilever; Dr. Richard Roberts, Chief Scientific Officer, New England Biolabs Inc. and Nobel Laureate for Medicine 1993; and Dr. Bertrand Bovin Senior Vice President, Research and Development, Philip Morris International.

Both the peer-to-peer conversation and panels, moderated by Dr. Johnson, addressed a range of questions, including:

- How does today’s chief technology officer help create—for the long-term—a more sustainable planet by using the instruments of technology, engineering, manufacturing, sustainment and supply chains?
- In the face of global grand challenges—from addressing and mitigating global climate change; to optimizing scarce, yet interdependent resources, like energy, food and water; to securing the “private” in an increasingly “public” and cyber-enabled world; to engineering better health outcomes—how does the CTO leverage technology and innovation to manage large-scale organizations and create value?
- In what way is the role of the CTO evolving as global enterprises seize on business opportunities arising at the intersection of technology, management, finance, and societal transformation?
- How do CTOs “scope and scale” long-term, value-creation and sustainability-enhancing opportunities for companies and society at large?

## 2014 OUTLOOK

The Council, with the leadership of Dr. Johnson, will host its 2nd Global CTO Conversation at the 2014 STS forum in Kyoto, Japan. In addition, the Council looks to build upon and expand the geographic reach of the Global CTO Conversation in key innovation markets.



**Top:** CTOs meet for the first "Global CTO Conversation" series at the 10th anniversary of the STS forum in Kyoto, Japan, October 2013.



**Left:** Dr. Ray O. Johnson, Senior Vice President & Chief Technology Officer, Lockheed Martin.

## COMPETE: TECHNOLOGY

# High Performance Computing

The High Performance Computing Advisory Committee (HPCAC) works to increase national competitiveness through the transformational use of advanced computing. Three prominent U.S. leaders in the field from the national laboratories, industry, and academia co-chair the HPCAC: Dona Crawford, Associate Director for Computation, Lawrence Livermore National Laboratory; J. Michael McQuade, Senior Vice President, Science and Technology, United Technologies Corporation; and Steven Koonin, Director of the Center for Urban Science and Progress and Professor of Information, Operations & Management Sciences at the Leonard N. Stern School of Business of New York University.

The HPCAC convenes nearly 25 national leaders to address key issues in advanced computing and to exchange information with government leaders on strategies for continued American leadership. High performance computing leadership is essential for industrial competitiveness, national security, and pushing the frontiers of knowledge.

## 2013 IN REVIEW

On March 14, the HPCAC met in New York City hosted by Bradford Spiers, Senior Vice President and Senior Architect, Technology Innovation Portfolio, for Bank of America Corporation. The meeting served to refine the Committee's agenda, exploring issues relating to talent, software, integrating HPC across enterprises, and improving collaboration across America's HPC ecosystem. Spiers also briefed members about the financial applications of advanced computing.

HPCAC engaged Congress successfully in 2013. On May 22, the House Science, Space and Technology Committee held a hearing on America's Next Generation of Supercomputers—The Exascale Challenge. HPCAC members Crawford and Daniel

Reed, Vice President for Research and Economic Development, and Computational Science and Bioinformatics Chair at the University of Iowa testified.

On July 10, the Council hosted a well-attended Congressional staff briefing on Extreme Computing. Rep. Randy Hultgren (R-IL) and Rep. Chaka Fattah (D-PA) kicked off the meeting, while Crawford; McQuade; retired Executive Vice President of IBM Corporation, Nick Donofrio; and the Founding Director of the Hariri Institute for Computing and Computational Science & Engineering at Boston University, Azer Bestavros briefed Staffers.

The HPCAC convened again July 11 at IBM's Washington, D.C. offices. Koonin briefed the committee about data-driven versus physics-driven computing and how urban areas will better serve their citizens by extracting intelligence and improving decision making through data collection and analytics.

At the 2013 Supercomputing Conference held in Denver in November, the Council presented an overview of its HPC initiatives as part of a program to showcase the commercial impact of HPC. Co-Chairs Crawford and Koonin also addressed the conference on Extreme Computing and industrial competitiveness.

On December 10, the HPCAC convened to narrow its priorities to a specific set of actions on which work would begin in 2014. Those priorities are to:

- Define a skill set / "curriculum" for undergraduate engineers in their field that prepares them to "think computationally"—addressing gaps and needs as identified by membership, and communicating recommendations to appropriate educational entities and professional organizations.



- Conduct a series of targeted forums with independent software vendors, users and laboratories to examine licensing/business models that (1) meet the needs of all parties in lowering barriers to entry and use and (2) incentivize ISVs to scale to evolving parallel hardware architectures.
- Develop policy recommendations that broaden access for industrial/commercial users to high-end computing capabilities largely resident in national laboratories and university supercomputer centers.

**Top:** Dr. Michael McQuade, Senior Vice President, Science & Technology, United Technologies Corporation & HPCAC Co-Chair; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; the Honorable Steven Koonin; Founding Director, Center for Urban Science & Progress (CUSP) & Professor of Information, Operations & Management Sciences, Leonard N. Stern School of Business, New York University & HPCAC Co-Chair.

**Bottom:** Mr. Chris Mustain, Vice President, Council on Competitiveness; Dr. Cynthia McIntyre, Senior Vice President, Council on Competitiveness; Dr. Walt Kirchner, Institutional Liaison Manager, Argonne National Laboratory & former Chief Technologist in Residence, Council on Competitiveness.

**2014 OUTLOOK**

The principal work of the HPCAC in 2014 will be to make tangible progress on the three priorities selected in December 2013. Working groups on skills, software and access will offer progress reports at each HPCAC meeting. The working groups also will host calls and forums in 2014 that supplement the work of the full committee.

The HPCAC will continue to brief members on key policy and technology developments and to engage top public and private sector leaders in the work of the committee. Another 2014 priority for HPCAC in 2014 will be to expand its membership strategically.

**Top:** Dr. Roscoe Giles, Chairman, Advanced Scientific Computing Advisory Committee; Dr. Richard L. Stevens, Associate Laboratory Director, Computing & Life Sciences, Argonne National Laboratory; Ms. Dona Crawford, Associate Director, Computation, Lawrence Livermore National Laboratory & HPCAC Co-Chair; and Dr. Dan Reed, Vice President for Research & Economic Development, University of Iowa.

**Bottom:** Dr. Michael McQuade, Senior Vice President, Science & Technology, United Technologies Corporation.

## COMPETE: TECHNOLOGY

# National Digital Engineering and Manufacturing Consortium, Inc.



## 2013 IN REVIEW

The National Digital Engineering and Manufacturing Consortium (NDEMC), initially capitalized through a public-private partnership, successfully concluded its performance under the U.S. Department of Commerce's Economic Development Administration Award in June 2013.

Building on more than a decade of leadership in promoting the use of high performance computing (HPC) for competitive advantage, NDEMC began as a partnership of industry, federal agencies, state governments and solution partners (e.g. university computing centers).

NDEMC launched in 2011 and successfully helped small to medium-sized American manufacturing enterprises (SMEs) take advantage of MS&A technologies that were beyond their resources or expertise. NDEMC projects with 20 SMEs increased sales collectively by more than \$20 million per year, with half of those sales in exports. The SMEs created 160 new jobs in 2012 and developed three new products.

In response to the success of the NDEMC partnership, NDEMC Inc.—a nationwide, private entity to serve a broader swath of companies—was created. NDEMC Inc. will serve companies of any size that are not taking advantage of HPC resources and MS&A tools.



On July 9, Council Senior Vice President Dr. Cynthia McIntyre testified before the House Committee on Small Business, Subcommittee on Economic Growth, Tax and Capital Access about *American Competitiveness Worldwide: Impacts on Small Businesses and Entrepreneurs*. She discussed the benefits of modeling, simulation and analysis resources on the SMEs in the NDEMC program.



*Ms. Alice Popescu-Gatlan, Director, John Deere Technology Innovation Center, Deere & Company; Mr. Thomas Lange, Director, Corporate R&D Modeling and Simulation, Procter & Gamble Co.; Dr. George Adams, Deputy Director, Network for Computational Nanotechnology, Purdue University; Mr. Robert Graybill, President & CEO, Nimbis Services, Inc.; and Dr. Cynthia McIntyre, Senior Vice President, Council on Competitiveness.*

## 2014 OUTLOOK

NDEMC Inc. will continue to scale nationally; meanwhile the program has been named a supporting partner in the winning proposal selected by the White House for a major manufacturing hub at the Chicago-based UI LABS announced on February 25.

The U.S. Department of Defense awarded UI LABS \$70 million to fund the Digital Lab, which will leverage \$250 million in commitments from leading industry partners including Council members

General Electric, John Deere, Procter & Gamble and Lockheed Martin, as well as other academia, government and community partners to form a \$320 million institute.

NDEMC's experience in working with universities, companies and the United States Government to help small and medium size manufacturers will bring a unique capability to the Digital Lab.

# Network of American Leaders





**OPPOSITE PAGE**

**Top:** The Honorable Bart J. Gordon, Partner, K&L Gates, and Distinguished Fellow, Council on Competitiveness, and Dr. Thomas E. Mason, Director, Oak Ridge National Laboratory, at the 2013 National Competitiveness Forum.

**Center Left:** Dr. Harris Pastides, President, University of South Carolina and Dr. Luis M. Proenza, President, The University of Akron at the 2013 Council Executive Committee Meeting.

**Center Right:** Mr. Larry Weber, Chairman, W2 Group Inc.; Mr. John E. McGlade, Chairman, Air Products (left) at the 2013 Council Executive Committee Meeting.

**Bottom Left:** Mr. William H. Bohnett, President, Whitecap Investments LLC, at the 2013 Council Executive Committee Meeting.

**Bottom Right:** Mr. James Philips, Chairman & CEO, NanoMech, Inc. speaks during a panel session of the inaugural AEMC dialogue, April 12, 2013.

**THIS PAGE**

**Top Left:** Dr. Dan E. Arvizu, Director, National Renewable Energy Laboratory; the Honorable Alexander A. "Andy" Karsner, CEO, Manifest Energy & Distinguished Fellow, Council on Competitiveness and the Honorable David T. Danielson, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy at the 2013 Council Chairman's Dinner.

**Top Right:** Mr. Kenan E. Sahin, Founder & President, TIAX LLC at the 2013 Council Executive Committee Meeting.

**Center Left:** Dr. Paul J. Hommert, Director, Sandia National Laboratories & President Sandia Corporation, speaks on a panel at the inaugural American Energy and Manufacturing Competitiveness (AEMC) Summit.

**Center Right:** The Honorable Norman R. Augustine, former Chairman and CEO, Lockheed Martin, speaks at the inaugural American Energy and Manufacturing Competitiveness (AEMC) Summit.

COMPETE: BENCHMARKING

# The 2015-2016 *Competitiveness Index* and the Economic Advisory Committee

In the coming year, the Council on Competitiveness will begin production on the 2015-2016 *Competitiveness Index (Index)*—the Council’s flagship competitiveness benchmarking publication.

The Council’s Executive Committee created the first Index in 1988 in response to a strong high-technology and export challenge from Japan and West Germany. At this time, the term “competitiveness” had not yet entered the common lexicon. As such, Council leadership, including Michael E. Porter of Harvard University, envisioned this first Index as a tool to provide national leaders with a fundamental understanding of the complex set of interconnected factors that underpin a globally competitive United States.

Armed with this information, the Council’s founders set the national terms of debate for the quality movement, technological leadership, and global performance while laying an agenda for public policies to support America’s productivity and prosperity. The following two decades included the longest period of sustained economic growth in U.S. history.

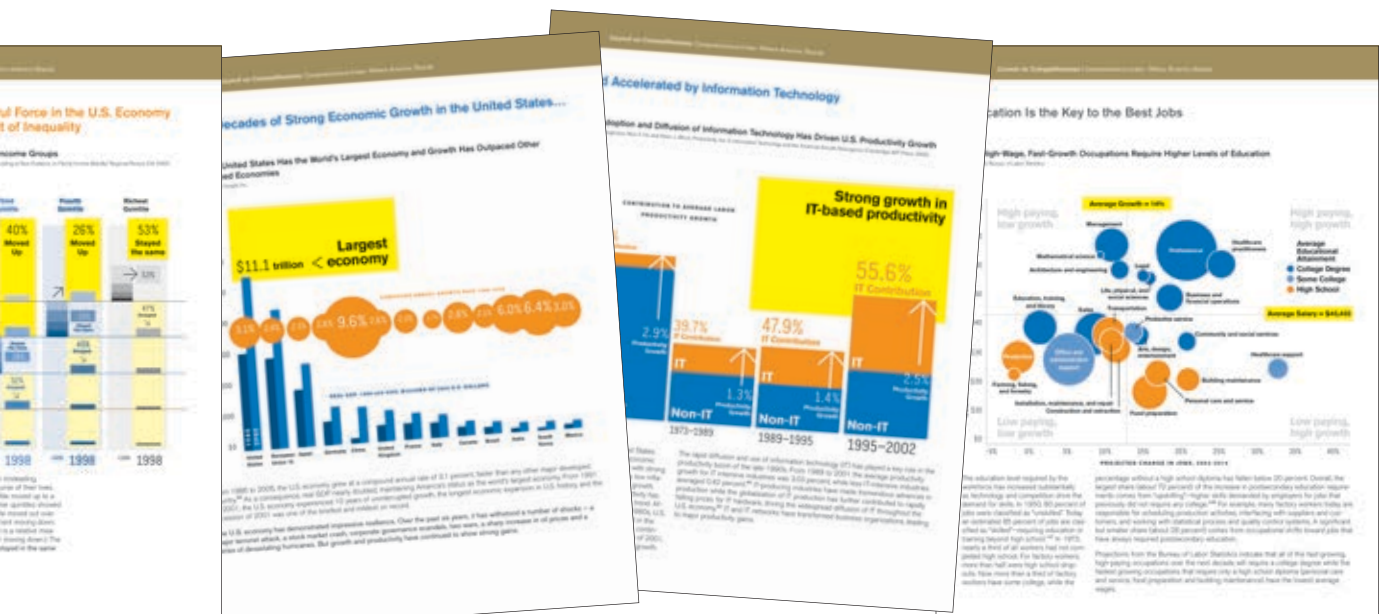
Today, the U.S. continues a slow climb out of the worst recession since the Great Depression. International competition for U.S. businesses, top talent, and higher education institutions is intensifying at a blistering pace, and the nation is just beginning to understand the effects of structural changes in the U.S. economy (namely a severe loss of manufacturing capacity in the years between 2000 and 2010). Taken together, it is clear the U.S. once again must take collective action in this new era of turbulence, transition, and transformation. The 2015-2016 *Competitiveness Index* will provide the roadmap to future prosperity for the nation’s people.

The development of the 2015-2016 *Competitiveness Index* parallels a core challenge faced by all actors in the innovation ecosystem—managing complexity. The first Index contained only a handful of core metrics and a small set of industrialized nations. In contrast, the last Index considered hundreds and closely analyzed 80+ indicators and provided a comparative analysis across more than 40 countries over two decades. Moreover, since



the last Index's publication, more than 90 percent of the world's data has been generated in an era of "big data", and measurement science has dramatically increased in sophistication.

Anticipating and proactively managing the complexity of 21st century competitiveness, the Council has launched the Economic Advisory Committee (EAC)—a forum of nearly 40 leading economists across industry, academia, labor, non-governmental organizations and think tanks. In addition to weighing in on the Council's overall analytical approach to understanding competitiveness, the EAC will come together in 2014 to help inform the direction and structure of the 2015-2016 Index, select metrics that most effectively capture the drivers of economic growth, and ensure the Index remains a world-class competitiveness benchmarking tool.



## COMPETE: GLOBAL

## 3rd U.S.–Brazil Innovation Summit

## 2013 IN REVIEW

The Council on Competitiveness hosted with partners in Brazil the 3rd U.S.-Brazil Innovation Summit in Rio de Janeiro, September 11-12, 2013. The C-suite Summit—which brought together more than 500 of the most senior private and public sector leaders from both nations, built off the preceding Summits in 2007 and 2010, as well as more than 15 “Innovation Learning Labs” (bilateral workshops engaging corporate, academic, laboratory and government leaders). It also further deepened and accelerated concrete proposals to increase bilateral innovation engagements; catalyzed business and research projects; and published material linked to the initiative.

The 3rd US-Brazil Innovation Summit focused squarely on a bias for action—moving beyond idea generation to take steps in advancing the design and implementation of projects, initiatives and other co-developed efforts.

Key thematic areas included:

- Optimizing technological innovation in the life sciences (from the basic research underpinning biotech and pharmaceuticals, to medical devices, to the delivery of healthcare technology and solutions).
- Leveraging opportunities across the global energy spectrum (bridging the gap between the use of new fossil fuel sources and the development of renewable energy sources).
- Developing and deploying information and communications technologies to drive innovation across all sectors of society (from advanced manufacturing, to life sciences, etc.).
- Innovating sustainably in the nexus of food, energy and water resources.



*Mr. Luciano Coutinho, President, BNDES*

The Summit chairs were: Samuel R. Allen, Chairman and CEO of Deere & Company, and Chairman of the Council on Competitiveness; Deborah L. Wince-Smith, President and CEO, Council on Competitiveness; Luciano Coutinho, President of the Brazilian National Development Bank (BNDES); Mauro Borges, Minister, Ministry of Development, Industry and Trade (MDIC), Government of Brazil; and, Jorge Gerdau Johannpeter, Chairman of the Board of Directors of Grupo Gerdau and Founder of the Brazilian Competitiveness Movement (MBC).

The Summit also featured two critical and complementary sessions. First, Luciano Coutinho hosted a special, VIP session to identify guidelines for shaping, financing, allocating human resources and managing innovation projects in these key areas—while also promoting greater, joint entrepreneurial activity between the United States and Brazil.

## U.S.-Brazil Bi-National Innovation Platform

Immediately following the Summit, the Council and its Brazilian partners hosted the inaugural Steering Committee meeting of the “U.S.-Brazil Bi-National Innovation Platform”—the vehicle to organize and develop new-to-the-world, scalable, innovation-based joint ventures and projects between the Western Hemisphere’s two largest economies.

The 2nd Steering Committee meeting of the U.S.-Brazil Bi-National Innovation Platform took place at Lawrence Livermore National Laboratory, February 17-29, 2014, hosted by LLNL Director Dr. William Goldstein, and Ms. Wince-Smith.

This meeting of more than two dozen private and public sector leaders—which included on the Brazilian side the presidents of INMETRO (the National Institute of Metrology, Quality and Technology), CAPES (the Coordination for the Improvement of Higher Education Personnel with the Ministry of

Education), CNPQ (the National Council for Scientific and Technological Development within the Ministry of Education); the managing director for BNDES; and the senior leadership team from CNI, the Brazilian National Confederation of Industry—focused squarely on evaluating potential pilots and scalable projects in drug discovery and development, enabling the “Internet of things”, advancing next generation biofuels, etc.

### 2014 OUTLOOK

The Council and its partners will continue developing concrete projects through the Bi-National Innovation Platform, and the Brazilian team will co-host a 3rd Steering Committee in the second half of 2014. In addition, work will begin in Fall, 2014 to plan the 4th U.S.-Brazil Innovation Summit. Chancellor Pradeep Khosla of the University of California–San Diego will host this Summit in 2015.

### U.S. Members of the Bi-National Innovation Platform

Dr. Dan Arvizu  
Director and Chief Executive  
National Renewable Energy  
Laboratory

Dr. Michael M. Crow  
President, Arizona State  
University, and University  
Vice Chair, Council on  
Competitiveness

Dr. Spiros Dimolitsas  
Senior Vice President for  
Research and Chief Technology  
Officer, Georgetown University

Dr. Robert Easter  
President, University of Illinois

Dr. William Goldstein  
Director, Lawrence Livermore  
National Laboratory

Dr. Klaus Hoehn  
Vice President, Advanced  
Technology & Engineering,  
Deere & Company

Dr. Eric Isaacs  
Provost, University of Chicago

Dr. Ray O. Johnson  
Senior Vice President and Chief  
Technology Officer, Lockheed  
Martin

Dr. Pradeep Khosla  
Chancellor, University of  
California, San Diego

Dr. Michael Kluse  
Laboratory Director, Pacific  
Northwest National Laboratory

Dr. Mark Little  
Senior Vice President and  
Chief Technology Officer of  
GE Global Research, General  
Electric Company

Dr. Thomas E. Mason  
Laboratory Director, Oak Ridge  
National Laboratory

Dr. Michael McQuade  
Senior Vice President, Science  
and Technology, United  
Technologies Corporation

Mr. James B. Milliken  
President, University of  
Nebraska

Mr. Blake Moret  
Senior Vice President, Control  
Products & Solutions, Rockwell  
Automation

Dr. Pete Worden  
Center Director, NASA Ames  
Research Center



**Top Left:** The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mr. Luciano Coutinho, President, BNDES; Ambassador Miriam Shapiro, former Deputy United States Trade Representative; H.E. Mauro Borges Lemos, Minister of Development, Industry & Foreign Trade, Federative Republic of Brazil, and former President, ABDI; Mr. Samuel R. Allen, Chairman & CEO, Deere & Company and Chairman, Council on Competitiveness; and Mr. Jorge Gerdau Johanpeter, President, Gerdau Group.

**Top Right:** Mr. Samuel R. Allen, Chairman & CEO, Deere & Company and Chairman, Council on Competitiveness.

**Center Left:** Mr. Samuel R. Allen, Chairman & CEO, Deere & Company and Chairman, Council on Competitiveness; Luciano Coutinho, President, BNDES; Ms. Gianna Sagazio, Advisor to the President, BNDES; Mr. Chad Evans, Executive Vice President, Council on Competitiveness; The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; H.E. Mauro Borges Lemos, Minister of Development, Industries & Foreign Trade President, Federative Republic of Brazil and former President, ABDI; and Ms. Candida Oliveira, Chief of Staff, ABDI.

**Bottom Right:** Dr. Pradeep Khosla, Chancellor, University of California, San Diego; Dr. Ray O. Johnson, Senior Vice President & Chief Technology Officer, Lockheed Martin.





*VIP meeting at the 3rd U.S.-Brazil Innovation Summit, Copacabana Palace, Rio De Janeiro.*

## COMPETE: GLOBAL

# Global Federation of Competitiveness Councils (GFCC)

## 2013 IN REVIEW

The Council continues to leverage its strong presence in the international community by broadening its understanding of how key U.S. trading partners and markets address challenges to their own competitiveness. Through its role as the founding board member and secretariat of the Global Federation of Competitiveness Councils (GFCC), the Council maintains its clear connection to issues affecting national competitiveness in countries around the world, while deepening connections and forging new partnerships for its members.

The GFCC membership network now includes competitiveness councils in 35 countries around the globe. The GFCC is composed of seven Board Members, eleven General Members and a network of over 20 other national and regional organizations from countries whose markets are of strategic importance to Council members. Highlights from 2013 include:

In June, GFCC members traveled to Moscow for a two-day meeting hosted by the Eurasia Competitiveness Institute and OPORA Russia to refine the structure of the Competitiveness Scorecard (since rebranded as the Competitiveness Decoder™). Over the ensuing months, the Council has been collaborating with its partners in an online forum to further enhance the viability and visibility of this initiative.

On November 21-22, the GFCC co-hosted with H.E. Oh-Seok Hyun, Deputy Prime Minister, Ministry of Strategy and Finance, Korea—the Competitiveness Summit and the 2013 Annual Meeting in Seoul, Korea. These events brought together competitiveness councils from around the globe, c-suite leaders from U.S. and global private sectors, senior government officials from member countries, and other stakeholders to discuss competitiveness and the creative economy. The event presented several

Council members with unique business networking opportunities with public and private sector representatives from 20 countries.

The 2013 Competitiveness Summit marked the third year the GFCC has published a *Best Practices* guide and it has quickly become a must-read for competitiveness organizations around the world. This year's report demonstrated the importance of cultivating a highly skilled workforce for improving a nation's economic prosperity and featured case study contributions from participating GFCC member organizations from Brazil, Chile, Mongolia, Korea, the United Arab Emirates and the United States.

Each year the GFCC also re-releases its set of foundational *Global Competitiveness Principles*, which members have endorsed as critical for every nation seeking national prosperity in the global economy. At the 2013 Competitiveness Summit, in addition to releasing and reinforcing the foundational principles; the GFCC went a step further by introducing ten recommendations specifically geared towards helping identifying policies in support of a creative economy. Importantly, the Korean Ministry is taking steps to translate these recommendations into legislation.

Finally, the 2013 Competitiveness Summit marked the official launch of the GFCC Competitiveness Decoder™ prototype—a first-of-its-kind, web-based tool to understand the complexities of economic growth and development in an age of “Big Data.” The Decoder™, co-developed by the U.S. Council on Competitiveness and the Brazilian Agency for Industrial Development, with input from GFCC members, can be used to visualize data in a smart way; define relevant clusters of competitiveness for nations of different sizes and development; and, dynamically see how countries and their economies evolve. The Decoder™ will also evolve over time to become the global repository for competitiveness best practices.



*Mr. Guilherme Amaral, Special Advisor, Brazilian Agency for Industrial Development (ABDI); Dr. Roberto dos Reis Alvarez, Manager of Analysis & Strategic Projects, Brazilian Agency for Industrial Development (ABDI); and Mr. Chad Evans, Executive Vice-President, U.S. Council on Competitiveness & Treasurer, Global Federation of Competitiveness Councils launch the GFCC Competitiveness Decoder™ (<http://decoder.thegfcc.org>) at the 2013 GFCC Annual Meeting in Seoul, Korea.*



## 2014 OUTLOOK

At the 2013 GFCC Annual Meeting, members set out an ambitious agenda for 2014, which includes specific initiatives and strategic partnerships to advance understanding of the global economy. Over this period the organization will:

- Strengthen its Membership
  - Finalize membership with organizations within the GFCC Network and identify and recruit members from underrepresented regions around the world.
  - Continue to strengthen and diversify the Board of Directors by ensuring all regions are represented.
- Build Out and Promote the GFCC Competitiveness Decoder™
  - Build upon the tremendous work achieved on the GFCC Competitiveness Decoder™ prototype by seeking input and support from various stakeholders to gain legitimacy for its practical applications in different sectors to enhance the national competitiveness debate.
  - Continue to enhance the underlying data sets supporting the Decoder™.
  - Identify resources to support the ongoing maintenance and evolution of the Decoder™.
  - Launch the full version at the next GFCC annual meeting in October in Moscow.
  - Deepen Partnerships
  - Finalize securing UN NGO status for the GFCC to enable greater access to UN programs and networks.
  - Collaborate with partnering organizations including STS-forum, the Inter-American Competitiveness Network and the World Economic Forum.

For more information about the GFCC, please visit [www.thegfcc.org](http://www.thegfcc.org).





**OPPOSITE PAGE**

**Top:** International Delegations at the 2014 GFCC Annual Meeting in Seoul Korea, co-hosted by H.E. Hyun Oh-seok Deputy Prime Minister and Minister of Strategy and Finance, Republic of Korea; Mr. Charles O. Holliday, Jr., Chairman, Bank of America and Chairman, Global Federation of Competitiveness Councils (GFCC); and the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness and President, GFCC.

**Bottom:** Dr. Eric Isaacs, Provost, University of Chicago; Mr. Jung-hyun Kim, CEO, Delight Co., Ltd.; Mr. Hee Sung Lee, President, Intel Korea Ltd.; Dr. Jorge G. Puente, former President, Asia Pacific and Canada, Pfizer, Inc.; and Ms. Gianna Sagazio, Senior Advisor to the President, The Brazilian Economic and Social Development Bank (BNDES) discuss “Advancing Sustainable Prosperity through Creating Shared Value” at the 2013 GFCC Annual meeting in Seoul, Korea.

**THIS PAGE**

**Top:** The Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness & President, GFCC; H.E. Sung Kim, Ambassador of the United States to the Republic of Korea; H.E. Hyun Oh-seok Deputy Prime Minister & Minister of Strategy and Finance, Republic of Korea; Mr. Charles O. Holliday Jr., Chairman, Bank of America & Chairman, GFCC; and Ms. Susan N. Fleishman, Executive Vice President, Worldwide Corporate Communications & Public Affairs, Warner Bros. Entertainment at the Gala Dinner during the 2013 Annual Meeting of the GFCC.

**Center Left:** Mr. Charles O. Holliday, Jr., Chairman, Bank of America & Chairman, GFCC discusses Global Economic Paradigm Shifts at the 2013 GFCC Annual Meeting in Seoul, Korea.

**Center Right:** H.E. Park Geun-hye, President of the Republic of Korea addresses the 2013 Annual Meeting of the GFCC in Seoul, Korea.

**COMPETE: POLICY IMPACT****Government Affairs**

The Council not only creates policy recommendations, but then works to communicate these recommendations to policymakers in the administration, Congress and governors. Beyond individual meetings with administration officials, Senators and Representatives, in 2013, the Council and its membership engaged the Congress via testimonies and briefings.

**2013 IN REVIEW****April 10, 2013**

The Council and Sandia National Laboratory, in conjunction with the U.S. House of Representatives Science and National Labs Caucus sponsored a briefing titled, "The Future of the United States Research Ecosystem". Council President & CEO Deborah L. Wince-Smith moderated the panel of Council Executive Committee Members Dr. Paul J. Hommert, President and Laboratories Director, Sandia National Laboratories; Dr. Pradeep Khosla, Chancellor, University of California–San Diego; and Dr. Keenan Sahin, Founder and CEO, TIAX LLC.

**July 9, 2013**

Dr. Cynthia McIntyre, Senior Vice President, Council on Competitiveness testified before the U.S. House of Representatives Committee on Small Business Subcommittee on Subcommittee on Economic Growth, Tax and Capital Access. The hearing was titled, "American Competitiveness Worldwide: Impacts on Small Businesses and Entrepreneurs" and her testimony focused on the National Digital Engineering and Manufacturing Consortium (NDEMC).

**July 10, 2013**

Council President & CEO Deborah L. Wince-Smith testified before the U.S. House of Representatives Committee on Science, Space, and Technology Subcommittee on Research and Technology. The subject of the hearing was the American Manufacturing Competitiveness Act of 2013. Ms. Wince-Smith emphasized the Council's support of manufacturing and manufacturing policy.

**2014 OUTLOOK**

With an ever-increasing momentum, the Council will continue to engage with the administration and the Congress during the 2014 election year and into the start of the 114th Congress in 2015. In addition, the Council will further strengthen its relationship with the National Governors Association and the U.S. Conference of Mayors to further the *Clarion Call* recommendations of keeping America competitive and Americans prosperous with those on the ground across the nation.



**July 10, 2013**

The Council in conjunction with the U.S. House of Representatives Caucus on Science and National Labs, sponsored a briefing titled “EXTREME COMPUTING: Why United States Industry, National Labs, and Academia Need Advanced Computing”. Council Chief Technologist, Dr. Walter Kirchner moderated the panel which included, Mr. Nick Donofrio, Retired Executive Vice President of Innovation, IBM Corporation, Ms. Dona Crawford, Associate Director, Computation, Lawrence Livermore National Laboratory.



*Top Right: The Honorable Randall M Hultgren, U.S. House of Representatives (IL-14) speaks at the Council's July 10 Hill briefing on Extreme Computing.*

*At Right: The Honorable Chaka Fattah, U.S. House of Representatives, (PA-2) speaks at a Council hosted Congressional briefing on Extreme Computing, July 10, 2013.*

COUNCIL EVENTS

# The America Competes Awards



The Council hosted an America Competes Awards Dinner in Atlanta on November 5, 2013.

The honorees were John and Mary Brock—who were honored for their contributions to public service; and D. Scott Davis, Chairman & CEO, UPS, who received the honor for corporate leadership.

How were this year's awardees selected?

The Brocks' name is synonymous with community service, not just in the Atlanta region, but across the nation and the globe. Their philanthropic service is inspiring and impactful and their significant personal commitment of millions of dollars to fund cancer research and their contributions to biomedical engineering at both Emory University and the Georgia Institute of Technology demonstrates both compassion for those in need and vision for the long term work involved in scientific research. The Brocks truly embody the Council's vision of public service leading to a more competitive and prosperous America.

Named CEO in 2008, Scott Davis led UPS in the rapid expansion of international operations and supply chain and freight, as well as becoming a leader in environmental sustainability, through a focus on improving efficiency.

Since moving its headquarters to Atlanta in 1991, UPS has been an integral part of the region's business and philanthropic communities and remains at the forefront in driving competitiveness through its clear focus on enabling commerce locally, as well as around the globe.

Dozens of sponsors make the America Competes Awards possible. The funds raised through the America Competes Awards are used to support the Council's overarching mission of enhancing U.S. productivity and competitiveness.

The generous support provided through the America Competes Awards enables the Council to do the research, engage the experts and bring our members together to develop and implement this agenda and engage policymakers.

The Council is planning its next Competes Awards dinner in New York in 2014. Honorees are James Turley, former Chairman and CEO of Ernst & Young, for corporate leadership and the Honorable Rudolph Giuliani, former Mayor of New York, for public service.



**Top:** American Competes Awards Dinner, Atlanta History Center, Atlanta, GA, November 5, 2013.

**Center Left:** Mr. D. Scott Davis, Chairman & CEO, UPS.

**Center Right:** Mr. Samuel R. Allen, Chairman & CEO, Deere & Company and Chairman, Council on Competitiveness; Mr. John Brock, Chairman & CEO, Coca-Cola Enterprise Inc.; Mrs. Mary R. Brock, Co-Owner, Atlanta Dream; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Dr. G.P. "Bud" Peterson, President, Georgia Institute of Technology.

**Bottom Right:** Dr. G.P. "Bud" Peterson, President, Georgia Institute of Technology; Mrs. Valerie Peterson; the Honorable Deborah L. Wince-Smith, President & CEO, Council on Competitiveness; Mrs. Natalie Hall; the Honorable Kwanza Hall, Councilman, City of Atlanta; Mr. Chad Evans, Executive Vice President, Council on Competitiveness.



## COUNCIL STAFF

## Employee Spotlight

The Council is excited to announce some key promotions and new faces. As always, the Council continues to work across platforms and engage in numerous projects to drive U.S. competitiveness, all of which would be impossible to achieve without a cohesive and hardworking staff.

**Gourang Wakade**

Director, Membership & Strategic Outreach



Gourang Wakade, who joined the Council on Competitiveness in 2008 is now Director of Membership and Strategic Development. Gourang oversees the messaging and outreach to current and prospective members including CEOs, university presidents, labor

leaders and national laboratory directors. Gourang also works on the Council teams responsible for the Council's Executive Committee Meeting and Chairman's Dinner, the National Competitiveness Forum and the America Competes Award.

Gourang brings a wealth of fundraising and networking experience to the Council table. He has worked on several successful fundraising campaigns for the College of Wooster, Save A Girl Child, the Trevor Project, the Washington Humane Society and the American Cancer Society.

In his previous role at the Council, Gourang was a policy director for the Energy Security, Innovation and Sustainability initiative and a special assistant to the Council's President & CEO Deborah L. Wince-Smith. He was instrumental in planning and executing the 2009 National Energy Summit & International Dialogue.

Gourang is also the policy director at the Global Federation of Competitiveness Councils, a global network of leaders from competitiveness councils around the world, created for cross-national sharing of competitiveness best practices, strategies, and successful (and not so successful) policy deployments.

Prior to joining the Council, Gourang worked at the U.S. Hydropower Council for International Development, where he managed three critical programs aimed at promoting the U.S. hydropower industry's interests in developing and rehabilitating hydro projects in Guatemala, India and Mexico.

Gourang holds a Bachelor of Arts in political science with a focus on international relations from the College of Wooster in Wooster, Ohio.

## Michael Bush

Senior Policy Director



Michael Bush is now a senior policy director. Since joining the Council in 2012, he has been an integral part of the Council's policy team, developing content and providing strategic direction for several of the Council's initiatives including, the *Competitiveness*

*Index*—the Council's flagship benchmarking publication, the National Engineering Forum, the American Energy and Manufacturing Competitiveness Partnership, and the CTO-level Technology Leadership and Strategy Initiative.

Michael has a Bachelor of Science in civil engineering from the University of Illinois at Urbana-Champaign and a masters degree in International Science and Technology Policy from the George Washington University. He has studied international economics at Fudan University in Shanghai, China.

*In his own words...*

*Discussions of competitiveness in the nation's capital often trend toward the academic—productivity in traded versus non-traded sectors, measuring exports in value-added terms while accounting for government discounts and artificially low currency, and so on. While these discussions are essential, they often obscure important elements of competitiveness, particularly the human dimension.*

*I was raised in a blue-collar family on the south side of Chicago and worked for a time in a machine shop to pay off the note on my first car. After college, I worked for an engineering firm in Chicago. Most of my clients were multinationals with manufacturing plants throughout the Midwest, so I spent my days in the towns and cities built by U.S. manufacturing. During my time as an engineer, the United States lost more manufacturing jobs than it had during the Great Depression, and the Midwest was particularly hard hit, accounting for more than one third of that job loss.*

*One of my clients was an electrical circuits plant that supplied the auto industry in Michigan. I serviced this plant for several years and developed*

*great relationships with the plant workers. When it was announced that production operations would be moved to Mexico and the Philippines, I witnessed the anxiety of veteran employees with kids in college, mortgages and car payments.*

*With this experience in mind—and too many others like it—I began volunteering at a workforce development agency in 2008, which specialized in providing unemployed, underemployed, and incumbent workers with mid-skill manufacturing job training.*

*I soon realized I wasn't going to make a significant impact working with individual clients, namely because there were few jobs in Chicago for these newly minted 21st Century manufacturing workers. I needed to invest my efforts somewhere that would have far greater reach.*

*Fast forward five years, three cities, and one masters degree and I find myself at the Council, an organization working at the scale required to create meaningful change.*

*The Council is helping to drive the initiatives with the potential to create the next generation of manufacturing jobs in the United States, such as the National Network of Manufacturing Innovation (NNMI)—a network of collaborative manufacturing research and development hubs intended to create and deploy new capabilities, products and processes in the United States.*

*The Council is one of the think tanks that incubated the idea for the NNMI and is proud to call many of its members among key partners of the Chicago-based Digital Manufacturing and Design Innovation (DMDI) Institute, and the NNMI being led by North Carolina State University; two of only three manufacturing hubs announced by the Obama Administration in two years.*

*I am thankful that the Council provides me with the opportunity to work on public policies with the potential to rebuild the industrial communities that I still call home. Numbers and graphs may define a competitive United States, but they must be considered in the context of the experiences of working Americans. It is my hope that the NNMI and other Council initiatives will eventually provide a secure path forward for Americans impacted by a changing economy and an evolving manufacturing sector.*

## Michael Anthony

Program Manager



Michael is a program manager with the policy team at the Council on Competitiveness. Prior to joining the Council in 2014, he earned his Master's degree in International Affairs from the Graduate Institute of International and Development Studies in Geneva, Switzerland.

His thesis focused on international trade and was completed under the then-current Chief Economist of the World Trade Organization. His studies also included time working at both the Secretariat of the WTO and the U.S. Mission to the UN.

Previous to pursuing his graduate degree, Michael served as a contractor with the U.S. State Department's Bureau of Democracy, Human Rights, and Labor. He received his B.A. in International Studies from American University with a focus in US foreign policy. This included three separate semesters studying at the University of Havana, Cuba; Chinese University of Hong Kong, China; and St. Petersburg State University, Russia.

## Marie Plishka

Program Manager



Marie Plishka joined the Council on Competitiveness as a program manager in 2013. She supports work under the American Energy & Manufacturing Competitiveness Partnership and the Technology, Leadership and Strategy Initiative.

Prior to the Council, Marie worked at an international economic development consulting firm in Arlington, VA. There she focused on projects that supported the regional integration efforts of the Association of Southeast Asian Nations (ASEAN) and on a project that supported the country of Laos to fulfill its obligations under international trade agreements.

Marie recently completed a Master of Science with Honours - Merit from the London School of Economics and Political Science. Her degree is in Development Management with an emphasis on economic development. She has an A.B. cum laude in International Affairs with an Italian minor from the University of Georgia.

## Zachary Schafer

### Senior Policy Director



Zachary Schafer joined the Council as a senior policy director in 2013. Zach brings experience from government, consulting, and academia to bear on several of the Council's core initiatives, including the U.S. Manufacturing Competitiveness Initiative and the American

Energy and Manufacturing Competitiveness Partnership.

Zach leads research efforts, develops thematic content, and convenes experts from industry, academia, labor, and the government community to collaboratively address critical issues impacting national economic competitiveness, technology innovation, and job creation. Zach's focus and interests lie at the intersection of the nation's energy portfolio, manufacturing sector, and innovation ecosystem.

Prior to joining the Council, Zach was as a senior consultant in Navigant Consulting's energy practice, leading the implementation of Federal energy efficiency programs for appliances and equipment. While at Navigant, Zach also supported efforts to develop energy benchmarking and disclosure policies for major municipalities, and develop new approaches to energy efficiency programs for large utility clients. Zach also served at the White House Council on Environmental Quality, where he worked on a core portfolio of national climate adaptation strategies and Federal water policy.

Zach's background in the energy and climate sector is grounded in work as a policy analyst at the Center for Energy and Environmental Policy, where

The Council would like to thank Dr. Walt Kirchner for his service as the Council's Chief Technologist in Residence and coordinator of the HPCAC. Kirchner returned full-time in 2013 to Argonne National Laboratory after his work with the Council.



his extensive research and publications focused on energy efficiency and renewable energy finance, energy resource and sustainability planning, Federal energy management, and the energy-climate-water nexus. In this capacity, Zach was instrumental in expanding the scope of the Sustainable Energy Utility model for energy services delivery.

Zach earned a Master's degree in Energy and Environmental Policy, magna cum laude, from the University of Delaware, as well as a B.A. in Economics, History, and International Relations, also from the University of Delaware. Zach is a native of both the U.S. Virgin Islands and Maryland's Eastern Shore.

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Director, Membership & Strategic Development

# About the Council

## WHO WE ARE

The Council's mission is to set an action agenda to drive U.S. competitiveness, productivity and leadership in world markets to raise the standard of living of all Americans.

The Council on Competitiveness is the only group of corporate CEOs, university presidents and labor leaders committed to ensuring the future prosperity of all Americans and enhanced U.S. competitiveness in the global economy through the creation of high-value economic activity in the United States.

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## HOW WE OPERATE

The key to U.S. prosperity in a global economy is to develop the most innovative workforce, educational system and businesses that will maintain the United States' position as the global economic leader.

The Council achieves its mission by:

- Identifying and understanding emerging challenges to competitiveness
- Generating new policy ideas and concepts to shape the competitiveness debate
- Forging public and private partnerships to drive consensus
- Galvanizing stakeholders to translate policy into action and change





**Compete.**

Council on  
Competitiveness

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Read about Council leaders, mission and more at [Compete.org](http://Compete.org).

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