# Compete





# Creating Jobs, Prosperity & Security

The Council on Competitiveness leadership launched the U.S. Manufacturing Competitiveness Initiative June 23rd at the National Press Club. **Story on page 4.** 

### Inside Spotlight

Previewing the 2010 Annual Event, page 9.

Council Hosts Global Leaders for 2nd U.S.-Brazil Innovation Summit, page 10.

Q&A with TLSI Co-Chair Ray Johnson, Senior Vice President and CTO of Lockheed Martin Corporation, page 18.

From the Competitiveness Edge

### Letter from the Leaders

## Council evolving to meet new, global economic realities, shifting focus to manufacturing sector

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Pictured on cover, from left: James H. Quigley, CEO, Deloitte Touche Tohmatsu; Shirley Ann Jackson, President, Rensselaer Polytechnic Institute; Samuel R. Allen, Chairman, Council on Competitiveness; Chairman and CEO, Deere & Company; William Hite, General President, United Association; Michael Splinter, Industry Vice Chairman, Council on Competitiveness; Chairman, President and CEO, Applied Materials, Inc.; and Deborah Wince-Smith, President & CEO, Council on Competitiveness.



Samuel R. Allen, Chairman, Council on Competitiveness; Chairman and CEO, Deere & Company



Deborah Wince-Smith, President & CEO, Council on Competitiveness

The strength of the Council on Competitiveness has always been in its capacity to produce meaningful policy recommendations by convening a broad coalition of leaders without a partisan agenda. As a result of the current economic and political climate, that ability is more important than ever to the future growth of the U.S. economy.

Overwhelming economic uncertainty for America's future is being met with bitter partisanship and painfully slow growth. The Council can provide a critical service to the country by meeting these challenges with a clear national competitiveness strategy.

The Council's new flagship initiative, the U.S. Manufacturing Competitiveness Initiative (USMCI), provides an important case study of how our work plays a central role in the American recovery. The initiative was launched at a National Press Club event in June. There, we released the first deliverable of the initiative: the findings of a *Global Manufacturing Competitiveness Index*, a survey of 400 industry executives completed in partnership with Deloitte that reinforced the importance of talent-driven innovation to global competitiveness. The *Index* is the first of many ways that the USMCI will benchmark and explore the drivers of global manufacturing competitiveness.

#### From the Competitiveness Edge

Over the next year, the USMCI will also be mapping the potential impact of implementing a national manufacturing strategy and the risks of not taking the appropriate steps to support the sector. The initiative will construct models and conduct assessments to investigate how we can prevent off-shoring and scale breakthrough technologies. Finally, the USMCI will study individual subsectors of the manufacturing industry and make specific recommendations to support them.

This initiative will continue to benefit from an aggressive outreach campaign that began by welcoming Ron Bloom, the Senior Counselor to the U.S. President for Manufacturing Policy, to the June 23rd executive committee meeting to answer questions and discuss the administration's plans for revitalizing the country's manufacturing base. Close engagement with policymakers will be among the highest priorities throughout this initiative.

Any national competitiveness strategy must also reflect an understanding of its international context. Through a series of global partnerships, the Council is gaining insight into how emerging economies are changing the ground rules for competitiveness.

The Council recently met with the Indian ambassador to the United States and cemented a partnership with key Indian business leaders. This September, the 2nd U.S.-Brazil Innovation Summit demonstrated areas for collaboration between the two largest economies in the Western Hemisphere, and created a unique network of public and private sector leaders in both nations. By understanding and engaging with developing nations, the Council is becoming an important resource on global competitiveness issues.

The fragility of the economic recovery continues to challenge America's competitive position in the global marketplace. The Council remains committed to addressing these challenges by locating the critical drivers of prosperity and educating policy makers about their impact. With the engagement of a prestigious and diverse membership, the Council is poised to directly influence the policies that will ensure America's economic strength for generations to come.

SAMUEL R. ALLEN Chairman Council on Competitiveness DEBORAH WINCE-SMITH President & CEO Council on Competitiveness

## COUNCIL ON COMPETITIVENESS BOARD OF DIRECTORS

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**Secretary and Vice President** William Bates

## How Revitalizing the U.S. Manufacturing Industry Will Spur Innovation and Prosperity

#### The U.S. Manufacturing Competitiveness Initiative (USMCI)

The Council on Competitiveness unveiled its flagship U.S. Manufacturing Competitiveness Initiative (USMCI) on June 23 in Washington, D.C. This multi-year project was born of the realization that the United States' ability to create wealth and new jobs rests upon innovative and agile manufacturing capabilities.

Council chairman Samuel Allen and other senior leadership gathered to introduce the USMCI at a National Press Club event. Joining Council leaders for the launch were Patrick Gallagher, director of the National Institute of Standards and Technology (NIST), and John Engler, president of the National Association of Manufacturers.

The press event also marked the release of the 2010 Annual Global Manufacturing Competitiveness Index, a Council and Deloitte joint venture, cataloguing the responses of more than 400 CEOs worldwide on an array of manufacturing competitiveness issues. As the USMCI moves forward, this Index will be a valuable asset to leverage, providing C-suite level insight into the global manufacturing sphere.

At the National Press Club, Council president & CEO Deborah Wince-Smith remarked, "This initiative is being created at a time when U.S. competitiveness faces intense and accelerating competition from all corners of the globe." Wince-Smith's comments underscore the surge in global manufacturing competition, and the need to bolster the U.S. manufacturing base. Though domestic manufacturing productivity remains high and America continues to lead the world in manufacturing value-added, its position of dominance in the global manufacturing arena is increasingly threatened both by emerging economies and revitalized production sectors in established economies.

To address these challenges, at a national manufacturing summit slated for late 2011, the USMCI will share with the administration, Congress, governors, private sector leaders and other key stakeholders, a realistic and comprehensive picture of the future manufacturing ecosystem, and the requisite policy recommendations to bring these goals to fruition.

The USMCI envisions a future U.S. manufacturing environment in which conventional linear innovation and production processes are supplanted by more holistic production models. New models will incorporate positive feedback loops—allowing the production process to













#### OPPOSITE PAGE

**Top, from left:** Deborah Wince-Smith, President & CEO, Council on Competitiveness; William H. Swanson, Chairman and CEO, Raytheon Company; and Robert L. Reynolds, President and CEO, Putnam Investments.

**Center, from left:** Mayo A. Shattuck III, President and CEO, Constellation Energy, and William Hite, General President, United Association.

**Bottom:** Patrick D. Gallagher, Director, National Institute of Standards and Technology, U.S. Department of Commerce.

#### THIS PAGE

Top, from left: Ken Howery, Managing Partner, Founders Fund; Lou Anna Simon, President, Michigan State University; David Vieau, President and CEO, A123 Systems; and Gene D. Block, Chancellor, University of California, Los Angeles.

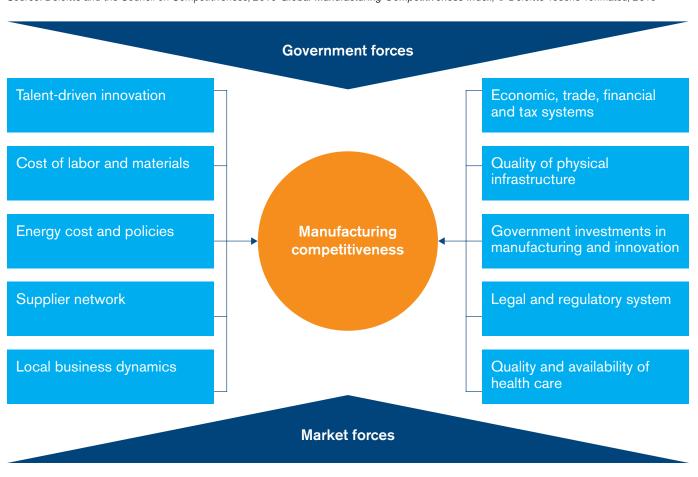
**Center, from left:** Allen L. Sessoms, President, University of the District of Columbia; John M. Engler, President & CEO, National Association of Manufacturers; and Harris Pastides, President, University of South Carolina

**Bottom:** Dominic J. Pileggi, President and CEO, Thomas & Betts Corporation, and Jean-Lou Chameau, President, California Institute of Technology.



#### Drivers of global manufacturing competitiveness

Source: Deloitte and the Council on Competitiveness, 2010 Global Manufacturing Competitiveness Index, © Deloitte Touche Tohmatsu, 2010



inform innovation processes—and will foster crossfertilization amongst innovators, production workers and others who are involved in the manufacturing process.

Greater integration of presently discreet phases in the manufacturing cycle will give rise to a robust production environment in which next generation manufacturing facilities can thrive. As the USMCI moves forward, the Council will fully conceptualize a "factory of the future." The genesis of this project will be featured prominently at the 2011 national manufacturing summit.

This next generation facility must be an advanced production platform that is energy efficient, low cost, carbon neutral, highly customizable, adaptable and able to accommodate multiple users and inputs. Through the factory of the future, the Council will catalyze a fundamental shift in the conventional production wisdom.

In the near term, the Council will continue to collaborate with labor, academia, government and private-sector partners to prepare high-priority recommendations that address the immediate needs of the U.S. manufacturing base. These initial findings will be delivered at the Council's annual meeting on December 9, 2010.

The Council feels strongly that its non-partisan reputation, coupled with strong links to industry, universities, labor and government, make it uniquely equipped to meet the manufacturing challenges facing America. The Council looks forward to strengthening the nation and advancing American competitiveness through the USMCI.

For more information about the USMCI, please contact Jack McDougle, senior vice president (jmcdougle@compete. org or 202 969 3390). ★

#### **USMCI LEADERSHIP COUNCIL**

#### Samuel R. Allen

Chairman and CEO, Deere & Company

#### William P. Hite

General President, United Association of Pipe Fitters and Plumbers

#### Susan Hockfield

President, Massachusetts Institute of Technology

#### Charles O. Holliday, Jr.

Chairman, Bank of America

#### Shirley Ann Jackson

President, Rensselaer Polytechnic Institute

#### Edward J. McElroy

CEO, ULLICO, Inc.

#### George H. Miller

Director, Lawrence Livermore National Laboratory

#### James H. Quigley

CEO, Deloitte Touche Tohmatsu

#### Michael R. Splinter

Chairman, President and CEO, Applied Materials, Inc.

#### **Deborah Wince-Smith**

President & CEO, Council on Competitiveness



#### OPPOSITE PAGE

From left: Michael R. Splinter, Industry Vice Chair, Council on Competitiveness and Applied Materials, Chairman, President & CEO; Ron Bloom, Senior Counselor to the U.S. President for Manufacturing Policy; Edward J. McElroy, Labor Vice Chair, Council on Competitiveness, and CEO, ULLICO, Inc.; and Keith Nosbusch, Chairman and Chief Executive Officer, Rockwell Automation.

#### THIS PAGE

**Top, from left:** Thomas R. Baruch, Founder and Managing Director, CMEA Capital; William R. Woodson, Chancellor, North Carolina State University; and Kenan Sahin, President and Founder, TIAX LLC.

Bottom, from left: Mark G. Yudof, President, University of California; Walter P. Havenstein, Chief Executive Officer, Science Applications International Corporation; and Tomas Diaz De La Rubia, Deputy Director for Science & Technology, Lawrence Livermore National Laboratory.





From left: Samuel R. Allen, Chairman & CEO, Deere & Company; James H. Quigley, Chief Executive Officer, Deloitte Touche Tohmatsu; Michael R. Splinter, Chairman, President & CEO, Applied Materials, Inc.; and Shirley Ann Jackson, President, Rensselaer Polytechnic Institute.

# Council President & CEO to Congress: Create Right Conditions for Innovation

#### Wince-Smith Supports Proposal to Assist Clean-Energy Manufacturers

Council on Competitiveness president & CEO Deborah Wince-Smith stressed the importance of creating the right conditions for innovation in her recent testimony before the House Subcommittee on Commerce, Trade and Consumer Protection.

Wince-Smith's testimony addressed the "Clean Energy Technology Manufacturing and Export Assistance Act," which was passed by the House and is awaiting action in the Senate. She praised the legislation because it "acknowledges the important role that the emerging clean energy industry will play in ensuring America's economic competitiveness and national security going forward."

"It is critical that the United States create the right conditions for breakthrough innovations across the manufacturing ecosystem, especially in the field of clean energy," Wince-Smith said.

The Council's new U.S. Manufacturing Competitiveness Initiative is a two-year project focused on creating a realistic strategy to revamp U.S. manufacturing into a vibrant, diversified and technologically advanced value chain.

## Council to Honor Competitiveness Leaders, Release Initial Findings of Manufacturing Initiative at December's 2010 Annual Celebration







Top left: Charles O. Holliday, Jr., chairman of Bank of America, and former chairman of DuPont.

**Top right:** Congressman Bart Gordon of Tennessee.

At left: Congressman Vernon Ehlers of Michigan.

The Council on Competitiveness will host *A Tribute to American Leaders of Competitiveness* to honor the leadership of three men who have had a profound impact on the country's ability to be competitive. The dinner will kickoff the Council's 2010 Annual Celebration, December 8-9, in Washington D.C.

The Council will recognize the accomplishments of Council chairman emeritus, Charles O. Holliday, Jr., chairman of Bank of America, and former chairman of DuPont. Holliday is among the most influential leaders in shaping America's economic competitiveness agenda. During his years at DuPont, he successfully transformed and re-engineered the company to focus on achieving sustainable and environmentally responsible growth. As chairman of the Council, Holliday led the Energy Security, Innovation and Sustainability Initiative and the Council's release of *Drive*, a comprehensive energy plan supported by a broad coalition of public- and private-sector leaders.

The Council will also honor Congressman Bart Gordon of Tennessee, chairman of the House Science and Technology Committee, and Congressman Vernon Ehlers of Michigan for their tremendous contributions to America's competitiveness agenda.

During his 13 terms in office, Gordon has been responsible for passing vital legislation to support America's competitiveness policies. As committee chairman, he authored the landmark bipartisan America COMPETES Act, which aimed to foster U.S. economic competitiveness by strengthening math and science education to ensure the U.S. workforce has the skills needed for the high-tech jobs of the future.

Since his election to Congress in 1993, Ehlers, the only research and nuclear physicist in Congress, has been a chief advocate for developing science and technology legislation to keep America competitive. During his tenure on the House Science and Technology Committee, he oversaw the writing of the nation's first major statement on science policy since 1945.

The second day of the Annual Celebration will feature the release of key initial findings and recommendations from the Council's flagship U.S. Manufacturing Competitiveness Initiative (USMCI). The presentation will highlight the USMCI mission and share the building blocks of a national manufacturing strategy slated to be delivered to private-sector leaders, the administration, Congress, governors and other key stakeholders at a national summit convened in Washington, D.C., in late 2011. This strategy envisions a vibrant, diversified and technologically advanced manufacturing sector, resulting in American jobs, economic growth and prosperity, energy sustainability, and an improved ability to meet national defense mission needs.

That afternoon, members of the USMCI steering committee will convene their second meeting and the launch of the Policy Solution Groups (PSG). The PSGs will begin addressing specific challenges within four broad drivers of manufacturing competitiveness: **Talent, Technology, Investment and Infrastructure**. During the next year, each PSG will develop recommendations and determine the highest priority solutions for impacting a vibrant manufacturing ecosystem.

For more information about the annual event or the USMCI, please contact Jack McDougle, senior vice president (jmcdougle@compete.org or 202 969 3390). ★

**COMPETE: Global** 

# Leaders from the United States and Brazil Convene in Washington for 2nd U.S. Brazil Innovation Summit

#### Two-Day Event Lays Foundation for Future of Council's Brazil Initiative

On September 20 and 21, more than 400 leaders from industry, labor and academia from the United States and Brazil convened at Georgetown University in Washington, D.C. The Council on Competitiveness and its partners—the Brazilian Competitiveness Movement (MBC) and the Brazilian Agency for Industrial Development (ABDI)—focused participants from the Western Hemisphere's two largest economies on the power of innovation-based collaboration to address five grand challenges of the 21st century.

The five panel discussions, roundtable and breakout conversations, and networking events produced an in-depth, two-day dialogue that explored solutions to these challenges. This insight, generated from all participants, provides the foundation for the next phase of the Council's U.S.-Brazil Initiative—a second set of Innovation Learning Laboratories that will occur across both nations in 2011 and 2012. The upcoming Labs will serve as strategic engagements for concrete, tangible, bilateral partnerships to elevate innovation and provide a deeper dive into the five grand challenges presented at the Summit.

In closing the Summit, Deborah Wince-Smith, president and CEO of the Council on Competitiveness; Reginaldo Arcuri, president of ABDI; and Eric Camarano, president of MBC, issued a "Call to Work"—formally pledging to continue their partnership and joint commitment to the next set of Labs—a milestone in a relationship that began with a first Memorandum of Understanding between the Council and MBC in 2005 and the 1st U.S.-Brazil Innovation Summit in 2007 in Brasília. The 1st Summit produced a "Call to Action" endorsed by Presidents George W. Bush and Luiz Inácio Lula da Silva and launched the first series of 10 Innovation Learning Laboratories that took place in 2008 and 2009.

The diversity of industry and level of seniority among both the U.S. and Brazilian delegations was indicative of the growing emphasis within each nation of a strengthened public-private engagement with the other. As the two largest and most populous economies in the Western Hemisphere, the United States and Brazil have a strong incentive to work together to bolster innovate solutions to the leading challenges that each country, and the world, faces in the 21st century. As leaders in critical industries such as agriculture and energy, the necessity for disruptive technologies and innovative breakthroughs in both nations is imperative. Simultaneously, this urgency offers particu-





larly interesting opportunities for partnership as innovators in both nations work together to develop and scale game-changing innovations around the world.

The Council, MBC and ABDI also used the closing ceremonies of the 2nd Summit to officially announce Brazil's entry into the Global Federation of Competitiveness Councils (GFCC)—a new organization that will share best practices of competitiveness councils around the globe and establish new competitiveness metrics.

For more information about the 2nd U.S.-Brazil Innovation Summit, including video of the discussions conducted, please visit Compete.org/us-brazil or contact Chad Evans, senior vice president (cevans@compete.org or 202 969 3380). ★

#### **COMPETE: Global**







#### OPPOSITE PAGE

**Top, from left:** Deborah Wince-Smith, President and CEO, Council on Competitiveness; Reginaldo Arcuri, President, Brazilian Agency for Industrial Development; and Erik Camarano, President, Brazilian Competitiveness Movement.

Center, from left: Thomas A. Shannon, Jr., U.S. Ambassador to Brazil, Embassy of the United States, Brasilia; Mauro Vieira, Ambassador of Brazil to the United States, Embassy of Brazil; Miguel Jorge, Minister of Development, Industry and Trade, Government of Brazil; Reginaldo Arcuri, President, Brazilian Agency for Industrial Development.

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Top, from left: John J. DeGioia, President, Georgetown University; Jose Augusto Fernandes, Executive Director, National Confederation of Industry Brazil; Thomas A. Shannon, Jr., U.S. Ambassador to Brazil, Embassy of the United States, Brasilia; Deborah Wince-Smith, President and CEO, Council on Competitiveness; Reginaldo Arcuri, President, Brazilian Agency for Industrial Development; and Erik Camarano, President, Brazilian Competitiveness Movement.

Center left: Ellen Gracie Northfleet, Minister of the Brazilian Supreme Court, and Reginaldo Arcuri, President, Brazilian Agency for Industrial Development.

Center right: Miguel Jorge, Minister of Development, Industry and Trade, Government of Brazil.

#### **COMPETE: Global**













Top left: James B. Steinberg, Deputy Secretary of State, U.S. Department of State.

Top right, from left: Jan F. Simek, Interim President, The University of Tennessee; James Phillips, Chairman, NanoMech; Mark Little, Senior VP and Director of GE Global Research, General Electric Company; Ricardo Felizzola, Founder and Associate of ALTUS, Teikon and HT Micron, Coordinator, CITEC-FIERGS; João Carlos Ferraz, Director, BNDES, Brazilian Development Bank; Thomas R. Baruch, Founder and Managing Director, CMEA Capital; and David Arkless, President, Global Corporate & Government Affairs, Manpower, Inc.

Center left: Luis Fernandes, President, FINEP, Research and Projects Financing.

Center right, from left: Francisco J. Sánchez, Under Secretary of Commerce for International Trade, U.S. Department of Commerce, International Trade Administration; Deborah Wince-Smith, President and CEO, Council on Competitiveness; and Welber Barral, Foreign Trade Secretary, Ministry of Development, Industry and Foreign Trade, Brazil.

Bottom left: Ambassador Miriam Sapiro, Deputy U.S. Trade Representative, Office of the United States Trade Representative.

Bottom right, from left: David L. Shuler, Managing Director, Alliance and Venture Management, CME Group; Kyle Ryland, Managing Director, Silver Lake Sumeru; Carlos Seara da Costa Pinto, CEO, Bematech S/A; João Alziro Herz da Jornada, President, Inmetro; Chad Evans, Senior Vice President, Council on Competitiveness; Patrick D. Gallagher, Director, National Institute of Standards and Technology, U.S. Department of Commerce; and Mindel De La Torre, Chief, International Bureau, Federal Communications Commission; Mariano de Beer, Director Geral, Telefônica do Brasil; Cristiano Amon, Senior Vice President of Product Management, Qualcomm CDMA Technologies, QUALCOMM, Inc.

#### **COMPETE:** Global







## Five Key Challenges of the 21st Century

- How will the United States and Brazil meet global demand for energy, which will increase by nearly 50 percent in 20 years, while balancing the need for sustainable growth and use of other critical resources?
- How can two of the world's leading agricultural producers feed the world—which faces a need to double global food production in 50 years—and continue to innovate at the frontier of the biosciences?
- How do leaders in both nations foster creativity and innovation in a world in which, by 2050, more than two-thirds of the population will live in cities?
- What are the critical tools and infrastructures needed for 21st century innovation—from transportation networks to broadband and the "cloud" and how do both nations best equip themselves?
- What does manufacturing look like in the 21st century, and how can the United States and Brazil lead in the development and deployment of the most innovative mix of manufacturing and services that will create value for society?

**Top, from left:** William R. Woodson, Chancellor, North Carolina State University; Telma Sinicio, Vice President, Global Innovation, Natura Cosmeticos; Harold Schmitz, Chief Science Officer, Mars, Inc; Lou Anna K. Simon, President, Michigan State University; Kepler Euclides Filho, Executive Director, Embrapa; Uma Chowdhry, Chief Science and Technology Officer, Emeritus, DuPont; and Samuel R. Allen, Chairman and CEO, Deere & Company.

Center, from left: Frank Trocki, Chancellor, Montana State University-Northern; Hermann Ponte e Silva, Vice President for Organization and Human Resources, Embraer; Lee McIntire, Chairman and Chief Executive Officer, CH2M HILL; Eduardo da Costa, Director, 2014 Biz Project, FINEP; Paul Mascarenas, Vice President, Engineering, Global Product Development, Ford Motor Company; Meyer S. "Sandy" Frucher, Vice Chairman, The NASDAQ OMX Group; Michael M. Crow, President, Arizona State University; and James K. Clifton, CEO, Gallup Inc.

Bottom, from left: James Pessoa, CEO, Vale Soluções em Energia; Billy M. Glover, Managing Director, Environmental Strategy Boeing Commercial Airplanes, The Boeing Company; Djamil de Holanda Barbosa, Technology Advisor, Electrobrás S.A.; Alexander "Andy" A. Karsner, Executive Chairman, Manifest Energy; Carlos Tadeu da Costa Fraga, Research & Development Center General Director, Petrobras, Petroleo Brasileiro S.A.; Ray O. Johnson, Senior Vice President and Chief Technology Officer, Lockheed Martin Corporation; James B. Milliken, President, University of Nebraska; and Alan Shaw, President and CEO, Codexis, Inc.

**COMPETE: Global** 

# Council Creates Global Network to Identify Drivers of Competitiveness

#### New International Partnerships to Promote Shared Growth and Prosperity

Through a new partnership with India and the founding of a new organization, the Global Federation of Competitiveness Councils (GFCC), the Council on Competitiveness is building an unprecedented network of global public and private sector leaders to address international competitiveness issues. The Council's global initiatives are providing new insights into the drivers of global competitiveness and are creating opportunities for Council members to network with government officials and influential business executives from emerging economies.

India is the third fastest growing foreign investor in the United States, and earlier this year the Council recognized India's growing influence on the global economy through forging a partnership with the Federation of Indian Chambers of Commerce and Industry (FICCI). Council president & CEO Deborah Wince-Smith was joined by FICCI Secretary General Amit Mitra and Chairman Rajan Bharti Mittal for the signing of a Memorandum of Understanding (MOU).

The MOU recognized "the mutual interest and benefits in strengthening cooperation within a framework of friendship," as well as a commitment to "promote cooperation in the fields of innovation, entrepreneurship and competitiveness."

The event marked the beginning of a partnership between FICCI and the Council intended to boost the strategic relationship between India and the United States by bringing together members of the public and private sectors to enhance the innovation-capacity and competitiveness of both countries. The signing was witnessed by a high-level group of government officials and private sector leaders from both nations, including Her Excellency Meera Shankar, Ambassador of India to the United States, and Geoff Pyatt, Principal Deputy Assistant Secretary for Central and South Asian Affairs at the U.S. Department of State.

The U.S. Council is also one of seven founding members and the secretariat of the GFCC. Council chairman emeritus Charles O. Holliday, Jr., chairman of Bank of America, will serve as GFCC chairman, and Deborah Wince-Smith will be the first GFCC president. Organizations from more than 30 countries have expressed an interest in joining the organization to share best practices and identify new strategies for measuring competitiveness.



From left: Deborah Wince-Smith, President & CEO, Council on Competitiveness; Rajan Bharti Mittal, Vice Chairman and Managing Director of Bharti Group, President of FICCI; Meera Shankar, Ambassador of India to the United States; and Amit Mitra, Secretary General of FICCI.

The GFCC will conduct its first annual meeting on December 10th in Washington, D.C., and release the first ever statement of shared principles for accelerating global competitiveness and prosperity. This announcement will address issues such as intellectual property and fighting protectionist reactions to the global economic downturn.

The Council recognizes that the fundamental drivers of national competitiveness are being knitted together in networks that now underpin global economic growth. Innovation, sustainability and resilience—once the foundations for national competitiveness advantage—are now global platforms for prosperity. By creating an unique network of new global partnerships, the member councils are providing an opportunity to gain valuable contacts in the international business community and affect change in the global competitiveness policy.

For more information about the GFCC, please contact William Bates, vice president (bbates@compete.org or 202 969 3395). ★

**COMPETE: Technology** 

# Innovation Strategy to Address Global Grand Challenges through U.S. Leadership

#### Council's TLSI Continues Path-Breaking Dialogue Series

The Technology Leadership and Strategy Initiative (TLSI) continues to play a key role in the Council on Competitiveness' integrated approach to developing a comprehensive competitiveness agenda. The TLSI convenes leaders from America's premier companies, universities and laboratories both to understand technology drivers and strategies in the 21st century, and to establish a new paradigm for collaboration between the public and private sectors. The initiative focuses on the power of innovation and how the United States can capture value, such as new jobs and new industries, from the nation's total investments in technology.

On June 24, Council members convened in Washington, D.C., for TLSI Dialogue 3, "Energizing Commercialization and Building the 21st Century Public-Private Collaboratory to Drive Strategic Technologies." Council members discussed how to strengthen public-private partnerships that underpin the research, development and commercialization of strategic technologies. Such partnerships support national security, establish new companies, generate new products, drive economic growth and create high-value jobs.

Samuel Allen, the chairman and president of Deere & Company and chairman of the Council, kicked off Dialogue 3 alongside TLSI co-chairs Ray Johnson, senior vice president and chief technology officer at Lockheed Martin; Mark Little, senior vice president and director of global research at the General Electric Company; Klaus Hoehn, vice president of advanced technology and engineering at Deere & Company; and Deborah Wince-Smith, president & CEO of the Council.

Dialogue 3 brought forth new insights around commercializing innovation and more effectively leveraging the talent in the nation's universities, laboratories and companies. Attendees discussed policy barriers and potential solutions that would support greater innovation, including issues related to intellectual property, export controls, tax laws and talent.

"The TLSI offers great promise to move us forward," Johnson said. "We must commit to implementing the changes we've been discussing, because what the TLSI truly means is, No. 1, creating American jobs in a resurgent economy, and No. 2, solving the world's health, energy, security and environmental challenges. I sense that everybody around the table understands that and looks forward to contributing."





**Top, from left:** Brett B. Lambert, Director of Industrial Policy, Office of the Assistant Secretary of Defense for Acquisition, Department of Defense; Zachary J. Lemnios, Director, Defense Research & Engineering, Department of Defense; and David Kappos, Under Secretary of Commerce for Intellectual Property; Director of the United States Patent and Trademark Office, Department of Commerce.

Bottom, from left: Mark Little, Senior Vice President and Director of Global Research, General Electric Company; Samuel R. Allen, Chairman, Council on Competitiveness, and Chairman and CEO, Deere & Company; Ray Johnson, Senior Vice President and CTO, Lockheed Martin Corporation; and Deborah Wince-Smith, President & CEO, Council on Competitiveness.

#### **COMPETE: Technology**







"This initiative can help us create a more favorable policy environment for commercialization, encourage more collaboration in our federal labs and universities, and help the public and private officials to see clearly the value of innovation and to prioritize it accordingly," Little added.

Coming out of Dialogue 3, the TLSI has formed four working groups—each tasked with developing an action plan for the private and public sectors—to bolster technology innovation in the United States.

 The Accelerating Innovation Working Group aims to improve the movement of ideas from laboratory to market.

- The Regulation and Policy Working Group aims to establish more coherent federal laws and regulations that make commercialization less expensive, better incentivized and more strategic.
- The Talent Working Group aims to ensure that the United States develop, attract and retain world class scientific and technical talent.
- The **Innovation Outreach Working Group** aims to "tell the innovation story" more effectively to key audiences, particularly policymakers, students and the American public.

During the course of the past couple of months, each TLSI Working Group has held a series of virtual meetings

#### **COMPETE: Technology**





and conference calls, preparing input for TLSI Dialogue 4, which will be held November 5 in Suffolk, Va., at the Lockheed Martin Center for Innovation.

The major thrust of Dialogue 4, which occurred in early November, was the vetting and prioritization of first-cut recommendations from the TLSI Working Groups as a substantive contribution to the U.S. Manufacturing and Competitiveness Initiative (USMCI). TLSI co-chairs Johnson, Little and Hoehn are leading the technology arm of the USMCI—with the TLSI serving as a "think tank" to one of the Council's core 2011 initiatives.

For more information about the TLSI, contact Chad Evans, senior vice president (cevans@compete.org or 202 969 3380). ★

#### OPPOSITE PAGE

Top, from left: Klaus Hoehn, Vice President, Advanced Technology and Engineering, Deere & Company; C. Wm. Booher, Jr., Executive Vice President and COO, Council on Competitiveness; Vint Cerf, Vice President and Chief Internet Evangelist, Google Inc.; Mehmood Khan, Senior Vice President and Chief Scientific Officer, PepsiCo.; Deborah Wince-Smith, President and CEO, Council on Competitiveness; Thomas Baruch, Founder and Managing Director, Energy and Materials, CMEA Capital; Chad Evans, Senior Vice President, Council on Competitiveness; Mark Little, Senior Vice President and Director of GE Global Research, General Electric Company; and Pradeep K. Khosla, Dean, College of Engineering, Carnegie Mellon.

Center left, from left: Thomas B. Ballard, Director of Partnerships, Oak Ridge National Laboratory; Michael E. Kassner, Director Office of Naval Research; and Arun Majumdar, Director, ARPA-E, Department of Energy.

**Center right, from left:** Montgomery Alger, Vice President and Chief Technology Officer, Air Products, and Klaus Hoehn, Vice President, Advanced Technology and Engineering, Deere & Company.

#### THIS PAGE

**Top:** TLSI Dialogue Four, hosted by Ray Johnson, Senior Vice President and Chief Technology Officer, Lockheed Martin Corporation, at The Lighthouse –The Lockheed Martin Center for Innovation.

**Top, from left:** Thomas Cellucci, Chief Commercialization Officer, Department of Homeland Security, and Nancy Conrad, Chairman, Conrad Foundation.

**COMPETE: Technology** 

# Q&A with TLSI Co-Chair Ray Johnson, Senior Vice President and CTO of Lockheed Martin Corporation

As senior vice president of Lockheed Martin Corporation and co-chair of the Technology Leadership and Strategy Initiative (TLSI), Ray Johnson continues to play a critical role in the Council's effort to maintain America's competitive advantage in innovation. Johnson recently shared his insights on the Council's work and how it can directly impact the U.S. recovery.

In the two years since the Council launched the TLSI under your leadership, with Mark Little of General Electric Company and Klaus Hoehn of Deere & Company, how have the challenges to America's technology leadership evolved? What opportunities do you see for the future of the U.S. technology sector?

Although the United States is the leader in many technical areas, international technology development is increasing, and the leveling of technical ideas globally increases the rate of closure.

The opportunity presented by this situation is global partnering. Most of the world's most challenging problems require interdisciplinary solutions. Collaboration on a global scale will enable innovative solutions to these problems.

The Council on Competitiveness is putting a stronger emphasis on developing global partnerships, engaging countries like Brazil and India. Why is this an important step for U.S. competitiveness?

Today's increasingly complex global challenges require not only innovative, but also affordable solutions. The United States, and other developed nations, now face resource challenges, and can learn from the innovative spirit that is prevalent in countries like India and Brazil.

In working with India, we have learned that innovation depends on good ideas as much as on resources. In fact, true innovation often occurs when resources are the most limited.

A win-win situation can be created by creating partnerships that bring the synergy of the experience with successful technology commercialization from the developed economies and the innovation and affordability from emerging economies.



You've often stressed the importance of creating a culture of innovation. In what ways can the Council help cultivate that culture in America?

Innovation is supported, not managed. We think of invention as the creation of the ideas, and innovation is the application of the ideas to products and services.

Successful product or service innovation requires more than just technology innovation, it requires business innovation. In fact, technology innovation is often the easiest part of the process. We have developed a concept called the Innovation Readiness Levels (IRLs), which are a measure of our readiness in all components of the business model, such as finance, business development, and legal. The IRLs will ensure that this holistic approach to business is used as we expand into adjacent and horizon global security markets. We are developing IRLs now in pilot programs, and will expand their use next year.

The Technology, Leadership, and Strategy Initiative represents an excellent opportunity for these diverse groups to develop their own IRL concepts and apply them to Council projects. Other Council initiatives can also benefit from the IRL concept.

**COMPETE: Regional** 

# Council Recognizes Leadership as Key Factor to Regional Development

#### Collaborate sets forth an agenda for regional prosperity

A Council report on regional economic development, released earlier this summer, identified effective leadership as the cornerstone of regional economic growth, job creation and shared prosperity.

The report, *Collabo*rate: Leading Regional Innovation Clusters, was commissioned by the Economic



Development Agency at the U.S. Department of Commerce in order to examine the key ingredients for successful regional development.

Collaborate asks: "Why are some regions more successful than others in global competition?" The problem is rarely that the less successful regions lack sufficient assets. Instead, these regions seem to lack the ability to think, plan and act regionally.

"While there are many barriers to acting regionally in the United States, first among them is that economic regions and political jurisdictions are not coterminous. As a consequence, making effective decisions on a regional basis, regions acting like regions, is neither smooth nor orderly," the report says.

Effective regional leadership leverages regional assets and facilitates collaboration within the region. The ability to link innovation assets—people, institutions, capital and infrastructure—is decisive in generating robust, localized ecosystems that turbo-charge a region's economy. Acting regionally means proceeding with a strategy that is focused on the long range use of assets to enhance global competitiveness.

*Collaborate* provides a new business model for innovationled regional economic development, using case studies and research to show how a region can turn a regional competitive disadvantage into a regional collaborative advantage.

For more information at the Regional Innovation Initiative, please contact Samuel Leiken, vice president, at sleiken@compete.org or 202 969 3394. ★

#### A View from a Summer Intern: Tanu Kumar



Tanu Kumar is a Junior at Bowdoin College majoring in government and economics.

At the end of my internship, Deborah (Wince-Smith) asked me where I see myself in ten years. I didn't have an answer. I can barely imagine what I will be doing a year from now, let alone a decade.

As I reflect on what I have learned at the Council, however, I can think of a few things that I want to be true about my life when

I am 29. First of all, I want to be passionate about whatever it is that I am doing. Every single person that

I have met here this summer is committed to everything he or she is doing, whether it is ensuring that the binders for a meeting are perfect or brainstorming ideas to sharpen the United States' manufacturing competitiveness. I have found this dedication inspiring, and I now see that it is the only way to work.

Furthermore, I want my work to have an impact on the world that we live in. I have seen that at the heart of the Council's mission lies an effort to create visible change in government policy, and this is the exciting goal that I see every member of the team striving for. All I hope is that whatever line of work I find myself in, that it has a similarly tangible purpose that it reaches for.



1500 K Street, NW, Suite 850 Washington D.C. 20005 T 202 682 4292 Compete.org

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#### Mark Your Calender

The Council on Competitiveness Annual Dinner Event will be December 8-9, 2010.

#### For More Information

Please contact Betsy Thurston, vice president for strategic development, at bthurston@compete.org or 202 969 3392.