

Compete Connect

October 2024 Edition

From the CEO's Desk



Deborah L. Wince-Smith President and CEO Council on Competitiveness Dear Council on Competitiveness Community:

As we celebrate Halloween, we are *frightfully* close_to the Council's premier event of the year, the annual Gala Dinner and 2024 National Competitiveness Forum (NCF) — just a little over a month away on December 2 and 3 at the Willard InterContinental in Washington D.C.

Now is the time to register for this exclusive event. We are also actively seeking sponsorships for the NCF, which is an important source in supporting the Council's mission and ambitious agenda. Please email Council EVP and COO <u>Chad Evans</u> to register and to take advantage of the <u>generous sponsorship benefits</u> available.

The 2024 NCF's agenda is shaping up nicely. We will unveil our next, major innovation "call to action" for the incoming administration and Congress. The NCF will feature distinguished leaders and innovators discussing a range of vital topics — from enhancing the agility and resilience of our industrial base, to strengthening our national laboratory capabilities, to optimizing the role of higher education as a pillar of U.S. competitiveness. Key discussions will explore the future of place-making innovation, the potential of the bioeconomy to transform U.S. competitiveness, and the urgency of leading the world in AI and quantum sciences, technologies, and

innovations — all critical topics at the heart of U.S. productivity and inclusive prosperity.

Throughout the NCF, you will hear insights from a diverse range of prominent figures from business, academia, labor, national laboratories, and government charting the course of U.S. competitiveness – starting with the day's major, morning keynote from the Director of the National Science Foundation Sethuraman "Panch" Panchanathan.

In addition to preparing for the NCF, the Council has been highly engaged in other important work throughout October. Chad Evans and I recently represented the Council and our sister organization, the Global Federation of Competitiveness Councils (GFCC), at the Science and Technology in Society (STS) *forum* in Kyoto, where I spoke on the future of higher education in the face of generative AI and evolving workforce needs, and chaired a session on the future of women in STEM

disciplines. Chad also represented the Council at the 11th Annual Wyoming Global Technology Summit alongside University of Wyoming President and National Commissioner Ed Seidel, advocating for place-making innovation — and highlighting the Council's "Competitiveness Conversations Across America" series — to broaden participation in the innovation economy.

Last night, I had the pleasure of hosting a major milestone for the Council: the 15th Anniversary Dinner for the Technology Leadership & Strategy Initiative (TLSI). I would also like to thank Lockheed Martin CTO Steve Walker for hosting today the

30th consecutive TLSI Dialogue at its Global Vision Center. TLSI is one of the longest-running Council initiatives – and its agenda to make the business case for investing in the talent, technology, and infrastructure necessary for innovation resonates as much today as it did at its launch in 2009. We were honored to welcome to this special Dialogue Dr. Arati Prabhakar, Assistant to the President for Science and Technology and Director, Office of Science & Technology Policy, The White House.

Looking ahead to November, in addition to preparing for the NCF, the Council on Competitiveness – including a terrific slate of members – will participate in the GFCC's 2024 annual meeting and Global Innovation Summit, taking place on the campus of Queen's University Belfast, November 11-14, preceded by a special place-making innovation study trip to Aston University, Birmingham, UK.

Thank you for your continued support as we move into a significant season for the Council and the nation. With the upcoming elections, gathering as a community laser-focused on what matters most for the United States is more important than ever – so please register and plan to be with us in Washington, DC, December 2-3 for our 2024 National Competitiveness Forum.

Wishing you a Happy Halloween!

Sincerely,

Deborah Wince-Smith President & CEO Council on Competitiveness

Council News



2024 Dinner & National Competitiveness Forum

December 2–3, 2024 The Willard Washington, D.C.

Join the Council on Competitiveness for the 2024 Gala Dinner on December 2 and National Competitiveness Forum on December 3 at the Willard InterContinental in Washington, DC. To register or <u>sponsor</u>, please contact Council EVP & COO Chad Evans at <u>cevans@compete.org</u>.



Council News

The Honorable Deborah Wince-Smith, Council President and CEO, Helped Lead the "Shaping the Future of Higher Education" Panel at the Science and Technology in Society (STS) *forum*



Left to right: Dr. Jacquelien Scherpen, Rector Magnificus, University of Groningen; The Hon. Deborah Wince-Smith, President & CEO, Council on Competitiveness; and Dr. John O'Reilly, Former President, Khalifa University

The Hon. Deborah Wince-Smith traveled to Kyoto, Japan, and helped lead the "Shaping the Future of Higher Education" panel on October 7 at the Science and Technology in Society (STS) *forum*, attended by 1,500 leaders from around the globe. The panel explored key issues facing innovation, including the unpredictable nature of scientific discovery and whether current ecosystems are equipped to respond to change; the evolving roles of government, philanthropy, and industry in funding basic research; and the impact of geopolitical upheaval and concerns over research security on international collaboration. <u>Read more about the session and the STS forum here.</u>



At the 2024 Wyoming Global Tech Summit, Mr. Chad Evans, Executive Vice President and Chief Operating Officer of the Council on Competitiveness, joined Dr. Ed Seidel, President, University of Wyoming, in a wide-ranging conversation linking local, state, regional, and national efforts to transform communities through the power of innovation. Evans stressed the urgent demographic and geographic imperatives facing the United States at every level: more people and more places need to be involved in the innovation economy to secure long-term prosperity. He shared the confluence of policy development, actions on the ground, and realization within the leadership of the Council on Competitiveness and its National Commission on Innovation and Competitiveness Frontiers that have come together to develop and support the launch of the Council's <u>"Competitiveness Conversations Across America"</u> series. <u>Read more about the Wyoming Global Technology Summit</u> <u>here</u>.

Council Community News

University of Pittsburgh Chancellor Joan Gabel and Carnegie Mellon University President Farnam Jahanian Forge Historic AI Partnership with NVIDIA



Photo Credit: Wikimedia Commons

On October 14, 2024, University of Pittsburgh Chancellor and Council on Competitiveness Academic Vice-chair Joan Gabel and Carnegie Mellon University President Farnam Jahanian celebrated a historic milestone for Pittsburgh by signing a memorandum of understanding with NVIDIA at the AI Horizons Pittsburgh summit. This collaboration solidifies Pittsburgh's role as a global leader in human-first, human-centric AI innovation. Chancellor Gabel emphasized the city's growing reputation in AI and the strength of its academic institutions: "I want to express our pride of collaboration with NVIDIA, as well as our pride in our city and with our neighbor and our friends at Carnegie Mellon University, on what is truly a historic, new legacy-building day." President Jahanian echoed this sentiment, marking the moment as a significant step in fostering innovation in both healthcare and education. <u>Read more here</u>.

Council Leaders Dr. Santa Ono, President of the University of Michigan, and Dr. Sally Morton, EVP of the Knowledge Enterprise at Arizona State University, Elected To National Academy of Medicine



The National Academy of Medicine has elected to its ranks Dr. Santa Ono, President of the University of Michigan and National Commissioner, and Dr. Sally Morton, Executive Vice President of Knowledge Enterprise at Arizona State University, National Commissioner. Election is a prestigious honor underscoring their significant contributions to medical sciences, healthcare, and public health – with President Ono recognized for his impact on science and education and his commitment to health equity, and Dr. Morton honored for her exceptional leadership in statistics, health policy, and research, particularly in patient-centered comparative effectiveness research. <u>Read more here.</u>

2024 Florida Inventors Hall of Fame Inducts Dr. Sylvia Wilson Thomas for Pioneering Bio and Nano Tech Innovations



Photo Credit: University of South Florida

The Florida Investors Hall of Fame has inducted Dr. Sylvia Wilson Thomas, University of South Florida's Vice President for Research & Innovation and Professor of Electrical Engineering, for her groundbreaking work in bio and nano electronic device integration. Holding 13 U.S. patents, Dr. Thomas has advanced research in innovative membrane and material systems, supporting technologies that improve lives and strengthen the nation's innovation landscape. "The (University of South Florida's) innovation ecosystem has expanded the breadth of my research and deepened my career-long commitment to creating and championing technologies that make a positive impact on society," said Dr. Thomas. <u>Read more here.</u>



President Jim Clements to Continue Pathbreaking Work at Clemson University

At its Fall 2024 Quarterly Meeting, Clemson University's Board of Trustees approved a five-year contract extension for Clemson University President and Council Executive Committee Member Jim Clements, recognizing his exceptional leadership over the past decade. Since assuming the role in 2013, President Clements has guided the university to record growth in admissions, research, fundraising, and national academic awards. Under his leadership, Clemson was classified as an R1, its research expenditure nearly doubled from \$152 million to \$287 million. and invested over \$2.6 billion in new facilities. Reflecting on his tenure, President Clements said, "Our incredible record-breaking success as a University over the past ten-plus years is because of the amazing people here at Clemson. The value of the Tiger Paw has never been higher, and I know the best is yet to come." Read more here.

Purdue and Texas A&M to Pioneer Space Resilience through US Space Force Partnership

Under the U.S. Space Force's Space Strategic Technology Institute (SSTI), Purdue University and Texas A&M have joined forces to drive cutting-edge research for inspace operations. This initiative — featuring partners from academia, government, and industry — focuses on advancing technology for Space Access, Mobility, and Logistics (SAML) to benefit both space and Earth. Aligned with the In-Space Servicing, Assembly, and Manufacturing (ISAM) National Strategy, this project will prioritize technologies in spaceflight experimentation, signal transmission, energy systems, and space transportation. <u>Read more here</u>.

Dr. Albert P. Pisano Leads UC San Diego's New Fusion Engineering Institute

University of California San Diego's Jacobs School of Engineering has launched the Fusion Engineering Institute, led by Dr. Albert P. Pisano,



Dean of the Jacobs School and a member of The Council's National Commission Working Group on the Future of Technology. The institute aims to address the critical engineering challenges needed to make fusion energy safe, scalable, and affordable. Dr. Pisano notes, "When it comes to fusion, it's engineering time; and we are ready to collaborate to get the work done." <u>Read more here</u>.

The Council's Academic Vice-chair Chancellor Joan Gabel to Chair Fulbright Scholar Advisory Board



University of Pittsburgh Chancellor Joan Gabel has been appointed chair of the Fulbright Scholar Advisory Board (CIES). After three years as a member of the CIES, Chancellor Gabel will focus her leadership tenure on enhancing the Fulbright Scholar Program, that promotes international education and cultural exchange. In accepting the role, Chancellor Gabel, a Fulbright scholar in 2018, emphasized her commitment to fostering opportunities for future generations. The Fulbright Program was established in 1946 and has facilitated the exchange of ideas for nearly 400.000 participants worldwide. Read more here.

Other News and Updates

NSF Director Sethuraman Panchanathan Inducted into National Academy of Engineering



The National Academy of Engineering (NAE) has inducted to its membership the National Science Foundation (NSF) Director, Dr. Sethuraman "Panch" Panchanathan. In the NAE's recognition of Dr. Panchanathan, it notes his outstanding leadership and innovative contributions to multimedia computing for assistive and rehabilitative applications. <u>Read more here.</u>

Biden Administration Builds off CHIPS & Science Act by Issuing Groundbreaking National Security Memorandum on AI

On October 24, President Biden issued the first National Security Memorandum (NSM) on Artificial Intelligence (AI), outlining a comprehensive strategy to position the U.S. as a global leader in the safe, secure, and democratic use of AI for national security. The NSM aims to drive AI innovation while safeguarding human rights, emphasizing the importance of trustworthy AI systems that reflect democratic values. The memorandum builds on the CHIPS & Science Act to secure advanced semiconductor supply chains, and it works to prevent economic and technological espionage. Internationally, the NSM advances the Biden Administration's recent work on responsible AI governance, building on the U.S.-led Political Declaration on military AI, the first UN resolution on AI ethics, and a new International Code of Conduct developed with G7 allies. Read more here.

National Academies Report Calls for Comprehensive U.S. Strategy to Attract and Retain Global STEM Talent Amid Rising Competition

A new National Academies report urges the United States to adopt a coordinated strategy for attracting and retaining global STEM talent, noting that foreign-born professionals are essential for innovation, competitiveness, and national security. As global competition grows and immigration policies become complex, the United States must remain an appealing destination by streamlining pathways for foreign-born STEM graduates, enhancing transparency in security measures, and avoiding policies that unfairly target researchers based on nationality. The report highlights the importance of developing domestic STEM skills from K-12 onward and fostering partnerships with allied nations to bolster a robust STEM ecosystem. Read more here.

NIST Awards \$15 Million for Center of Excellence to Strengthen U.S. Global Leadership in Emerging Technologies

The U.S. Department of Commerce's National Institute of Standards and Technology (NIST) has awarded \$15 million to establish a Center of Excellence aimed at enhancing U.S. involvement in international standardization for critical and emerging technologies (CETs) like AI, quantum technology, and biotechnology. The center will foster private-sector participation, build workforce capacity, and accelerate the development of industry-driven standards. The initiative will align with the U.S. Government's National Standards Strategy for CETs and support long-term international cooperation in technology standardization. <u>Read more here.</u>

Hyperscalers Invest in Nuclear Power to Meet Growing Energy Needs



Photo Credit: Unite.Al

As energy demands surge with the rapid growth of cloud infrastructure and digital services, hyperscale companies are increasingly turning to nuclear power to meet their needs sustainably. Amazon, for example, has signed multiple agreements to develop Small Modular Reactors (SMRs) with partners like Energy Northwest in Washington and Dominion Energy in Virginia. These SMRs, which have a compact design and quicker build times compared to traditional reactors, are poised to deliver substantial power capacity—up to 960 MW in Washington alone—sufficient to power hundreds of thousands of homes. This movement underscores the pivotal role hyperscalers play in advancing carbon-free energy. Nuclear energy offers a reliable, scalable solution with a minimal carbon footprint, supporting both corporate net-zero targets and broader carbon-reduction efforts. As the demand for digital services grows, nuclear energy is emerging as an integral part of hyperscalers' strategies to secure scalable, sustainable energy. Read more here.

Council Insights

Technology Giants Embrace Nuclear Power to Fuel Data Centers. Presented in Partnership with Keybridge Research

Data centers are helping drive U.S. power demand

Projected change in power demand by sector, 2022-2030

3.5%



Source: Goldman Sachs Research, U.S. Energy Information Administration.



After years of largely flat electricity consumption, there are growing signs that U.S. power demand is once again starting to tick up. Rapid AI deployment, new and larger data centers, efforts to expand domestic manufacturing, and a push toward electrification are all major factors driving this trend.

In particular, the expansion of power-hungry data centers is placing pressure on the tech industry to find reliable sources of power supply without spiking GHG emissions. In response, there is a growing resurgence in interest in nuclear power, using both old and new technologies. Recently, Microsoft and Amazon struck deals to buy large amounts of power from legacy nuclear plant, and this October, Amazon and Google announced plans to invest in small modular reactor (SMR) projects.

While there are not yet any operating SMRs in the U.S. and there are questions about the feasibility of the technology from a cost perspective, the Biden Administration has made domestic deployment of SMRs a policy priority, dedicating nearly \$1 billion from the Bipartisan Infrastructure Law to accelerate deployment. Tech companies are uniquely positioned to be a powerful partner in achieving this policy goal. The concentrated and intense energy demands from data centers, and tech giants' willingness to pay above-market prices for 24/7, carbon free energy, could be the boost the industry needs to test, de-risk, and deploy SMR nuclear technology.

Joining the Council Community



Dr. JoAnne Hewett Director Brookhaven National Lab

Dr. Hewett will join the Council as a National Commissioner for the National Commission on Innovation and Competitiveness Frontiers



Mr. Jim Stutelberg CEO Primient

Mr. Stutelberg will join the Council as a Council Member and a National Commissioner for the National Commission on Innovation and Competitiveness Frontiers.



Dr. Rajeeb Hazra

President & Chief Executive Officer Quantinuum

Dr. Hazra will join the Council as a Member.



Dr. Todd Saliman President University of Colorado

Mr. Saliman will join the Council as a Member.

International

The Council's sister organization, the <u>Global Federation of Competitiveness</u> <u>Councils</u> (GFCC), continues its build-up to the 2024 Global Innovation Summit (GIS) that will take place November 11-15 on the campus of Queen's University Belfast. If you would like to learn more and consider joining the Council on Competitiveness delegation to the GFCC, contact <u>Chad Evans</u>.



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