

Compete Connect

May 2022 Edition

From the CEO's Desk



Deborah L. Wince-Smith
President and CEO,
Council on Competitiveness

As we head toward Memorial Day and the unofficial start of summer, we should reflect on the significant sacrifices made by many Americans to support our great democracy – especially as events around the world demonstrate all too clearly that democracy is “...like the experience of life itself – always changing...sometimes turbulent...having been tested in adversity.” (President James Earl Carter, Jr.)

The United States today faces challenges, tests – at home and in the global arena. Coupled with the convergence of technologies at a pace never before seen, the United States also confronts a near-peer, strategic and economic competitor – but one which views democracy and security through a very different lens. In light of these multi-front challenges, the Council is gearing for an aggressive and extremely active second half of 2022, with activities and efforts aimed at helping all Americans face and overcome new obstacles, opening fresh opportunities for a more prosperous and secure future.

The Council's flagship “[National Commission on Innovation and Competitiveness Frontiers](#)” will kickstart a second phase of its mission to define and shape America's innovation agenda for a new economy. We will launch on June 21st-22nd with the “[Mountain West Innovation Summit](#)” – a chance for our Commission, members, and other innovation stakeholders to come together in one of America's most transformative regions to frame the Commission's focus on the future of: sustainable growth; scaling and deploying exponential technologies; place-based innovation; and work and the workforce.

I STRONGLY ENCOURAGE YOU – AND COLLEAGUES – TO JOIN US ON JUNE 21st-22nd AT THE UNIVERSITY OF WYOMING AND SHAPE OUR NATIONAL COMMISSION AGENDA FOR THE COMING YEAR.

REGISTER ONLINE NOW

In addition, the Council – while maintaining highly productive virtual meetings across key programs – is increasingly returning to in-person meetings. The Technology Leadership and Strategy Initiative (TLSI) was first out of the gates – with co-chairs and the Council hosting on May 5th an in-person Spring Dialogue for our chief technology and science officers across industry, academia, and the national laboratories.

And as we pivot toward the second half of the year, expect two things: (1) more in-person engagement in DC and around the country; and (2) change is the only constant.

Americans still need to come to agreement on, authorize, and appropriate potentially generational innovation legislation. We must not squander this opportunity. Mid-term elections are on our heels – and it will not be long before the battle for the White House is front and center. The Council is looking forward to navigating these choppy waters – and mapping a clear path to shore – with our distinguished community of leaders.

News

The countdown to the June 21st-22nd “[Mountain West Innovation Summit](#)” is on – the agenda is building – and free, online registration is available now.

REGISTER NOW - NO FEE TO ATTEND

Our Hosts:



Edward Seidel
President, University of Wyoming



Gregory P. Hill
President & Chief Operating Officer,
Hess Corporation



John Wagner
Director, Idaho National Laboratory



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

Join Ms. Deborah Wince-Smith; Dr. Ed Seidel, President of the University of Wyoming; Gregory P. Hill, President and COO of Hess Corporation, and Dr. John Wagner, Director of Idaho National Labs as they host leaders from across the country to:

- benchmark national and regional innovation best practices
- network with unparalleled peers seeking partnerships to expand America’s geography of innovation
- frame the direction of the “[National Commission on Innovation and Competitiveness Frontiers](#)” for the coming years
- hear and learn from national leaders at the forefront of innovation, including:

Keynote Speakers:



Mark Gordon
Governor of Wyoming



Erwin Gianchandani
Assistant Director, National
Science Foundation



Tony Aquila
Chairman and CEO,
Canoo Technologies, Inc.

LEARN MORE AT THE SUMMIT LANDING PAGE – AGENDA; SPEAKERS; LOGISTICS.

Council President and CEO Surveys the Global Food Landscape

Last month, Deborah Wince-Smith outlined how America’s history and economy are tightly intertwined with food and agriculture. In a follow-up article on Forbes.com this month, she

focuses on how a convergence of revolutionary technologies – from chemicals, materials, life sciences, digitalization and data, to mobility – has turned food systems into a hotbed of innovation.

Bolstering her arguments are a range of commentaries and observations from key Council on Competitiveness leaders, from two National Commissioners – Dr. Jonathan McIntyre, CEO, Motif FoodWorks Inc., and Dr. René Lammers, Executive Vice President and Chief Science Officer & Global Research & Development, PepsiCo – to Co-Chair of the Technology Leadership and Strategy Initiative, Dr. Jahmy Hindman, Chief Technology Officer, John Deere.



Jahmy Hindman
Chief Technology Officer,
John Deere

“The challenge for global agriculture is innovating ways to do more with less,” explained John Deere’s Chief Technology Officer Dr. Jahmy Hindman. “That means feeding a fast-growing world population while reducing inputs like fertilizer, water, seed, and chemicals to provide for a more sustainable future. Deere believes the answer to this challenge lies in the application of cutting-edge technologies and increasingly intelligent machines, which create more data-driven farming and enable smarter decision-making.”



Jonathan McIntyre
CEO, Motif FoodWorks

“Science has the capacity to radically change how we eat for the better,” said Dr. Jonathan McIntyre, CEO of Motif FoodWorks. “Plant-based is the key to this equation. Yet plant-based foods will never be more nutritious or sustainable unless people actually eat them. We’re pushing the boundaries of what’s possible in plant-based foods, delivering innovations that will benefit people and the planet.”



René Lammers
Executive Vice President
and Chief Science Officer,
PepsiCo

“As a company that does business in more than 200 countries and territories and uses more than 25 crops sourced over 7 million acres in 60 different countries, we have an opportunity and a responsibility to use our size and scale to help build a more sustainable food system,” said René Lammers, Executive Vice President and Chief Science Officer at PepsiCo. “We’re striving to build a food system that preserves the planet and positively impacts the people and communities we work with and serve.”

Read the article and learn more [here](#).

Technology Leadership & Strategy Initiative holds first in-person Spring Dialogue in three years – with special guests from the White House, the National Science Foundation, DARPA, and Brazil’s patent and trademark authority

TLSI Co-Chairs, Dr. Jahmy Hindman (CTO, John Deere) and Dr. Steve Walker (Vice President and CTO, Lockheed Martin), and Council Executive Vice President Chad Evans engaged TLSI members in a focused conversation to explore and map out the TLSI's policy agenda for the coming two years. Facilitated by Council Senior Fellow Mr. Toby Redshaw (CEO, Verus Advisory), and a kick-off presentation by Dr. John Smee, Vice President of Engineering at Qualcomm, TLSI members shared a range of potential project ideas - from a radical rethinking of the U.S. innovation model, to shaping a platform for greater research collaboration and talent sharing across borders with strategic allies.



Jahmy Hindman
Chief Technology Officer,
John Deere



(L) **Steve Walker**, Vice President and CTO,
Lockheed Martin &
(R) **Chad Evans**, Executive Vice President,
Council on Competitiveness

Invited speakers Ms. Amy Nice, Assistant Director for International S&T Workforce in the White House Office of Science and Technology Policy, and Dr. Rebecca Lynn Keiser, Chief of Research Security Strategy and Policy at the U.S. National Science Foundation, spoke about the delicate balancing act of attracting and retaining skilled labor while maintaining research and national security. Dr. Phil Root, Director of the Strategic Technology Office at DARPA, reflected on key opportunities from technology disruption. Dr. Claudio Vilar Furtado, President of the Brazilian National Institute of Industrial Policy, discussed the transformational changes taking place in Brazil's patent approval process – reducing backlogs over many years – and the positive impact these reforms are beginning to have on Brazil's innovation ecosystem.



TLSI Spring 2022 Dialogue Participants

Three ways technology is transforming irrigation and water usage

Together with climate change, population is among the [main causes for global water stress and scarcity](#). A comparison of a mapping of global population growth (see chart 1) with one focused on global variation in water scarcity (see chart 2) indicates an interesting correlation.

Especially countries in the Middle East and Africa, will suffer most from water scarcity – and they are also amongst the countries that will experience the highest population growth rates. But the United States will also face high water stress by 2040.

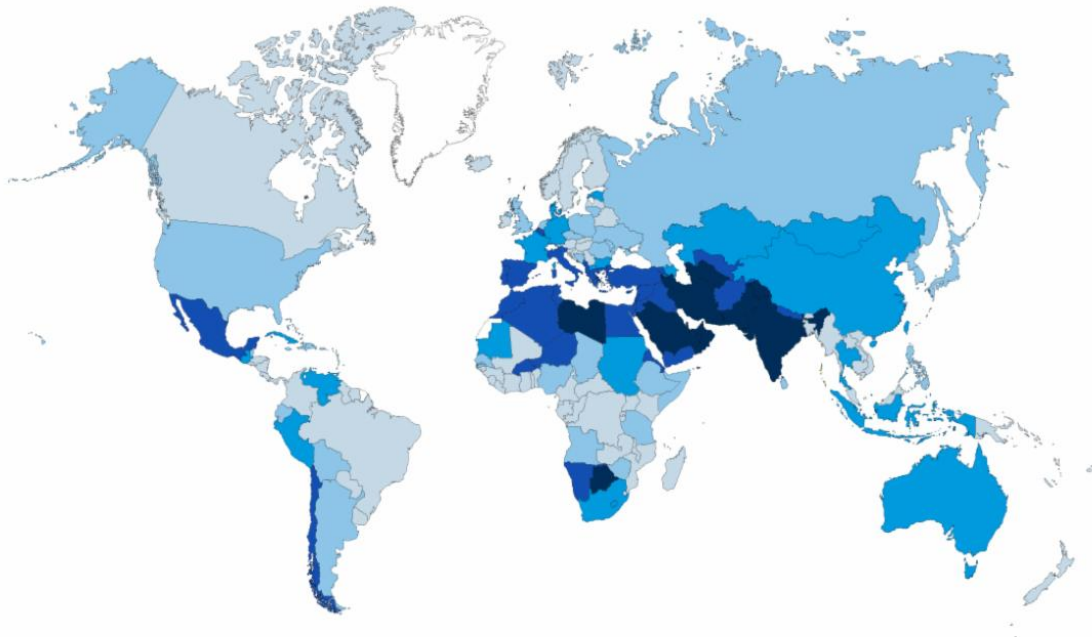
New developments in agricultural technology can help reduce water stress, save water and help to grow crops more in a more sustainable way:

1. **Artificial intelligence** and the use of drones to collect spatial data for analysis can help to conserve water and individualize water needs. A McKinsey study found that precision agriculture [could save 180 billion cubic meters of water by 2030 and increase farmers' incomes by USD 70 billion](#).
2. **Variable rate irrigation** aims at tailoring watering solutions to specific needs of the field based on topography, soil data, adjacent waterways, crop type and other factors. This not only conserves water but can also produce better yields.
3. **Indoor Farming**, and especially **aquaponic and hydroponic agriculture** use as much as [10 times less water](#) than traditional field crop watering methods, while also maximizing available growing space. This allows for farming even in metropolitan areas, additionally reducing emissions in transport of harvested crops.

Global Water Scarcity by Country

Source: Water Risk Atlas by the World Resources Institute, as calculated by Bloomberg (2019).

Low Water Stress  Extremely High Water Stress

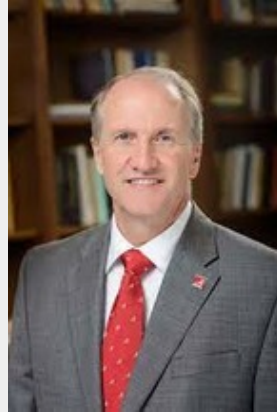


About and For Members

[Council welcomes new members](#)



Tony Allen
President,
Delaware State University



Stuart Bell
President,
University of Alabama



Ted Carter Jr.
President, University of
Nebraska System



Daniel Diermeier
Chancellor, Vanderbilt University



Satish Tripathi
President, University of Buffalo, The State
University of New York

Biden names Assanis to PCAST

President Biden has named University of Delaware (UD) President and Council on Competitiveness member and National Commissioner, Dennis Assanis to serve on his Council of Advisors on Science and Technology (PCAST).

PCAST is the sole body of external advisors charged with making science, technology and innovation policy recommendations to the president and the White House on issues affecting the economy, worker empowerment, education, energy, the environment, public health, national and homeland security, racial equity and more. Assanis, who has served as president of the UD since 2016, is a highly regarded expert in clean energy and power systems. In 2008, he was elected to the National Academy of Engineering.

To read more, click [here](#).



Dennis Assanis
President,
University of Delaware

New Innovation in Overdrive website highlights the innovation impact of Iowa State University research to the regional and national economy



Wendy Wintersteen
President,
Iowa State University

Iowa State University President and National Commissioner Wendy Wintersteen has unveiled a new [Innovation in Overdrive](#) website, highlighting recent progress in science, technology and education at the university. The site features innovation for the [betterment of lives](#), the resilience of a [changing world](#), the [success of livelihoods](#) and the mindset of [tomorrow's innovators](#). It also looks forward to [what's next](#) for how Iowa State is meeting major challenges. *"Our recent innovation is the triumph of ingenuity over uncertainty. That's what defines Innovation at Iowa State. We identify the issues and opportunities. We think boldly. Then we get to work,"* said President Wintersteen.

Dr. David Kwabena Wilson, President of Morgan State University, has been elected to the prestigious American Academy of Arts and Sciences

Dr. Wilson joins 261 other AAA&S members in 2022 who are being recognized for their accomplishments and leadership in academia, the arts, industry, public policy, and research. Per the Academy, Wilson's election signifies the high regard in which he is held by leaders within higher education and AAA&S members throughout the nation. He will be officially inducted during a ceremony to be held in Cambridge, Massachusetts, in 2023.

"This is an unexpected and very high honor. I am humbled by the Academy's decision to elect me for membership in such a prestigious and storied organization," said Dr. Wilson. *"I look forward to joining the ranks of leaders and innovators at the summit of their fields, and I relish this opportunity to contribute to the betterment of society while advancing the Academy's mission."*



David Kwabena Wilson
President,
Morgan State University

The new members join a distinguished group of individuals elected to the Academy before them, including Benjamin Franklin (elected 1781) and Alexander Hamilton (1791) in the 18th century; Charles Darwin (1874) in the 19th; Albert Einstein (1924), Martin Luther King Jr. (1966), Stephen Hawking (1984) and Condoleezza Rice (1997) in the 20th, to name a few.

Read more [here](#).

Council Leaders make Washingtonian's List of 500 most influential people in Washington, DC

This prestigious list features DC-area-based experts and advocates outside the government who are playing significant roles in generating cutting-edge ideas, driving policy debate, and making public policy change. The backgrounds of the honorees and span issues including antitrust, general economic policy, infrastructure, education, and many more.

Several Council leaders, including Council Vice Chair for Labor and IBEW International President Lonnie Stephenson; Ms. Randi Weingarten, the President of the American Federation of Teachers; Mr. Sean McGarvey, the President of North America's Building Trades Unions; and, Council National Commissioner and Howard University President, Dr. Wayne A.I. Frederick, made the list for their manifold contributions to the region.

Read more [here](#).



Lonnie Stephenson
International President, IBEW



Randi Weingarten
President, American Federation of
Teachers



Sean McGarvey
President, North America's Building Trades
Unions



Wayne A.I. Frederick
President, Howard University

**Former Provost of the University of Utah and Advanced Computing Roundtable Member
Daniel Reed has been elected as Chair to the National Science Board**



Daniel Reed
Presidential Professor in
Computational Science,
University of Utah and Chair,
National Science Board

Dr. Reed will chair the National Science Board (NSB) for the next two years. The NSB is both the policymaking body of the National Science Foundation (NSF), and an independent advisor to Congress and the president on science and engineering policy.

Reed has previously chaired the NSB's Committee on Awards and Facilities and served on the Committee on Strategy, as well as on the Committee for National Science and Engineering Policy.

"Continued advances in science and engineering have never been more important," says Reed. "New insights and discoveries help us better understand the world and help fuel America's economy. I look forward to working with NSF Director Panchanathan and his leadership team, the U.S. Congress, the administration, our science and engineering colleagues and industry leaders so that our country remains a keystone of global science and engineering."

Read more [here](#).

Lockheed Martin was named Partner of the Year by Energy Star for the fourth year in a row

Lockheed Martin received the 2022 ENERGY STAR Award from the U.S. Environmental Protection Agency and the U.S. Department of Energy for the fourth year in a row, earning the distinguished Sustained Excellence award for the second time.

The Energy Star program honors businesses and organizations that have made outstanding contributions to protecting the environment. Awardees are industry leaders in the production, sale, and adoption of energy-efficient products, homes, buildings, services and strategies.

Read more [here](#).

Seeding Markets To Grow Transformational Innovations

[A new report from Deloitte](#) – released at the [World Government Summit](#) in Dubai and featuring input from the Council on Competitiveness – maps the role government has played historically in catalyzing innovations that have shaped the modern world. However, it argued the challenges of the 21st century are beyond the power of any single player to solve. To help address the most pressing challenges of today, the report argues government needs to understand better the players, roles, and tools that build markets for innovations – and offers suggestions on potential improvements.



National Science Foundation launches new “Regional Innovation Engines” initiative to foster innovation ecosystems across the U.S.

As the United States faces growing global competition for talent and leadership in science, technology, engineering, research and education, a new initiative by the NSF aims to expand the U.S. innovation capacity by leveraging resources, creativity, and ingenuity across all geographic regions of the country.

The “[Regional Innovation Engines](#)” initiative will catalyze innovation ecosystems across the nation to advance critical technologies, address national and social challenges, foster public-private partnerships, promote economic growth and stimulate jobs, and increase regional innovation and talent.

Place-based innovation has been an important issue for the Council’s flagship initiative, the National Commission on Innovation and Competitiveness Frontiers. To read more about our recommendations to boost regional innovation and harvest the full potential of talent across the United States, check out [Competing in the Next Economy](#).

Global leaders assessing economic and security outlook for 2022-2023

Council President & CEO, Deborah Wince-Smith participated in the Horasis Global Summit – and a link to her session can be found [here](#). Wince-Smith and her fellow panelists - Erik Berglof, Chief Economist, Asia Infrastructure Investment Bank, China; Kris Gopalakrishnan, Chairman, Axilor Ventures, India; Vinod Sekhar, Chairman and Group Chief Executive Officer, Petra Group, Malaysia; and, Inga Thordar, Former Executive

Editor, CNN Digital International, United Kingdom – focused on the global outlook for the coming year, in the face of slowing global GDP, rising inflation, rising trade conflicts, war in Ukraine, and the persistence of the COVID-19 pandemic.



Patricia A. Hennig
VP of Finance, Council on
Competitiveness

With profound sadness, we share news of the death of our Vice President of Finance, Patricia A. Hennig. Pat joined the Council on Competitiveness in 2007 and served until her untimely death on May 5, 2022. Pat was a very dedicated employee with a strong work ethic. The Council team - and, we are sure, many in our extended community - will miss her help, insights, distinctive humor, generosity of spirit, and friendship.

CONTACT US

CONNECT WITH COMPETE

