

United States Senate

WASHINGTON, DC 20510

March 7, 2022

The Honorable Charles Schumer
Majority Leader
U.S. Senate
Washington, DC 20510

The Honorable Mitch McConnell
Minority Leader
U.S. Senate
Washington, DC 20510

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

The Honorable Kevin McCarthy
Minority Leader
U.S. House of Representatives
Washington, DC 20515

Dear Majority Leader Schumer, Minority Leader McConnell, Speaker Pelosi, and Minority Leader McCarthy,

We write today in regard to our support for strengthening American competitiveness and leadership in science, technology, and innovation. Building upon the goals outlined in the America COMPETES Act of 2007, we know that strong research and development (R&D) funding in key areas of science and technology is imperative to maintaining and enhancing U.S. competitiveness, prosperity, and security. We ask that any final competitiveness legislation provide ample support for both basic and applied research by leveraging our existing innovation ecosystem, including at the Department of Energy (DOE) and the National Science Foundation (NSF), to ensure that the U.S. remains at the vanguard of emerging technologies and industries.

While the United States has long been the world leader in research and development, other countries are making enormous investments in key technology areas, leaving the U.S. at risk of being rapidly outpaced. For example, President of the People's Republic of China (PRC) Xi Jinping is focused on investing billions of dollars to create a lab network modeled after the Department of Energy's National Laboratories to "seize the commanding heights of scientific and technological innovation"¹. Additionally, the PRC is creating and implementing detailed frameworks that align their government, academic, and industrial sectors with their national agenda in an effort to dominate what will likely be the key economic drivers in the 21st century.

As the Senate and House develop final language for the competitiveness bill under consideration, including the United States Innovation and Competition Act of 2021 (USICA) and the America COMPETES Act of 2022, it is critical that we invest across our R&D ecosystems. Historically, the combination of our university, national laboratory, and business R&D has driven U.S. leadership in science and technology capability, expertise, and commerce and enabled the most innovative and entrepreneurial private sector in the world. However, recent increases in global R&D expenditures in transformative new industries, such as quantum information sciences,

¹ Xinhua News Agency. Xi Jinping: Explanation on the "Proposal of the Central Committee of the Communist Party of China on Formulating the Thirteenth Five-Year Plan for National Economic and Social Development". 3 Nov 2015. <http://cpc.people.com.cn/n/2015/1103/c64094-27772663.html>

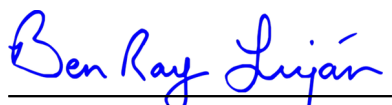
artificial intelligence, advanced energy, and biotechnology, place new urgency on strengthening the United States' commitment to and investment in R&D. The Energy Department and its 17 National Laboratories already have unmatched expertise and capacity in many of these transformative new industries, as well as experience both transferring tech to the private sector and protecting it from theft by international competitors, so significant funding for DOE must be included in the final bill.

The Senate-passed USICA includes significant authorizations for both the NSF and the DOE to advance the commercialization of technologies key to emerging industries. In particular, the authorization of \$16.9 billion in USICA for DOE supports programs in applied energy research to include the development of advanced energy and industrial efficiency technologies, batteries, and advanced nuclear technologies, all of which are critical for our country's ability to address national challenges and remain economically competitive and secure. The America COMPETES Act of 2022, recently passed by the House of Representatives, provides a much needed comprehensive reauthorization of DOE's basic science mission, but it does not include equally important additional investments in DOE's applied energy research programs. The pipeline of innovation is fueled by investments in both basic and applied research, and we urge you to include authorizations for DOE across these areas to secure the United States' position at the frontier of key technologies and emerging industries and ensure R&D across the federal government is coordinated and not duplicative.

From harnessing the atom to mapping the human genome to developing the nation's first exascale computer, DOE and the National Laboratories have tackled some of the greatest challenges to face our nation. They have extensive experience and established processes to ensure research security, operate extremely productive user facilities with unique and unparalleled capabilities, support the cutting-edge research of a hundred thousand scientists, and maintain the tools and expertise to address energy and other global challenges. As negotiations over competitiveness legislation begin, we would be wise to leverage these invaluable national assets, the whole innovation ecosystem, and the basic and applied research programs that support them to ensure the United States remains ready to lead the industries of the future.

We appreciate your consideration.

Sincerely,



Ben Ray Lujan
United States Senator



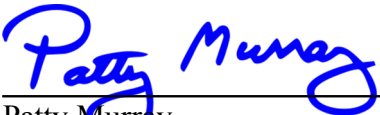
Marsha Blackburn
United States Senator



Richard J. Durbin
United States Senator



James E. Risch
United States Senator



Patty Murray
United States Senator



Bill Hagerty
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Martin Heinrich
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