TASK FORCE ON AMERICAN INNOVATION

Securing the future through research in the physical sciences and engineering

June 25, 2024

The Honorable Mike Johnson
Speaker of the House
United States House of Representatives
Washington, DC 20515

The Honorable Chuck Schumer
Majority Leader
United States Senate
Washington, DC 20515

The Honorable Mitch McConnell
Republican Leader
United States Senate
Washington, DC 20515

The Honorable Hakeem Jeffries
Democratic Leader
United States House of Representatives
Washington, DC 20515

RE: Urgent Call for Increased R&D Funding at the National Science Foundation

Dear Speaker Johnson, Leader Schumer, Leader McConnell, and Leader Jeffries:

As Chief Technology Officers (CTOs) and senior research executives helping to drive United States job growth, economic prosperity, and national security at some of the most innovative technology companies in the world, we ask you to fully fund the critically important research and development (R&D) at the National Science Foundation (NSF) at the levels authorized in the CHIPS and Science Act. These fundamental R&D investments, at NSF and across the federal government, foster innovative breakthroughs, drive job growth, and ensure national security amidst growing global competition.

The U.S. currently stands atop the global tech market due to the unmatched combination of our universities, skilled workers, innovative drive, and diverse talent. The lifeblood of this ecosystem is federally funded research, with NSF playing a crucial role connecting the academy to industry and the government. From research into materials and chemicals that broadly supply the tech sector, to advancements in additive manufacturing and the technologies underlying smartphones, to the development of the commercial internet including search engines like Google, NSF-funded research has been the genesis of many multi-billion-dollar industries.

Today, NSF-funded projects are advancing innovative technologies benefiting the industries of the future. For instance, NSF-funded research to improve semiconductors will lead to new applications in high-performance computing, quantum, and batteries. And NSF-sponsored research into artificial intelligence (AI) is already producing technologies that can boost company productivity and customer experience or improve processes and drive new insights.

While our global competitors make targeted and deliberate investments in R&D, the U.S. considers such investments discretionary, and they are often targeted for cuts. This year, Congress provided only 58 percent of the bipartisan CHIPS and Science-authorized NSF

funding levels for FY24, cutting NSF's funding by eight percent compared to FY23. Meanwhile, countries like China recognize the value of this research and are increasing their own R&D investments by eight percent annually.

As technology leaders, we understand the pressure on the U.S. research enterprise. We are uniquely positioned to see the intersection of federally funded basic science, workforce development, and our own applied research investments. Basic science research provides fundamental insights upstream — as well as a highly skilled workforce trained in first principles — both of which are necessary to support our applied R&D downstream. These are investments that the private sector cannot make because basic research is not yet differentiated enough to understand its application.

That said, the private sector has consistently shown that we are an eager partner to the federal government—we pick up the outputs of NSF-supported research and continue to drive that research to commercially viable products as well as U.S. market leadership in the global economy. According to an Information Technology and Innovation Foundation (ITIF) report on U.S. Private Sector R&D Spending, the U.S. private sector increased its total R&D investment by 64 percent from 2018 to 2022, an increase driven by the exponential pace of innovation.

Part of our investments include areas where we partner with NSF to co-design research that could lead to advancements in technology. NSF's Future of Semiconductors (FuSe) Program is a prime example. FuSe aims to foster co-design and co-creation of research that addresses semiconductor challenges. It operates in a public-private partnership model (PPP) where the costs of the research are distributed between NSF and industry partners.

We urge Congress to prioritize the commitments it made to NSF research at the levels authorized in the CHIPS and Science Act. Instead of repeatedly ignoring the historic direction to significantly increase NSF funding, as Congress did after the passage of both the "America COMPETES" acts in 2007 and 2010, let us seize this moment to invest in our nation's future innovation. Together we can accelerate scientific discovery, drive technological breakthroughs, and secure a prosperous and resilient future for America.

Sincerely,

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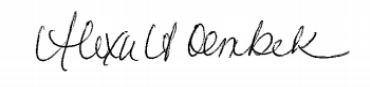

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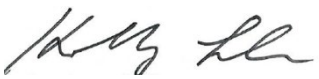

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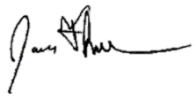

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