## Congress of the United States Washington, D.C. 20510

August 4, 2023

The Honorable Gina M. Raimondo Secretary Department of Commerce 1401 Constitution Ave., NW Washington, DC 20230 The Honorable Alejandra Y. Castillo Assistant Secretary of Commerce for Economic Development Department of Commerce 1401 Constitution Avenue, NW Washington, D.C. 20230

Dear Secretary Raimondo and Assistant Secretary Castillo,

Last year, Congress passed the CHIPS and Science Act (P.L. 117-167) to revitalize domestic manufacturing, reinvest in critical supply chains, and reinforce U.S. leadership in advanced research and development. A key component of this effort is the law's Regional Technology and Innovation Hubs program (Tech Hubs), which will drive innovation across the country by strengthening regional manufacturing and commercialization of critical technologies. This initiative has the potential to not only advance cutting-edge development, but to foster inclusive and equitable economic growth–increasing the diversity of our advanced manufacturing base and securing U.S. economic and national security.

As you work to implement the Tech Hubs program, we write to highlight the strength of Colorado's existing technology ecosystem. For decades, the state has invested in fundamental research and development, attracted top workforce talent, and successfully translated experimental technology into commercial products. Colorado has combined capital access, a highly-educated workforce, and extensive research and entrepreneurial infrastructure to emerge at the forefront of American regional innovation.

Colorado is a significant driver and recipient of research and development funds, fostering a diverse ecosystem of national labs, institutes of higher education, and private research organizations. According to the National Science Foundation, Colorado ranked 16th in total research and development funding when standardized by gross state product–and 6th in federal funding per worker. Between fiscal year 2016 and 2023, the state received the 4<sup>th</sup> highest amount in per capita funding from Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards. This investment in research and development has led to the successful translation of a number of technologies from academic labs to the broader market. In 2020, Colorado universities produced 29 startups, the 13th highest in the country.

Capital networks in Colorado are robust. From 2016-2021, the state ranked 6th in venture capital investment when standardized for economy size. This entrepreneurial mindset extends across the state, with Colorado boasting the 8th highest rate of new entrepreneurs in 2021. Colorado's start-ups make a rapid and pronounced impact on the economy, and in 2021 created an average of six jobs within their first year, the 4th highest rate when compared nationally and ahead of California, New York, Massachusetts, and Texas. These start-ups thrive, with 82 percent in

operation at the end of their first year—a testament to the dynamism of Colorado's broader economy.

Colorado's human talent remains one of its most important assets, and is an area of continued growth and reinvestment. In 2021, Colorado employed over 272,000 employees in the technology industry, accounting for over 9 percent of total jobs in the state, and was the second most concentrated tech industry economy behind only Massachusetts. From 2016-2021, Colorado's tech industry employment grew by more than 16 percent—the 11th highest growth rate in the nation, and well above the U.S. average of 10 percent.

Colorado supports this technology economy with a significant rate of graduated college students majoring in science, technology, engineering, and mathematics (STEM). These new graduates enter the workforce with an incredible level of proficiency due to the strength of the STEM programming available in our institutions of higher education, like the School of Mines' College of Engineering—which Money Magazine ranked 3rd in the US in 2022—and CU Boulder's Laboratory for Atmospheric and Space Physics—which is the world's only research institute to have sent instruments to all eight planets and Pluto.

In key technology areas, Colorado is nationally competitive. The state ranks in the top ten in private sector funding across a range of sectors, including quantum technology; robotics and automation; artificial intelligence and machine learning; natural disaster prevention and mitigation; high performance computing and semiconductors; advanced energy, batteries, and nuclear; advanced materials science and manufacturing; and data storage, data management, and cybersecurity. These industries form the backbone of Colorado's cutting-edge economy, contributing to sustained growth and ensuring the United States continues to lead in advanced technology.

The Tech Hubs Program is an investment in our future. As you work to allocate CHIPS and Science Act funding and designate Tech Hubs across the country, due consideration should be made to existing infrastructure, workforce capacity, research and development activity, and past history of success translating technology from experimental to commercial production. Colorado contains the assets, resources, capacity, and potential to emerge as globally competitive center for innovation and industry.

Thank you, and we look forward to working with you on this important initiative.

Sincerely,

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Michael F. Bennet United States Senator

John Hickenlooper United States Senator

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