

# Congress of the United States

Washington, DC 20510

June 6, 2014

The Honorable Chuck Hagel  
Secretary of Defense  
U.S. Department of Defense  
1000 Defense Pentagon  
Washington, DC 20301-1000

Dear Secretary Hagel:

We write in strong support of the Department of Defense's (DoD) manufacturing innovation institute competition and respectfully request that DoD support the development of an advanced photonics manufacturing hub in the United States.

As you know, the manufacturing innovation institute competition will allow for the establishment of public/private manufacturing hubs to bridge the gap between applied research and product development. By bringing together companies, universities, and federal agencies, our nation can co-invest in areas that encourage investment and production of key technologies in the United States such as advanced photonics.

The significance of photonics is increasingly recognized in a number of forums. In 2012, the National Academies National Research Council released a noteworthy report, "Optics and Photonics, Essential Technologies for Our Nation," which emphasized the importance of this technology, and on a global scale, the United Nations proclaimed 2015 as the International Year of Light and Light-based Technologies.

Manufacturing in advanced photonics should be a priority for the United States given the technological solutions it can provide for national security, and the economic benefit it will provide to a number of industries. These technologies should be developed and manufactured in the United States, not abroad. The modern technology surrounding us today – phones, computers, televisions – and the communications technologies that enable these devices to function are all made possible largely by optics and photonics. Other technologies benefit from optics and photonics as well, including advanced manufacturing, robotics, medical imaging, next-generation displays, defense technologies, biometric security, image processing, communications, and many others.

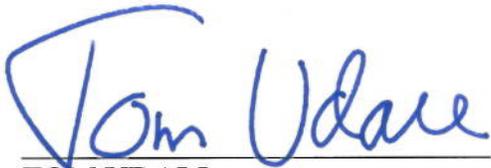
Further research and manufacturing of optics and photonics will benefit U.S. national security, enabling greater advances in defense technologies that improve intelligence capabilities for the warfighter such as the capture of spectral signals from space, and the development of directed energy weapons. These signals technologies are vital for information gathering, data transfer, and even provide non-kinetic military solutions to minimize civilian casualties. Photonics research will lead to improved night vision

capabilities and advanced infrared counter measures, increasing the tools available to the warfighter. Photonic technology developed for defense purposes will also serve a dual commercial purpose, enabling advances in image processing, more effective non-invasive health screenings, robotics, and improved sensors for first responders.

We believe the potential for advanced photonics is enormous and the United States is well positioned to capture both the strategic military value of photonics and the economic benefits of a growing industry. In New Mexico, the business community, along with the scientific and military community, have already begun to reap the benefits of advance photonics, and increased investment will only see the dividends provided to the country increase as a result.

Thank you for your leadership in conducting the manufacturing innovation institute competition. We hope the DoD will give advanced photonics its sincere consideration as the next manufacturing innovation institute.

Sincerely,



TOM UDALL  
United States Senator



MARTIN HEINRICH  
United States Senator



STEVAN PEARCE  
United States Representative



BEN RAY LUJAN  
United States Representative



MICHELLE LUJAN GRISHAM  
United States Representative

Cc: The Honorable Elena Broitman  
Acting Deputy Assistant Secretary for Manufacturing and Industrial Base Policy