



AMERICA COMPETES REAUTHORIZATION PROPOSED LANGUAGE

Spurring Innovations in Optics and Photonics

The National Photonics Initiative (NPI) strongly urges the Senate to reauthorize the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science Act (America COMPETES), which expired in 2013. The NPI also requests the US Senate Committee on Commerce, Science and Transportation include a provision that would signal Congress's interest in federal science agencies facilitating private and public collaboration on priority optics and photonics research and technology; leveraging optics and photonics applications across agencies and for multiple uses; establishing a hands-on education-to-workforce pipeline; and helping to ensure US competitiveness in optics and photonics.

Proposed language for America COMPETES provision:

SEC. XX SENSE OF CONGRESS; OPTICS AND PHOTONICS TECHNOLOGY INNOVATIONS.

It is the sense of Congress that—

- (1) Optics and photonics - the science and application of light - are foundational technologies that promote US global competitiveness in industry sectors including telecommunications and information technology, energy, healthcare and medicine, manufacturing, and defense;
- (2) Federal science agencies, industry, and academia should seek partnerships to develop basic research in optics and photonics into more mature technologies and capabilities;
- (3) Federal science agencies, as appropriate, should –
 - (A) survey and identify optics and photonics-related programs within their agencies and share results with each other for the purpose of generating multiple applications and uses;
 - (B) partner with the private sector and academia to leverage knowledge and resources to maximize opportunities for innovation including the development of high-value technology road maps;
 - (C) explore research and development opportunities including federal and private sector-sponsored internships to ensure a highly trained optics and photonics workforce in the US; and
 - (D) assess existing programs and explore alternatives to modernize photonics laboratory equipment in undergraduate institutions in the US to facilitate critical hands-on learning.