



REAUTHORIZE AMERICA COMPETES ACT

Optics and Photonics Critical to National Competitiveness

America COMPETES

The National Photonics Initiative (NPI) strongly supports reauthorization of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science Act (America COMPETES). The Act was designed to invest in innovation through research and development (R&D) and improve US competitiveness in response to widespread concern that the US was falling behind its international competitors in science and technology. America COMPETES was originally passed in 2007 and reauthorized in 2010, but it expired in 2013.

In the 113th Congress, the NPI advocated for the introduction of the America COMPETES reauthorization in the Senate. S. 2757, which authorized spending for federal R&D agencies such as the National Institute of Standards and Technology (NIST) and the National Science Foundation (NSF) for FY 2015 through 2019, *and for the first time, recognized photonics* – the science and application of light – as an industry critical to the ongoing innovation of many other sectors. Neither the Senate nor House of Representatives version of America COMPETES passed by the end of the 113th Congress.

In the 114th Congress, the US House of Representatives introduced and passed its version of America COMPETES Reauthorization, H.R. 1806. However, this bill does not authorize desired funding levels for civilian R&D agencies and does not include language that would focus private and public investments in critical optics and photonics technologies.

The recent Laser Interferometer Gravitational-Wave Observatory (LIGO) detection of gravitational waves underscores the foundational role of optics and photonics in significant scientific advancement and innovation. This discovery was made possible by ultra-precise laser-based interferometers enabled by photonics, which have applications beyond scientific discovery. LIGO is based in the US and funded by NSF, a civilian R&D agency authorized under the America COMPETES Act.

The National Photonics Initiative (NPI) urges the Senate to introduce America COMPETES Reauthorization to help bolster US national competitiveness in science and technology in the years to come. Further, the NPI requests the Senate bill include optics and photonics language to spur innovation and encourage partnerships between the federal government, industry and academia.

Public-private partnerships will spearhead pivotal R&D investments in photonics and promote exploration of existing photonics technologies for other applications. Research and advanced technology development in photonics will ensure jobs and talent stay in the US and usher in next generation technologies across economic sectors. The NPI remains committed to supporting an authorization bill that will ensure opportunities for private and federal investments in optics and photonics, and strengthen the future of US scientific innovation and competitiveness.

About the NPI

The NPI is a collaborative alliance among industry, academia and government seeking to raise awareness of photonics and the impact of photonics on our everyday lives; increase cooperation and coordination to advance photonics-driven fields; and drive US funding and investment in areas of photonics critical to maintaining US economic competitiveness and national security. The initiative is led by a coalition of scientific societies, including the American Physical Society (APS), the IEEE Photonics Society (IPS), the Laser Institute of America (LIA), The Optical Society (OSA) and SPIE, the International Society for Optics and Photonics (SPIE).

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