

Greetings and Happy New Year!

As we kick off 2017 with a new administration and Congress, the National Photonics Initiative (NPI) wanted to update our community on efforts over the past several months to wrap up key collaborations with the Obama administration and secure policy victories with the 114th Congress, all while laying the groundwork with the Trump team and congressional Republicans as their respective legislative priorities take shape.

While there is still much speculation about the policy agenda of President Trump and the new Congress, there are issues that have been repeatedly discussed that present enormous opportunity for the photonics community. Infrastructure, broadband, cyber security and energy are all on the table, and align closely with the priorities of the NPI. Within each of these issues, American competitiveness and job growth will be a common theme. As was exemplified by the Carrier deal, this administration will be laser focused on building jobs that generate products and output in order to enable America to better compete globally. And our community knows that investments in photonics research and development translate to a more highly trained US workforce – a belief validated by language in the American Innovation and Competitiveness Act passed by Congress at the end of last year and signed into law by then-President Obama.

The NPI is committed to educating the Trump administration and the 115th Congress about the importance of photonics, and working with them to continue to achieve breakthroughs in research commercialization and technology transfer to improve our nation's competitiveness. In order to be successful we need you, our industry and academic experts, to help make the case to your lawmakers. The audience in Washington may have changed, but the message remains the same: photonics is critical to maintaining US economic competitiveness and national security. How we convey that point to our policymakers in Washington will depend largely on our ability to localize the message and show constituent support for our policy priorities. Opportunities such as Congressional Visits Day (CVD) – April 25 and 26 – give the photonics community a platform to deliver a unified message to Congress; we hope you will join us. Please save the date!

Since the NPI was established in May 2013, we have worked successfully with the administration and across the aisle in Congress to promote public-private collaborations that will spur commercialization of cutting-edge photonics research. In just over three years, the NPI has successfully demonstrated the value of optics and photonics technologies across economic sectors and contributed to national initiatives in health and medicine, defense and advanced manufacturing, and information technology.

As 2016 came to a close, we celebrated two significant legislative victories:

- After a year-long advocacy campaign, the NPI secured optics and photonics language in the premier innovation bill – S. 3084, [American Innovation and Competitiveness Act](#) – signed into law by President Obama. The bill contained a provision that charges US industry, academia and the federal government to work in partnership to invest in critical optics and photonics research and technologies that will enhance innovation in private and public sector laboratories, promote the nation's continued competitiveness in sectors across the global economy and sustain a well-trained workforce into future generations.

- We worked to successfully support the [21st Century Cures Act](#) to fund photonics priorities in the Cancer Moonshot and the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative signed into law by President Obama. The bill provides \$1.8 billion to support the Cancer Moonshot Initiative and \$1.5 billion in support of the BRAIN Initiative. NPI has been a vocal and active contributor to the essential work of both of these legacy initiatives.



The NPI also concluded important collaborative initiatives with the Obama Administration, and took steps to begin educating the incoming administration:

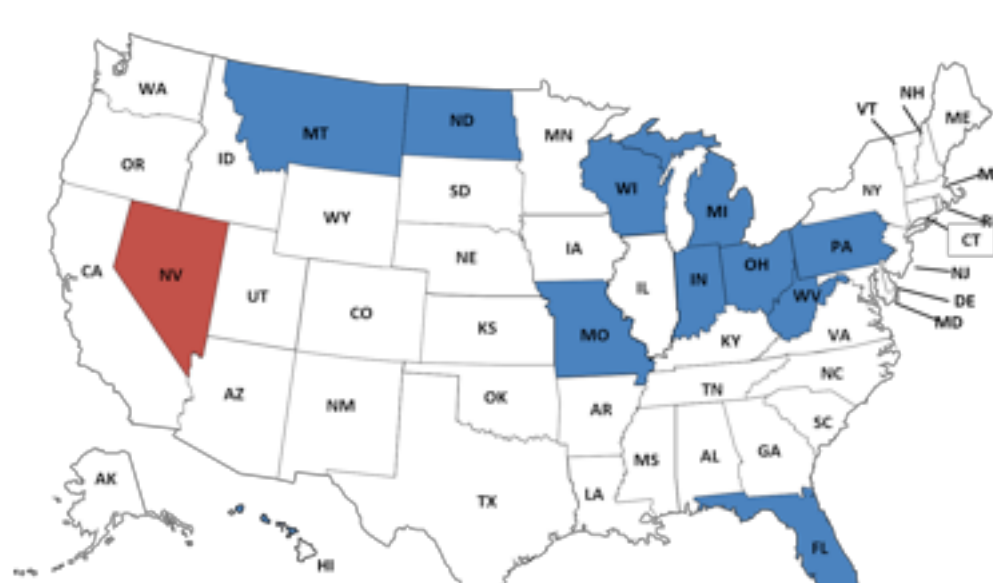
- Throughout the latter half of 2016, the NPI completed an update of a white paper first published in 2013 to reflect the strides our community has made over the last three and a half years, and outline continued and new advocacy priorities. The white paper, [US Prosperity and Security through the Science and Application of Light](#), was distributed to the transition teams of both presidential candidates in the lead up to the election, and is now being updated for delivery to the Trump Administration.

- After the NPI white paper was delivered to both presidential transition teams, we began deliberations on drafting another white paper for advancing quantum science and technology (QST). Missing from the top-level policy discussions in the United States is the recognition of the importance of optical sciences and technologies in QST. The white paper, [The Role of Optics and Photonics in a National Initiative in Quantum Science and Technology \(QST\)](#), expresses the vital importance of optical sciences and technologies in the quantum revolution, and focuses on areas that have the biggest impact on job creation, homeland security, industrial competitiveness and scientific leadership. We shared this paper with former officials at the White House Office of Science and Technology Policy (OSTP) and are incorporating elements of our recommendations in the larger white paper that will be sent to the Trump Administration.

- In October, Dr. Tom Baer – former chairman of the NPI and past chair of the Photonics Industry Neuroscience Group – was invited to participate in The White House Frontiers Conference in Pittsburgh. Recognition by the Obama administration of the role that optics and photonics play in revolutionizing our understanding of the human brain would not have been possible without the commitment of the NPI's industry partners and the leadership of Tom Baer. The conference brought together more than 700 of the country's most prominent scientists and researchers at the University of Pittsburgh and Carnegie Mellon University. At the conference, the administration announced \$70 million in new National Institutes of Health (NIH) investments dedicated to brain research, specifically targeting Alzheimer's and Parkinson's diseases as well as depression and traumatic brain injuries.



- A key priority for the NPI in the year ahead will be to continue our work to advance the early detection of cancer. Upon request of the Office of the Vice President, the NPI submitted an outline of our ongoing commitment to supporting the mission of the Cancer Moonshot, and included in that summary aims to host a workshop that will bring together leading researchers from clinical research hospitals, government agencies, technology innovators from the medical device industry and academia to discuss current medical challenges in early cancer diagnosis, existing state of the art early diagnosis technologies and new approaches to achieving earlier detection of the most deadly cancers.



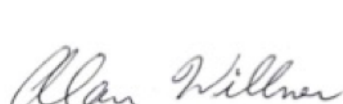
As the saying goes, all politics is local. As we prepare for the year ahead, this phrase is of increased significance. Many of the states that swung for President Trump on Election Day – particularly Florida, Michigan, Ohio, Indiana, Wisconsin and Pennsylvania – are considered priority states by both

Republicans and Democrats running into the 2018 Senate elections. 10 Democrats up for re-election in 2018 will be running in states won by Donald Trump in 2016 (blue states on the map); only one Republican will be running in a state won by Hillary Clinton (red state on the map). As we plan for the year ahead, these states – in addition to others such as New York, Arizona and California that have a strong photonics presence – will also be of heightened interest to the NPI.

Whether you live or work in one of the priority states or just have a strong interest in vocalizing the photonics message, we invite you to come to Washington to visit your elected officials on Capitol Hill or host your members of Congress locally to tour your business, university or place of work to demonstrate first-hand how optics and photonics is promoting jobs, competitiveness and national security.

For more information on how to join us for CVD on April 25 and 26 in Washington, DC or to learn about becoming more involved in the NPI's efforts, visit www.lightourfuture.org or contact Laura Kolton at 202.416.1499 or Krisinda Plenkovich at 360.483.8786.

Sincerely,



Alan Willner,
Chair, National Photonics Initiative

Contact Us

The NPI is interested in hearing from you. Are you interested in joining our efforts? Do you have questions? Need additional information? Please contact Laura Kolton at (202) 416 1499 or lkolto@osa.org, or Krisinda Plenkovich at (360) 685 5518 or krisindap@spie.org.

Please visit the NPI website for more information: www.lightourfuture.org.