

Inprentus Joins the National Semiconductor Technology Center as a Core Member

The public-private consortium will bolster the US semiconductor industry with a focus on innovation, collaboration, and education.

CHAMPAIGN, IL, UNITED STATES,
August 7, 2025 /EINPresswire.com/ -Inprentus, Inc, world leader in the
advanced manufacturing of precision
blazed diffraction gratings, announced
its membership in the National
Semiconductor Technology Center
(NSTC), a public-private consortium
creating an unprecedented
infrastructure to accelerate
semiconductor R&D innovation,
develop a skilled workforce, and secure
the United States' leadership position
in the global semiconductor industry.
This partnership aligns with Inprentus



Inc.'s commitment to facilitating US-based next-level science and technology by providing cutting-edge developments, collaborations, and partnerships.

As a core NSTC member, Inprentus, Inc. expects to benefit from dynamic and cross-sector collaboration; access to leading-edge R&D facilities; member-driven research; unique opportunities to research, prototype, and scale up semiconductor technologies; and workforce best practices and initiatives developed through the NSTC Workforce Center of Excellence. These resources are aimed at reducing barriers for members to bring new technologies from lab-to-fab as well as supporting member efforts to build and sustain a strong U.S. semiconductor workforce development ecosystem.

"Inprentus' membership in NSTC will fuel the Company's innovative activities in the semiconductor industry" said Jeff MacDonald, Inprentus' Interim CEO. "Having access to thought leaders and collaborators with similar missions from across the industry will greatly improve our

ability to meet the needs of the market"



Through NSTC's network of membership companies, Inprentus will

continue to grow its presence within the semiconductor industry by demonstrating the Company's unique optical design and advanced manufacturing capabilities, including the manufacture of diffraction gratings for 13.5nm EUV metrology, and a recently commercialized spectrograph for in-situ diagnostics of EUV plasma sources. Through improved metrology



Inprentus is uniquely positioned to enable unprecedented optimization of plasma light sources, advancing and accelerating all areas of next-generation chip lithography"

Peter Abbamonte, Inprentus

Founder and Chief Science

Officer

techniques facilitated by Inprentus' products, semiconductor patterning efficiency and yield can be significantly improved to provide real-time information about the source plasma conditions. In addition, Inprentus product offerings are uniquely suitable for the industry, as they are space-efficient, radiation-hard, and ultra-high vacuum (UHV) compatible.

"Inprentus is uniquely positioned to enable unprecedented optimization of plasma light sources, advancing and accelerating all areas of next-generation chip lithography" explained Peter Abbamonte, Inprentus founder and Chief Science Officer.

Established by the CHIPS and Science Act and led by <u>Natcast</u>, the purpose-built, non-profit entity designated to operate the NSTC by the U.S. Department of Commerce, the mission of the NSTC is to convene a diverse set of members from across the semiconductor industry value chain, academia, and government to advance three shared and strategic goals: strengthening U.S. semiconductor leadership; reducing time from lab-to-fab, and expanding the U.S. semiconductor workforce.

Learn more about the benefits of becoming an NSTC member and join the mission at natcast.org/NSTCmembership.

ABOUT INPRENTUS INC.:

Inprentus, located in Champaign, Illinois, USA, designs and manufactures high-performance, custom gratings-based solutions for advanced materials research utilized in synchrotron and free electron laser facilities globally. The company specializes in products for soft x-ray for synchrotron and FEL applications and OEM customers in EUV lithography and metrology, UVOIR Spectroscopy, Augmented Reality (AR) and infrared sensors.

Inprentus was founded in June 2012 by University of Illinois Urbana-Champaign physics professor Peter Abbamonte with an NSF SBIR (Phase 1 and 2) to commercialize an innovative,

nano-scale contact-lithography technique. Inprentus has a 12000 sq. ft manufacturing facility with a cleanroom for manufacturing cutting-edge UHV compatible optics. We are a critical optical component supplier of blazed gratings to the global optical industry with domestic customers like Lawrence Berkeley National lab and NASA. We are dedicated to increasing high-tech manufacturing jobs in the Midwest while securing US technology leadership position.

Inprentus aims to apply 21st century mechanical ruling to solve critical current and future grating-centered challenges. We are committed to excellence, risk, and pushing boundaries by providing state of the art blazed gratings that perform to unprecedented specifications and that enable novel applications. Outcomes include next-generation monochromators, spectrometers, laser systems, and analytical instrumentation in defense applications, as well as ground-breaking consumer experiences enabled by improvements in chip manufacturing and see-through AR waveguides. Inprentus is dedicated to facilitating next-level science and technology by continually enhancing our capabilities with cutting-edge developments, collaborations, and partnerships.

ABOUT NATCAST

Natcast is a purpose-built, non-profit entity designated to operate the National Semiconductor Technology Center (NSTC) by the Department of Commerce. Established by the CHIPS and Science Act of the U.S. government, the NSTC is a public-private consortium dedicated to semiconductor R&D in the United States. The NSTC convenes industry, academia, and government from across the semiconductor ecosystem to address the most challenging barriers to continued technological progress in the domestic semiconductor industry, including the need for a skilled workforce. The NSTC reflects a once-in-a-generation opportunity for the U.S. to drive the pace of innovation, set standards, and secure global leadership in semiconductor design and manufacturing. Learn more at natcast.org.

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