NIST Reveals Government Strategy to Support U.S. Semiconductor Research and Development

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The U.S. Department of Commerce's National Institute of Standards and Technology (NIST) has released a <u>paper outlining its vision and strategy</u> for a National Semiconductor Technology Center (NSTC), a key component of the research and development program established by President Joe Biden's <u>CHIPS and Science Act</u>.

Goals

The paper outlines three high-level goals for the Department of Commerce:

Extend America's leadership in semiconductor technology to provide the foundation for future applications and industries and to strengthen the U.S. semiconductor manufacturing ecosystem. Significantly reduce the time and cost of moving from design idea to commercialization through access to shared facilities, digital assets and technical expertise for advancing design, prototyping, manufacturing, packaging, and scaling of semiconductors and semiconductor-related products. Build and sustain a semiconductor workforce development ecosystem.

Opportunities for Participating Companies

For participating companies, educational institutions, laboratories, customers, suppliers, and entrepreneurs, the NSTC program includes many potential benefits. Benefits can include access to research, facilities, workforce programs, convenings, shared roadmaps, standards development, and data sets. The NSTC also anticipates that international companies will be able to participate, an important potential benefit to domestic companies in that they will be able to collaborate with and create business contacts with companies worldwide.

Further, the NSTC program is to introduce a number of planned technical programs to address the real-world technical challenges of the semiconductor industry. The NSTC groups these programs into three categories:

Technology leadership – To fund and facilitate collaborations between participants from a research and standards perspective, as well as to develop a sustainable group of leaders in the semiconductor field, among other goals. Managing assets that benefit the community – Including to develop a network of affiliated technical centers across the country, with capabilities for end-to-end fabrication for small prototyping and pilot runs, as well as experimentation with and testing of new materials and equipment. Workforce programs – To serve as a coordinating body for a semiconductor technical workforce, including scientists, engineers, and technicians, to meet the needs of employers in the semiconductor industry, to focus on recruiting, training, and retraining the semiconductor workforce.

Investment Fund

Finally, the NSTC establishes an investment fund to help emerging semiconductor

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Related Services

National Compliance and Multi-State Solutions Technology companies advance their technologies toward commercialization. The Department of Commerce expects that the NSTC will hire an investment fund manager experienced in private sector semiconductor investment and technology development to guide this effort.

Next Steps

Companies and employers in the semiconductor field wanting to participate should keep a close watch as the NSTC's plan moves toward completion. Meanwhile:

The Department seeks nominations for a selection committee that, acting independently of the Department, will select the board of trustees that will form a non-profit, which the Department anticipates will serve as the operator for the NSTC. As the Department proceeds with refining and finalizing plans for establishing the NSTC, it will continue to engage with participants broadly to ensure the needs of the community are being addressed. Later this year, the Department will work to establish the NSTC consortium and encourage the establishment of a new, purpose-built, non-profit entity with world-class leadership.

If you have questions about these developments and issues, do not hesitate to contact a Jackson Lewis attorney.

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