CHARTER OF THE NATIONAL SEMICONDUCTOR TECHNOLOGY CENTER
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

1. PURPOSE

    a. This Charter establishes the National Semiconductor Technology Center ("NSTC"). The NSTC will conduct research and prototyping of advanced semiconductor technology and grow the domestic semiconductor workforce to strengthen the economic competitiveness and security of the domestic supply chain. Further, the NSTC will promote economic and national security by supporting and extending U.S. leadership in the semiconductor ecosystem. The NSTC will achieve these goals through collaboration between public and private stakeholders to better integrate research and development across the semiconductor ecosystem.

2. AUTHORITIES

    a. Section 9906 of the Creating Helpful Incentives to Produce Semiconductors for America Act, Title XCIX of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116- 283, as amended by Section 103 of Division A, Pub. L. No. 117-167 (the "CHIPS Act"), codified at 15 U.S.C. § 4656(c).

3. COMPOSITION

    a. Members of the NSTC will include recipients of awards issued by the CHIPS Research and Development Office ("CRDO"), federal agencies with missions that support the semiconductor ecosystem, including the Department of War, the Department of Energy, and the National Science Foundation, and public and private entities with roles in the semiconductor ecosystem that CRDO invites to participate in the NSTC.

    b. CRDO will administer the NSTC.

4. FUNCTIONS

    a. <u>Supporting Advanced Semiconductor Research and Development</u>
        i. Consistent with 15 U.S.C. § 4656(c)(2)(A), the NSTC will conduct advanced semiconductor manufacturing, design and packaging research, and prototyping that strengthens the entire domestic ecosystem. The NSTC will emphasize activities related to:
            1. Semiconductor advanced test, assembly, and packaging capability in the domestic ecosystem;
            2. Materials characterization, instrumentation, and testing for next generation microelectronics;

3. Virtualization and automation of maintenance of semiconductor machinery; and
4. Metrology for security and supply chain verification.

ii. The NSTC may support these activities through awards of federal financial assistance or other authorized activities.

b. Semiconductor Ecosystem Development Investment Fund

i. Consistent with 15 U.S.C. § 4656(c)(2)(B), the NSTC will establish and capitalize an investment fund, in partnership with the private sector, to support startups and collaborations between startups, academia, established companies, and new ventures, with the goal of commercializing innovations that contribute to the domestic semiconductor ecosystem. The Investment Fund will include support for:
   1. Advanced metrology and characterization for manufacturing microchips using 3 nanometer transistor processes or more advanced processes; and
   2. Metrology for security and supply chain verification.

ii. In determining whether and how the Investment Fund should make investments, CRDO may, as appropriate, consider the perspectives of NSTC members.

iii. The Investment Fund may, as appropriate, leverage private capital or encourage additional investments that will further the strategic objectives of the Investment Fund.

c. Supporting American Semiconductor Workers

i. Consistent with 15 U.S.C. § 4656(c)(2)(C), the NSTC will work with the Secretary of Labor, the Director of the National Science Foundation, the Secretary of Energy, the private sector, institutions of higher education, and workforce training entities to incentivize and expand geographically diverse participation in graduate, undergraduate, and community college programs relevant to microelectronics. Activities to support this initiative may include:
   1. Developing and disseminating curricula and research training experiences;
   2. Developing workforce training programs and apprenticeships in advanced microelectronics design, research, fabrication, and packaging capabilities; or
   3. Initiating pilot programs, including with NSTC members.

d. Collaboration and Strategic Development

i. Consistent with 15 U.S.C. § 4656(c)(1), the NSTC shall facilitate collaboration among NSTC members to advance critical semiconductor research and development objectives that will strengthen the domestic supply chain.

ii. The NSTC shall solicit information from NSTC members regarding semiconductor research and development priorities, accomplishments, and challenges to inform the strategic objectives of the NSTC.
iii. The NSTC may convene NSTC members, develop strategies, and issue reports, as appropriate.

5. MISCELLANEOUS

a. This Charter will be reviewed annually by the Executive Director for Semiconductor Innovation and Investment (EDSII). The EDSII may make changes to this Charter at any time, provided that NSTC members are provided notice of the updated Charter.

b. This Charter does not create any substantive rights or legal obligations, transfer funds, or commit CRDO, NIST, or the Department of Commerce to expend funds.