



November 6, 2023

Re: Request for Information on Implementation of the USG NSSCET (NIST-2023-0005)

To Whom It May Concern:

On behalf of the Software & Information Industry Association (SIIA), we welcome the opportunity to provide input to National Institute of Standards and Technology (NIST) as it develops an implementation plan for the United States Government National Standards Strategy for Critical and Emerging Technology (the NSSCET).

SIIA is the principal trade association for companies in the business of information. Our members include almost 400 companies reflecting the broad and diverse landscape of digital content providers and users in academic publishing, education technology, and financial information, along with creators of software and platforms used by millions worldwide, and companies specializing in data analytics and information services.

SIIA supports the NSSCET as a roadmap for advancing U.S. leadership in international standard-setting bodies. This line of effort is as critical today as ever to promote rules of the road that support the free flow of information and technological standards that align with core democratic values, such as transparency, privacy, safety, a level playing field for U.S. and foreign companies, and the rule of law. We also support greater involvement of the U.S. government in supporting and collaborating with industry to ensure that standards are developed inclusively and with due regard for national security and national economic concerns.

With respect to the private sector, our core recommendations are for the U.S. Government to create channels to improve communication with industry around standards development and promote involvement of SMEs and startups in international standards activities through grant programs. We provide further details on these recommendations in response to the questions that follow.

General Questions

1. Are there potential benefits, opportunities, or risks associated with increased U.S. participation in standards development activities for CET?

2. What are the potential risks or implications of decreased U.S. participation in standards development activities for CET?

SIIA concurs with the NSSCET's assessment of the benefits of increased U.S. participation and downsides of decreased U.S. participation in standards development activities for CET. Standards provide critical rules of the road that shape economic growth, catalyze innovation, advance consumer growth, and protect democratic values embedded in CET. To achieve these goals in an increasingly competitive international technological landscape requires continued commitment from the U.S. private sector and meaningful participation from the U.S. Government. We are pleased that the Government has prioritized leadership in the International Telecommunications Union and encourage active participation in other bodies to ensure the United States is well represented in leadership roles.

3. What are the most important challenges faced by the private sector (i.e., industry, including startups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) when participating in standards development activities for CET, and how can these challenges be addressed?

SIIA's membership includes a mix of large private sector organizations that are directly engaged in international standards efforts and smaller organizations – small and medium sized enterprises (SMEs) and venture-backed startups – with limited direct involvement. SMEs and startups often lack resources to participate meaningfully in international standards activities. In the CET space, however, SMEs can make valuable contributions to international standards because of their front-line view of cutting-edge CET and experience implementing those solutions in the market. The U.S. Government has an opportunity to bridge the gap between the research community and market stakeholders, focusing on the reality of implementation and more effectively conveying that reality to the industry organizations who will ultimately leverage the standards.

One example, reflected in SIIA's membership, involves privacy enhancing technologies (PETs). Despite years of R&D and usage, PETs remain a relatively new market category and are being developed and implemented today by both large companies and startups. Work on international standards for PETs is in its infancy. SIIA member Enveil, a pioneer in homomorphic encryption (HE), secure multiparty computation (SMPC), and other PETs, is a venture capital-backed technology company that has unique insight on these emerging technologies – along with the needs of users – that would be invaluable to international standards efforts.

Resource challenges limit the ability of companies like Enveil to participate in international standards activities. SMEs and startups lack staff and funds to dedicate to monitoring and engaging in standards activities and traveling to standards meetings. The effect is that standards are developed without input from organizations that may be at the cutting edge of CET research, development, and application. This concern is not limited to the PET space. Standards around digital identity, for example, and facial recognition technology, may be evolving without participation from companies that have deep experience in research, development, and application and whose voices would help to improve the quality of international standards.

Below, we identify some mechanisms the U.S. Government could adopt to improve communication with a broader group of stakeholders about standards activities – such as processes, timelines, events, milestones, community engagement, and opportunities to contribute – and help to enable participation from a broader set of expert voices.

USG NSSCET Objective 1: Investment

5. How can the U.S. Government utilize Federal spending on research and development to drive technical contributions for CET standards development activities?

We commend the Department of Commerce and NIST for taking steps to prioritize international standards through the NSSCET and interagency efforts. We believe continued Federal investment in R&D is critical and support, among other things, the formal authorization and funding for the National Artificial Intelligence Research Resource (NAIRR) and fully funding the “science” part of the CHIPS and Science Act.



In addition, we recommend the U.S. Government explore the use of existing appropriations – or seek new authorization from Congress – to create targeted grant programs for SMEs and startups to participate in international standards activities. As noted above, these companies have important perspectives on CET yet often lack the resources needed to participate. Grants to enable travel, registration, and so forth – either directly to companies or to groups representing the interests of companies in a targeted manner – could be a relatively low-cost way to enhance technical contributions to CET standards development.

6. How can the U.S. Government facilitate the adoption of standards-based CET by industry stakeholders, including start-ups and small- and medium-sized enterprises (SMEs)?

Technology startups are motivated to support standards development if it serves as a force multiplier when implementing pioneering technologies in the market and drives customer adoption. In general, however, the pace of standards development for CETs often does not keep up with the advancement and usage of those technologies in the commercial space. The risk in delaying standards is that the opportunity window is narrow, and industry will continue to drive forward with development and implementation without common standards. The U.S. Government could help address this challenge by encouraging the prioritization of fast-moving markets and CETs, including AI and machine learning, ensuring standards bodies remain relevant and ensuring greater adoption of standards-based CET. True cutting-edge technologies that align with core democratic values must maintain or exceed the pace of innovation by competitors that may ascribe to different views around transparency, privacy, safety, and so on; accelerating the timeline to standards will drive that momentum forward.

USG NSSCET Objective 2: Participation

8. How can the U.S. Government increase the amount and consistency of private sector (*i.e.*, industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) engagement in standards development activities for CET?

9. How can the U.S. Government improve communications among the public and private sector (*i.e.*, industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) to address potential participation gaps in standards development activities for CET?

SIIA commends efforts by various agencies in the U.S. Government – including NIST and other agencies in the Department of Commerce, as well as the White House’s Office of Science and Technology Policy – to increase engagement with the private sector regarding standards development activities for CET. The launching of standards.gov as a resource for core information has been helpful, especially for smaller organizations. We believe additional efforts could be undertaken to expand engagement in ways that are sensitive to government resources. These efforts may include:

- Creating federal advisory committees focused on standards development in different CET areas to solicit input from private sector entities and share U.S. Government views;
- Convening regular meetings with private sector entities not directly involved in international standards activities;



- Establishing one or more federal grant programs to enable SMEs and startups to participate in international standards activities; and
- Continuing to improve mechanisms to make information publicly available for those unable to participate directly in international standards activities.

Mechanisms to improve public accessibility of information may include augmentations to standards.gov, regular briefings to stakeholders (such as private sector entities and trade associations) following key international standards meetings, a resource for SMEs and startups to understand the landscape of international technical standards, and a centralized dashboard to track CET standards activity.

9. How can the U.S. Government improve communications among the public and private sector (*i.e.*, industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) to address potential participation gaps in standards development activities for CET?

10. How can the U.S. Government foster early collaboration with private sector (*i.e.*, industry, including start-ups and small- and medium-sized enterprises (SMEs), academic community, and civil society organizations) stakeholders to identify standards for CET that would encourage market and regulatory acceptance as needed? At what stage is early collaboration most effective?

As noted in response to question 6, most private sector institutions are supportive of a body of standards, and often the private sector has extensive expertise in research, policy, and implementation that could inform better standards. It is not always transparent to those outside of research and government, however, how standards are created, what information is relevant, where CETs are in the standardization process, and what is being prioritized. Greater public clarity and communication in those areas would likely enhance private sector participation.

USG NSSCET Objective 4: Integrity and Inclusivity

17. How can the U.S. Government work with private sector stakeholders to more effectively coordinate with international partners and reinforce private sector-led standards development activities for CET?

SIIA encourages the U.S. Government to work with trade associations such as SIIA that represent companies in multiple jurisdictions to improve coordination with international partners and involve a broader group of private sector stakeholders in these conversations.

In addition, we are pleased that Section 11(b) of Executive Order 14110 prioritizes the development of a global engagement plan for advancing AI standards around nomenclature, terminology, best practices, trustworthiness, verification, assurance, and risk management. We will write separately with feedback from our membership to help inform the Department's development of the global engagement plan.

Thank you for the opportunity to provide input on this important undertaking. Please contact me at plekas@siia.net with any questions.

Sincerely, Paul Lekas

Senior Vice President for Global Public Policy & Government Affairs Software & Information Industry Association

