

U.S. GOVERNMENT NATIONAL STANDARDS STRATEGY FOR CRITICAL AND EMERGING TECHNOLOGY (USG NSSCET)

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The USSS sets a strategic vision to support **U.S. competitiveness, innovation, health and safety, and global trade**, guiding how the U.S. develops and uses standards, and participates in the international standards development process.

The U.S. standards system is based on a **public-private partnership** and embraces the participation of all affected stakeholders, making it dynamic, flexible, and responsive to market needs.

USG NSSCET OVERVIEW

NIST

Greater Investment in Pre-Standardization Research

- Increase R&D funding for CETs
- Support development of standards that address risk, security, and resilience

Participation in Standards Development

- Remove and prevent barriers to private sector participation
- Improve communication between public and private sector
- Enhance USG representation and influence in international standards governance and leadership

Workforce Development

Ensuring Integrity in Standards Development

- Deepen standards cooperation with partners and allies
- Facilitate broad representation in standards development

View the Strategy: www.nist.gov/standardsgov/usg-nss



UNITED STATES GOVERNMENT NATIONAL STANDARDS STRATEGY FOR CRITICAL AND EMERGING TECHNOLOGY

MAY 2023



Report on NIST Leadership for the
Implementation of the U.S. Standards
Strategy for Critical and Emerging
Technology

Visiting Committee on Advanced
Technology
of the
National Institute of Standards and
Technology

U.S. Department of Commerce

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This document has been adopted by the NIST Visiting Committee on Advanced Technology (VCAT) and was produced by the NIST VCAT Subcommittee on U.S. International Standards Development Activity in accordance with the Subcommittee's [charge](#). The views expressed in this document do not necessarily reflect the views or policies of NIST or the U.S. Government.

The Visiting Committee on Advanced Technology published a report in February 2024 providing 37 strategic recommendations for NIST and others in the USG to effectively implement the USG NSSCET.

The full report can be accessed here:

https://www.nist.gov/system/files/documents/2024/04/09/VCAT%20Subcommittee%20on%20International%20Standards%20Report%202024_FINAL_1.pdf

ROADMAP TO STRATEGY IMPLEMENTATION



*Dates are approximate

Immediate Actions:

Greater Investment in Pre-Standardization Research **R37**

- Coordinate and utilize existing and future budget submissions to increase R&D funding for CETs **R2, R4, R9, R12, R19, 33**
- Support development of standards that address risk, security, and resilience

Participation in Standards Development **R37**

- Track and support coordination to remove and prevent barriers to private sector participation **R4**
- Improve communication between public and private sector **R20**

Workforce Development

Ensuring Integrity in Standards Development **R25**

- Work with existing and future budget submissions to a multi-year investment for the entire lifecycle of standards development from pre-standardization research through publication and adoption including test, certification and conformity assessment.
- Facilitate broad representation in standards development

*Associated VCAT Report Recommendations shown as R#

U.S. GOVERNMENT NATIONAL
STANDARDS STRATEGY FOR CRITICAL
AND EMERGING TECHNOLOGIES
(USG NSSCET):

IMPLEMENTATION ROADMAP

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View the Implementation Roadmap:
https://www.whitehouse.gov/wp-content/uploads/2024/07/USG-NSSCET_Implementation_Rdmap_v7_23.pdf

Actions for Sustained Implementation Outcomes

Outcome 1: Increase investment in CET R&D and standardization to sustain U.S. technical leadership
[R5](#), [R7](#), [R8](#), [R16](#)

Outcome 2: Increase support for Federal programs to remove barriers and promote U.S. stakeholder participation in international standards development [R6](#), [R34](#), [R35](#)

Outcome 3: Enhance coordination across USG departments and agencies to sustain and grow participation in standardization [R3](#)

Outcome 4: Expand communication, information sharing, and other cooperative efforts between USG and private sector

[R10](#), [R11](#), [R13](#), [R14](#), [R17](#), [R18](#), [R24](#), [R26](#), [R27](#), [R29](#), [R30](#), [R31](#)

Outcome 5: Enhance educational efforts to inform current and future standards leaders [R20](#), [R31](#), [R32](#)

Outcome 6: Enhance USG and like-minded nations' representation and sustain influence in international standards system [R21](#), [R22](#)

Outcome 7: Enhance academia engagement providing critical partnerships to sustain the standards innovation ecosystem of the world [R15](#), [R28](#), [R36](#)

VCAT RECOMMENDATIONS FULLY IMPLEMENTED (R11, R13)



Align, coordinate and sustain support for the scale and diversity of the U.S. standards system which has been pivotal in the overall competitiveness of the U.S. economy. [VCAT R1, R17, R27](#)

Advocate for the global standards development principles agreed to in the World Trade Organization's Technical Barriers to Trade (WTO TBT) Committee decision. [R3, R25](#)

Leverage existing programs in public and private sectors to establish **standards as a critical component to the innovation ecosystem** of the world. [R4, R34](#)

Strengthen partnerships with industry and academia to meet the dynamic needs of CET standards. [R4, R10](#)

Showcase good practices and promote experience sharing across public and private sectors. [R23, R27](#)

IMPLEMENTATION PRIORITY: PUBLIC PRIVATE COORDINATION MECHANISMS



- **Exploring the use of the Small Business Innovation Research program** as a scalable example of how to leverage existing mechanisms to accelerate standards development and participation. **VCAT Recommendation R33**
- **A request for information** to solicit feedback on implementation and information on existing standards recognition programs and best practices in workforce development <https://www.federalregister.gov/documents/2024/10/08/2024-23174/existing-awards-and-recognition-programs-for-standards-development-and-best-practices-for-standards> Implementation will take time, and the feedback we receive will be made public to support our collaborative work with the U.S. standards community. **FR Doc. 2024-23174. VCAT Recommendation R32**
- NIST hosted a **Standards Forum** on September 11 <https://www.nist.gov/news-events/events/2024/09/nist-standards-forum>. **VCAT Recommendations on communication and coordination**



\$15M Center of Excellence for Standardization announced October 15, 2024

Build and maintain strong partnerships between NIST and the private sector to support US engagement in international standardization

- pre-standardization engagement
- workforce capacity building
- information and data sharing hub
- collaborative pilot programs



- Opportunity to **combine best of government and private sector engagement, training, and data management tools** to accelerate broad U.S. participation in international standards in emerging technical areas
- Leverages strong ongoing NIST programs that deliver **standards training and track standards engagement** across the Federal government
- Establishes **collaborative pilots** to demonstrate the effectiveness, integration, and tailoring of developed tools for specific technical audiences

DISCUSSION: FOSTERING SUSTAINED, HOLISTIC SUPPORT



Sustained, long-term support for standards engagement is critical for CETs, including at early stages of research.

- Public-private investment is critical for implementing the roadmap. **How can we collectively advocate for sustained investment in NIST core programs that fundamentally underpin standards for CETs?**
- Case studies and other messaging can assist with communication challenges regarding the impact and importance of standards. **How can NIST help ensure these messages are reaching the right levels of leadership?**
- Global standards development is dynamic and increasingly challenging to navigate. **How should NIST prioritize its efforts?**

www.nist.gov/standardsgov/usg-nss

The Standards Information Center provides a gateway to navigating the dynamic U.S. and international standards landscape



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The USA Enquiry Point for the World Trade Organization (WTO)



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