

Bolstering American Leadership in Standards

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To ensure U.S. global dominance in the industries of the future, we need to act now to advance the President's stated agenda to secure the U.S. position as the unrivaled world leader in critical and emerging technologies (CETs)

NIST is committed to advancing American innovation and industrial competitiveness through four interdependent strategic priorities:

1. Accelerate Innovation in Critical and Emerging Technologies of the Future
2. Bolster American Leadership in Standards
3. Accelerate the Commercial Adoption of U.S. Innovations
4. Build 21st Century Research Infrastructure to Unleash CET Innovation

Global Standards Landscape



Standards provide **a basis of trust** for American consumers and international trade

Standards are globally recognized as critical to national security and economic **competitiveness**

Nation-states and affiliates are engaged in driving **competitive advantage in trade** through international standardization

There are **strategic approaches** to investments, alliances, regulations, and coordinated engagement in standardization

There is **a race** to establish global dominance in critical and emerging technologies

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Challenges to the “status quo” standards ecosystem include:



Concerns about **PRC investments and influence** in international standards activities in key CETs



Concerns about **EU regulations driving European standards** that may disadvantage US companies in EU markets



Concerns about **the rapid pace of CET developments** and the need for voluntary consensus standards processes to **keep pace**

U.S. Standards Landscape



The U.S. standards system is unique compared to other countries; it is built upon a voluntary, decentralized, and private sector-led open standards development process

Federal government works within the private sector led system, by:

- Contributing to the development of standards by the private sector
- Ensuring that standards are not used as technical barriers to trade by trading partners
- Using standards in combination with procurement, regulatory or policy actions
- Addressing competition-related aspects of standards-setting activities



Standards Participation Models



National Participation

One country,
one vote

Multilateral and treaty-based



National delegation
Independent, non-governmental



Direct Participation

Individual or organizational
participation

Multi-stakeholder and
membership-based non-profits

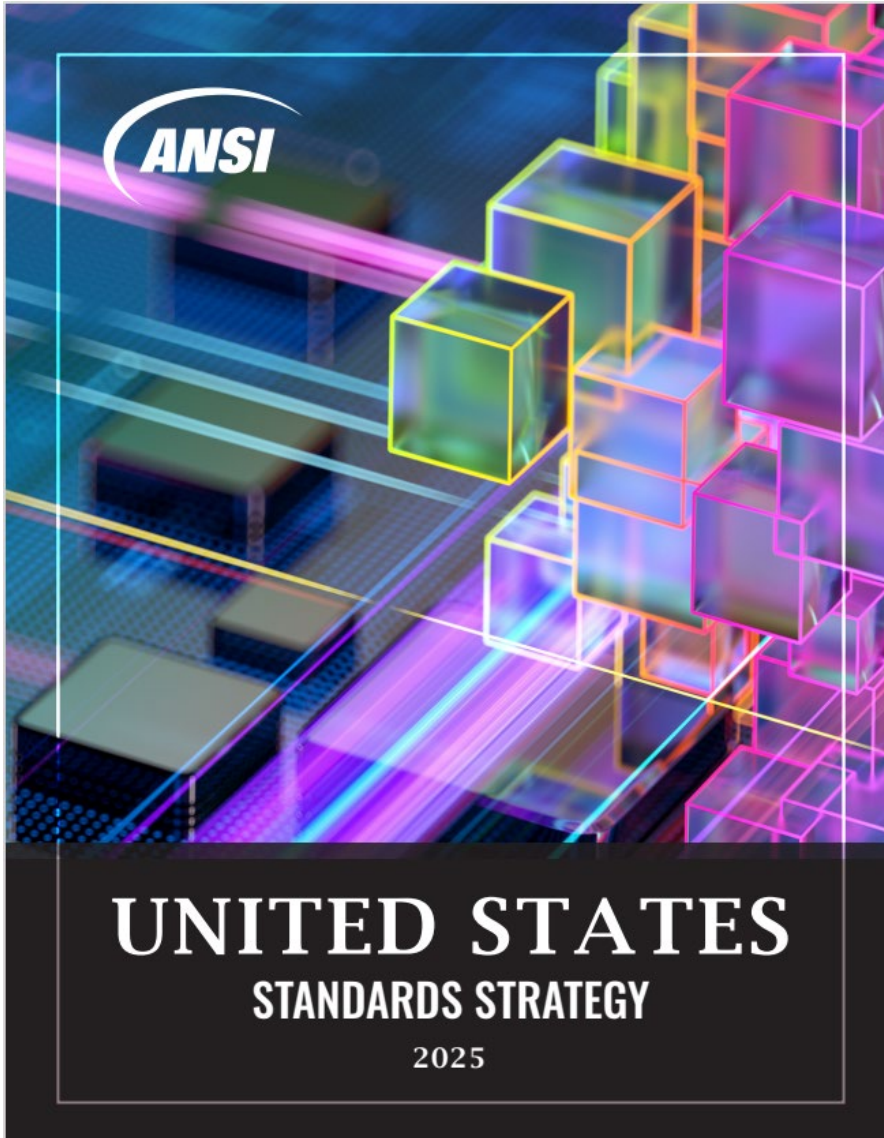


consortia

Structure, participation,
and process can vary

Often centered around fast-moving
emerging ICT, open source



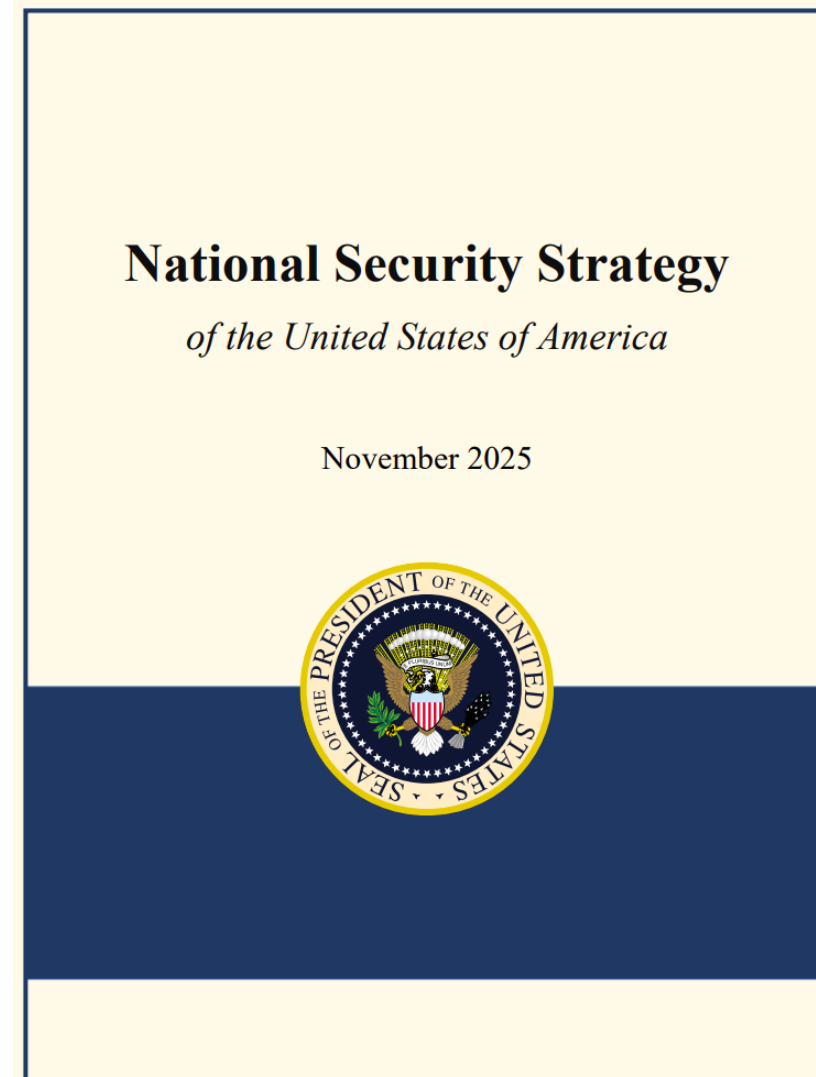


The 2025 U.S. Standards Strategy Outlines Four National Objectives:

1. Strengthen our commitment to international standards
2. Demonstrate the broad value of standards
3. Make standards development more efficient
4. Address both opportunities and challenges head on

“We want to ensure that U.S. technology and U.S. **standards**—particularly in AI, biotech, and quantum computing—drive the world forward.

These are the United States’ *core, vital* national interests.”





Federal Coordination Role

- President's Principal Adviser on Standards Policy
- United States National Metrology Institute
- Coordinator for federal agency implementation of the National Technology Transfer and Advancement Act (NTTAA)
- Chair of the Interagency Committee on Standards Policy (ICSP)



Technical Expertise & Industry Engagement

- Provide the science and measurement underpinning for standards
- Participate and lead in standards development as technical experts
- Strengthen public-private partnership, e.g., through MOU with ANSI
- ASCET Center of Excellence



Facilitating Trade

- National Voluntary Laboratory Accreditation Program (NVLAP)
- Telecommunications Mutual Recognition Agreements (MRAs)
- U.S. Enquiry Point for World Trade Organization Technical Barriers to Trade Agreement
- Provide expertise to trade-related discussions



- Technical excellence
- Integrity
- Uncompromising
- Rigorous
- Unbiased
- Industry focused
- Non-regulatory

NIST will continue to champion the United States' industry-led, market-driven, and voluntary approach to international standards development and will accelerate:

- U.S. engagement and leadership in international standards for CETs
- Development and adoption of science-based standards for CETs to promote U.S. trade
- Strategic NIST engagement, participation, and leadership in international standards bodies
- Standards policy coordination across the U.S. government

VCAT Presentation June 10, 2025



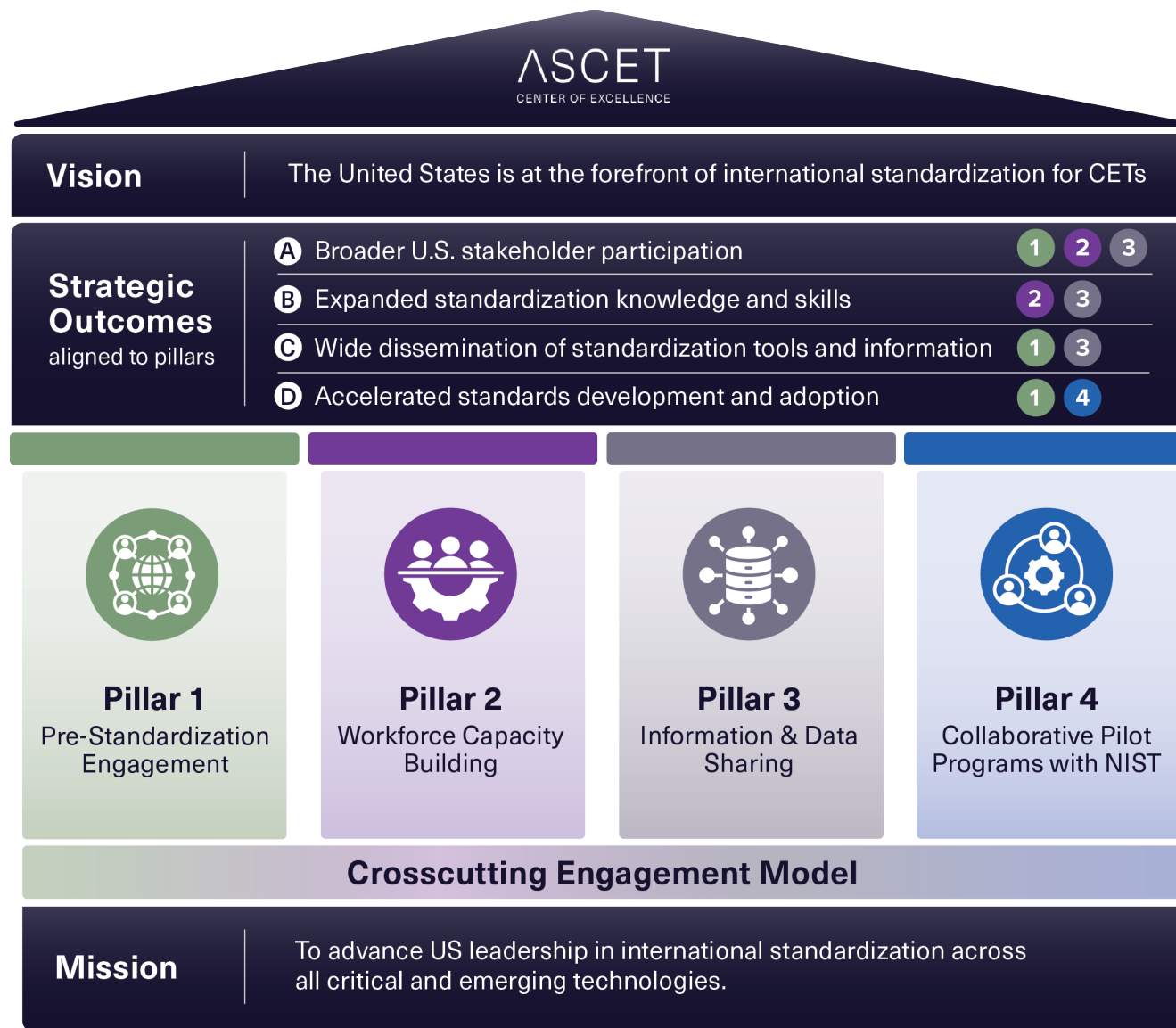
Establish and Maintain a Standardization Center of Excellence



To support U.S. engagement in international standardization for critical and emerging technologies (CETs) that are essential to U.S. economic competitiveness and national security.



Advancing Standardization for CETs (ASCET)



Recent ASCET Activities and Plans



Encourage and support private sector-driven participation

- Standardization environmental scans – AI, quantum, biotechnology are live (more *in development*)
- Standardization readiness framework tool – *in development*



Create a pipeline of standards-ready professionals

- Standards 101 modules *in development*
- Resource gap analysis *in development*



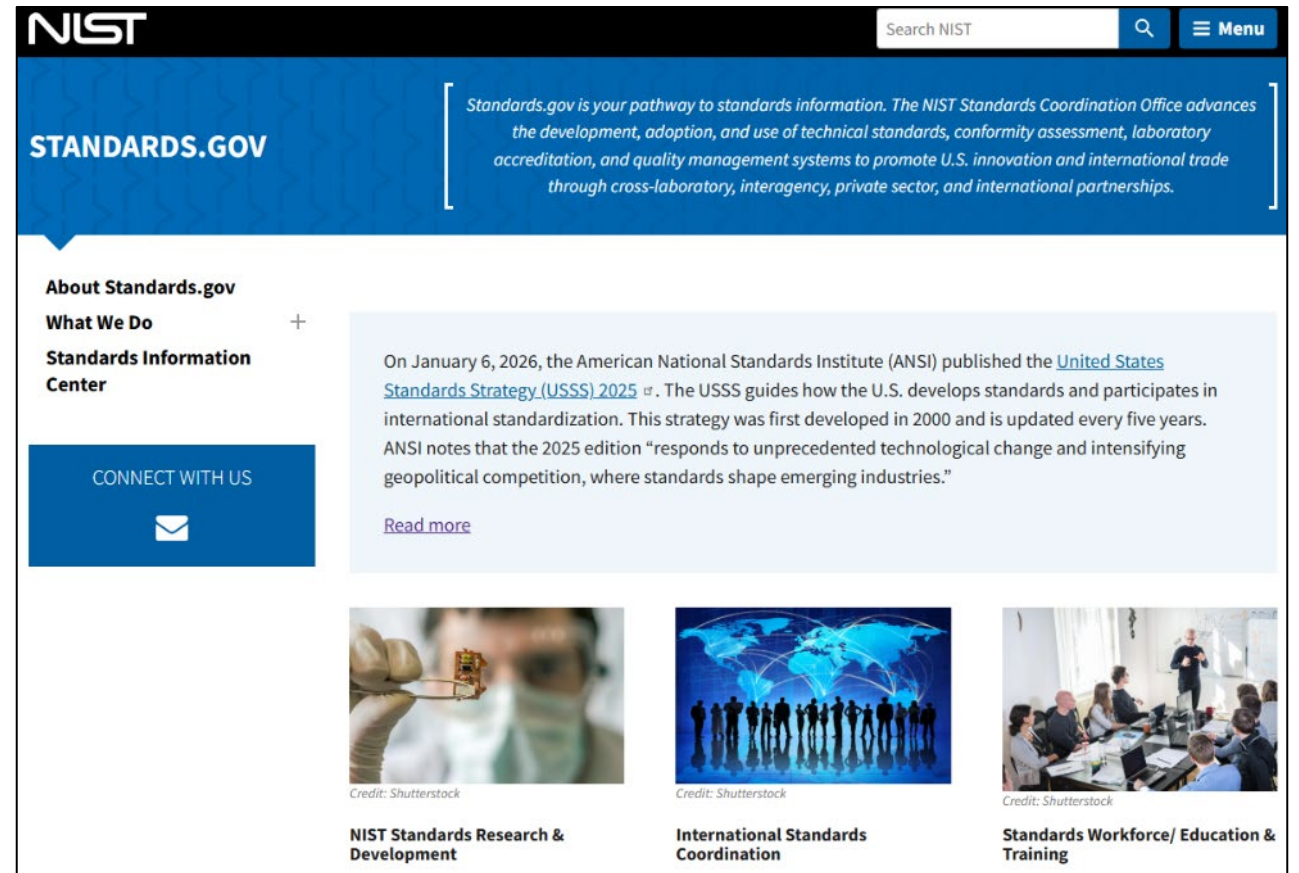
Be a central resource for standardization information

- Information and Data Sharing Hub - initial version live
- Hub 2.0 *in development*

Cross-cutting engagement: strategic communications and outreach, annual ASCET Convening

Milestones for 2026-2027 include:

- ✓ Overhaul standards.gov to highlight key resources and impacts of federal engagement in standardization
- ✓ Launch database and continue to publish biweekly newsletters on international standards issues to over 1,500 federal employees
- ✓ Provide timely standards landscape services to NIST laboratories to support strategic engagement
- ✓ Develop case studies to illustrate impact of Federal engagement in standardization



New NIST Emerging Technologies Standards Engagement (NETSE) Program



The NETSE program supports NIST staff proposals that address international standards for CETs, for example:

Pre-standardization efforts

- Measurement science research project
- Engaging stakeholders to prioritize international standards needs (white paper, workshop, etc.)
- Developing other information that addresses an international standardization gap

Standardization efforts

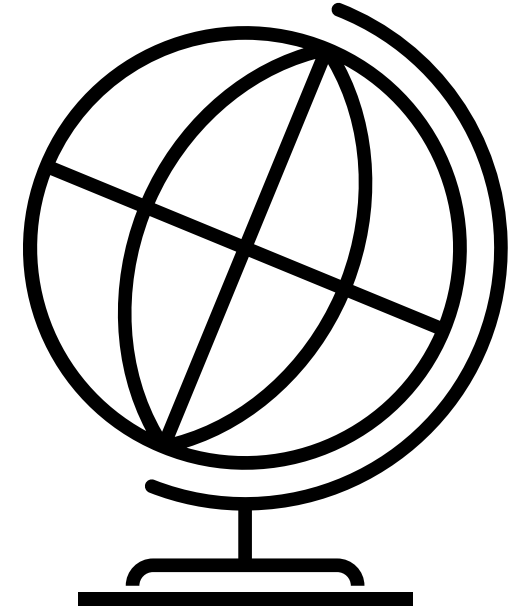
- Structuring, creating, engaging with or implementing a new international standardization entity (e.g., U.S. Technical Advisory Group)
- Creating/maintaining an international standardization roadmap by convening relevant stakeholders

Post-standardization efforts

- Creating implementation programs to integrate new or existing international standard(s) into broad-based adoption and use in practice
- Supporting the development, strengthening, and/or implementation of conformity assessment schema for a CET area

NETSE stems from an increase in appropriations NIST received in FY 2023 to execute a forward-leaning initiative that will strengthen U.S. leadership in international standards development for CETs

- World Trade Organization Technical Barriers to Trade (WTO TBT) Committee
- U.S. Designating Authority for Mutual Recognition Arrangements for telecommunications equipment
- National Voluntary Laboratory Accreditation Program (NVLAP) third-party accreditation body
- Bilateral and multilateral cooperation



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<https://www.nist.gov/director/strategic-priorities>

Questions for VCAT:

Are we focused in the right areas?

What advice do you have for how we can ensure success?

What are we missing?

Thank You



NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE