March 14, 2025

Re: ANSI Input into FR Doc.2025-02305, Development of an Artificial Intelligence (AI) Action Plan

On behalf of the U.S. private-sector-led voluntary standardization community, the American National Standards Institute (ANSI) welcomes the opportunity to provide input into the development of the Artificial Intelligence (AI) Action Plan ("Plan"). Our recommendations respond to the Request for Information from the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO), National Science Foundation, on behalf of the Office of Science and Technology Policy (OSTP), FR Doc. 2025-02305.

As coordinator of the U.S. private-sector-led standardization system, ANSI's mission is to enhance the global competitiveness of U.S. business and U.S. quality of life. Through our membership, we represent the interests of more than 270,000 companies and organizations and 30 million professionals worldwide.

ANSI supports OSTP's efforts to identify priority policy actions to sustain and enhance America's AI leadership and ensure that private-sector AI innovation is not hampered by unnecessarily burdensome requirements. Effective, voluntary standards and conformity assessment solutions are vital to advancing rapidly-evolving, cross-cutting, and transformative technology areas such as AI—demanding leadership, investment, and public-private collaboration.

To balance opportunities and risks in AI deployment, we recommend that the new AI Action Plan prioritize private-sector-led standardization efforts that involve the participation of all affected stakeholders, including government. These efforts include developing and deploying technical and safety standards and related conformity assessment solutions that address key areas: AI risk hierarchies, acceptable risks, and tradeoffs; data quality, provenance, and governance; security; and benchmarks, testing, monitoring, and risk management. Where appropriate, public-private partnerships can speed deployment of new AI applications and systems.

For consideration in the Plan, we offer details on the current state, plans, challenges, and opportunities for engagement in AI standardization and share input on characteristics of successful standards-driven public-private partnerships.

U.S. Standards System: a Driver of Innovation

For more than a century, the private-sector-led U.S. standards system has produced results that are the envy of the world—empowering the performance, safety, security, and interoperability of nearly every product, process, and service. Importantly, the standards that result are created through private-sector-led processes and reflect marketplace needs. Where the U.S. government determines that regulations are necessary, it will very often be able to incorporate by reference a voluntary consensus standard into law at no cost to the taxpayer, allowing for realization of efficiencies.

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Notably, these savings are the result of Congressional wisdom in adopting the National Technology Transfer and Advancement Act of 1995, pursuant to which Congress directed government agencies to use technical standards that are developed or adopted by voluntary consensus standards wherever possible (avoiding development of unique government standards), and to participate with such bodies in the development of relevant standards.

The continued health and resilience of the U.S. economy is directly related to investment and confidence in our standards system. As emerging technologies such as AI reshape global markets, collaboration between the U.S. government and industry in standards-setting is critical to advancing our national interests and U.S. global leadership.

AI is not just one technology, but rather, a variety of software- and hardware-enabling technologies (e.g., machine learning, deep learning, knowledge representation) that can be applied in various ways in a potentially unlimited number of applications across industries. In their breadth, complexity, and versatility, today's advanced AI models (such as Large Language Models, or LLM) are unlike previous technologies and systems. The models are moving targets because they are developing rapidly through breakthroughs in machine learning, continuous learning, and additional data. As such, AI models require extensive and continuous monitoring by developers, deployers, policymakers, and experts.[1] Robust standards and conformity assessment programs can play an important role in managing the risks of AI models without hampering private-sector innovation.

The Value and Contributions of AI Standards-driven Public-Private Partnerships

The U.S. has a long history of standards-driven public-private partnerships. When properly designed and executed, these partnerships can accelerate the assessment of standardization needs in a particular industry or technology area, and demonstrate innovative, high-impact approaches to address those needs. This creates efficiencies for both government and private-sector stakeholders. Critical to the success of public-private partnerships are: having a clear mission addressing a well-defined problem, motivated partners, a governance framework, mechanisms to engage other organizations (including standards developers), and committed resources.

In July 2024, ANSI hosted a brainstorming session[2] on challenges related to artificial intelligence /machine learning involving stakeholders from industry, standards development organizations, government, and academia. The session was part of a larger project examining the use of public-private partnerships to support standards development, the role of government in the related activities, key elements of effective collaborative mechanisms, and information sharing needs for addressing standardization for key technologies. Ultimately, the examination resulted in a report, *Enabling Standards Development Through Public-Private Partnerships*, which outlines five standards-driven public-private partnership models, several associated use cases, and notional concepts of standards readiness.

AI Standards-Related Activities

Standards-related activities relevant to AI and AI Leadership are detailed below:

Assessing and Managing AI Risk and Safety: A Voluntary, Standards-Based Approach

[1] See https://www.brookings.edu/articles/network-architecture-for-global-ai-policy/

[2] The effort was performed under a cooperative agreement with the National Institute of Standards and Technology (NIST).

ANSI recommends that the AI Action Plan take into account the flexible approach to AI risk management outlined in the National Institute of Standards and Technology's (NIST) AI Risk Management Framework (AI RMF). Developed with extensive private-sector input, the AI RMF is not intended to be a one-size-fits-all approach; rather, it is adaptable to varying levels of risk. It is intended for voluntary use and to improve the ability to incorporate trustworthiness considerations into the design, development, use, and evaluation of AI products, services, and systems. NIST also published a companion NIST AI RMF Playbook along with an AI RMF Roadmap, AI RMF Crosswalk, and various Perspectives. The RMF points to voluntary standards for important details, and elements of the RMF are reflected in existing ISO/IEC standards.

In July 2024, NIST released NIST-AI-*600-1, Artificial Intelligence Risk Management Framework: Generative Artificial Intelligence Profile*. The profile can help organizations identify unique risks posed by generative AI and proposes actions for generative AI risk management that best aligns with a user's goals and priorities. The Framework and Profile are supported by voluntary standards.

Cross-Cutting Global AI Standards Activities

Broader participation in developing AI standards through global bodies like ISO and IEC assures these standards address diverse needs across different regions and contexts. ANSI is the official U.S. representative to ISO and, through ANSI's U.S. National Committee, the IEC.

ISO and IEC are private, voluntary international organizations that publish a wide range of international standards in the area of artificial intelligence. This includes the cross-cutting work of ISO/IEC Joint Technical Committee 1 (JTC 1), *Information Technology*, Subcommittee 42, *Artificial Intelligence,*[3] as well as work in a variety of technical committees focusing on specific sectors. Within the scope of JTC 1/SC 42, published standards address concepts and terminology; management systems; governance implications on the use of AI; guidance on risk management; overviews of trustworthiness, bias, ethical and societal concerns; and assessments of robustness. The U.S. chairs SC 42, and ANSI serves as Committee Manager.

It is also worth noting that many AI-related specifications are being or will be developed in industry consortia; implementation activities often take place under the umbrellas of consortia or fora. These activities include the development and deployment of datasets, benchmarks, reference implementations, implementation guidance, verification and validation tools, and conformity assessment procedures.
Important work is being done in a wide range of industry-led consortia and other informal groups, including MLCommons, AI Alliance, Digital Trust Forum, Responsible AI Institute, the Partnership for AI, and Frontier Model Forum.

Sector-Focused AI Standards and Tools

In industries that are coming to rely heavily on AI, sector-specific standards projects are beginning to emerge. We note that such work is currently underway or planned by a number of ANSI-accredited standards developing organizations whose work is recognized globally. Some of this work is intended to result in American National Standards (ANS) or to be submitted to ISO or IEC committees for approval as international standards.

[3] See https://www.iso.org/committee/6794475/x/catalogue/p/0/u/1/w/0/d/0 for the complete work program of SC 42.

To advance U.S. standardization goals in AI, ANSI is pleased to offer assistance to OSTP in engaging U.S.-based standards developers on sector-specific AI standards work—including but not limited to ANSI-accredited standards developers and U.S.-headquartered industry consortia, as well as groups or individuals working on behalf of the U.S. through Technical Advisory Groups (TAGs) to ISO and IEC.

See Annex A for a listing of the organizations that submitted affirmative responses to ANSI regarding AI-related work.

Recommendations for Prioritizing Federal Engagement in AI Standardization

The effectiveness of the U.S. standardization system in enabling innovation depends on continued private-sector leadership and public sector engagement. In our market-driven system, the federal government helps to enable AI innovation in several ways: foundational research (both sector-specific and cross-sectional); coordination; education; and participation in standards development as one of many stakeholders.

When engaging in standards development activities, agencies should ensure effective intra- and inter-agency coordination. They should take into account the impact of their standards-related choices on innovation and the global competitiveness of U.S. enterprises. To the extent feasible and appropriate, agencies should provide continuous support for their technical experts' participation and leadership activities in mission-critical standards-setting activities to maintain adequate resource levels throughout the standards development lifecycle.

ANSI recommends that the federal government continue to prioritize engagement in the development of AI technical standards and tools that have broad, cross-sectoral applications. These include terminology standards, data reference architectures, safety and security-related standards, and standards related to bias in AI systems. Having these types of standards and tools in place will enable more rapid development of application-specific standards and tools as follow-on activities.

In the federal space, potential applications of AI technology vary as widely as individual federal agency missions. NIST can assist in coordinating across the federal enterprise to identify and prioritize the federal government's AI standards needs. This can help generate greater support for such standards development efforts.

About the American National Standards Institute

As coordinator of the U.S. private-sector-led standardization system, ANSI's mission is to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.

ANSI is a federation whose members are government agencies, trade associations, standards developing organizations, professional societies, companies, academic and international bodies, and consumer organizations. Through our membership, ANSI represents the interests of more than 270,000 companies and organizations and 30 million professionals worldwide.

ANSI is the sole U.S. representative to the International Organization for Standardization (ISO), and, through the U.S. National Committee (USNC), to the International Electrotechnical Commission (IEC).

ANSI promotes the use of U.S. standards internationally, advocates U.S. policy and technical positions in international and regional standards organizations, and encourages the adoption of international standards as national standards where they meet the needs of the user community.

ANSI is active in a number of public- and private-sector partnership activities across the globe that provide U.S. industry engagement opportunities with emerging economies on standards, trade, infrastructure, and good regulatory practices.

ANSI also initiates standardization collaboratives, partnerships, and workshops in areas vital to U.S. interests and priorities—often in cutting-edge industries and emerging technology sectors.

For more information, visit www.ansi.org.

Annex A: Affirmative Responses from ANSI Accredited Standards Developers (ASDs) with AI-Related Sector-Focused Work

Alliance for Telecommunications Industry Solutions
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Sharon Stanford (stanfords@ada.org)

American Nuclear Society
Pat Schroeder (pschroeder@ans.org)

American Society for Nondestructive Testing
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American Society of Safety Professionals
Tim Fisher (TFisher@ASSP.org)

American Type Culture Collection
Amber Day (aday@atcc.org)

Association for the Advancement of Medical Instrumentation
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Canadian Standards Association
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Consumer Technology Association
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Dental Standards Institute
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Electrical Apparatus Service Association
Mike Howell (mhowell@easa.com)

Healthcare Standards Institute
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Haven Boisjoly (hboisjoly@hsi.health)

Human Factors and Ergonomics Society
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