



July 19, 2019

Elham Tabassi  
National Institute of Standards and Technology 100  
Bureau Drive, Stop 2000  
Gaithersburg, MD 20899

Via email to: ai\_standards@nist.gov

**Re: A Plan for Federal Engagement in AI Standards**

Dear Ms. Tabassi:

BSA | The Software Alliance appreciates this opportunity to provide feedback in response to the National Institute of Standards and Technology's (NIST's) Request for Public Comment regarding the draft Plan for Federal Engagement in AI Standards (Draft Plan).<sup>1</sup> BSA is the leading advocate for the global software industry.<sup>2</sup> Our members are at the forefront of software-enabled innovation that is fueling global economic growth and advancing the development and deployment of Artificial Intelligence (AI).

As global leaders in the development of cutting-edge technologies, BSA members recognize the important role that technical standards and benchmarks can play in promoting trust and confidence in new technologies by establishing baseline measures for quality assurance, facilitating interoperability, promoting best practices, and enabling collaboration. Standards can also help unlock marketplace efficiencies by establishing a common framework of understanding between developers and consumers of technologies.

BSA appreciates NIST's effort to develop a Draft Plan and strongly supports its recommendation that

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<sup>1</sup> "U.S. Leadership in AI: A Plan for Federal engagement in Developing Technical Standards and Related Tools," (July 2, 2019) [hereinafter "Draft Plan"]  
[https://www.nist.gov/sites/default/files/documents/2019/07/02/plan\\_for\\_ai\\_standards\\_publicreview\\_2july2019.pdf](https://www.nist.gov/sites/default/files/documents/2019/07/02/plan_for_ai_standards_publicreview_2july2019.pdf).

<sup>2</sup> BSA's members include: Adobe, Akamai, Apple, Autodesk, Bentley Systems, Box, Cadence, CNC/Mastercam, DataStax, DocuSign, IBM, Informatca, Intel, MathWorks, Microsoft, Okta, Oracle, PTC, Salesforce, ServiceNow, Siemens PLM Software, Sitecore, Slack, Splunk, Symantec, Trend Micro, Trimble Solutions Corporation, Twilio, and Workday.

the Federal government “should commit to deeper, consistent, long-term engagement in AI standards development activities to help the United States to speed the pace of trustworthy AI technologies.”<sup>3</sup> Because much of this activity is occurring within international standards development organizations (SDOs), such as the International Organization for Standardization (ISO) and Institute of Electrical and Electronics Engineers (IEEE), we agree that it is critical for the US government to “strategically increase participation” in these processes<sup>4</sup> with the ultimate goal of ensuring that they support the development of trustworthy AI and that they are informed by the broadest possible range of US stakeholders. To that end, we offer below several recommendations that should be incorporated into the Draft Plan.

While we support the Draft Plan’s commitment to heightening US government engagement with SDOs, we are concerned that it lacks any specific process for coordinating that engagement with non-federal stakeholders. **As the Draft Plan is finalized, it is critical to include a formal mechanism for public stakeholders (e.g., industry and the research community) to receive updates and provide inputs to help inform US government participation in international standards development processes.** A formal mechanism, such as a working group or technical advisory committee, that allows the US government to report on developments within SDOs and the level of US engagement — monitoring, participating, influencing, or leading — would not only enable US industry stakeholders to provide more valuable feedback, but importantly pave the way for greater visibility and transparency throughout the entire process. It may be worthwhile for instance, to consider whether there is a role for the designated Standards Coordinator in overseeing engagement with industry through a working group.

Further, the **Draft Plan would benefit from additional detail about how the US government intends to prioritize its participation with international SDOs**, including ISO and IEEE. As the Draft Plan acknowledges, there are a large number of AI-related standards currently under development. To ensure that US interests are adequately represented, the Draft Plan should include a roadmap for how the US government plans to engage with ISO, IEEE, and other SDOs, as well as a mechanism to report on the level of federal engagement and relevant developments to industry stakeholders.

Finally, as noted in our prior submission, ensuring that AI systems are trustworthy requires a lifecycle approach to risk management. Issues that may impact the trustworthiness of an AI system can arise during multiple stages of the AI system lifecycle, including when an AI system is being designed, when its training datasets are constructed, when its models are defined and trained, when it is tested, and after it has been deployed. Individual standards and benchmarks will play an important role in mitigating specific risks that may arise during discrete phases of the AI lifecycle. While individual standards and technical tools can help mitigate specific risks during discrete phases of AI development, there is an opportunity to begin developing a more holistic framework for managing risks across the AI lifecycle. To that end, **NIST should consider convening a multistakeholder process for the purpose of developing an “AI Lifecycle Risk Management Framework.”** The development of an AI Lifecycle Risk Management Framework would enable stakeholders to identify a voluntary, consensus-based set of standards, guidelines, best practices, methodologies, procedures, and processes to cost-effectively mitigate risks that AI systems may pose. By organizing such a framework around the specific phases of the AI lifecycle,

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<sup>3</sup> Draft Plan at pg. 16.

<sup>4</sup> Id. at pg. 17.

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NIST could help stakeholders (including designers, deployers, and users of AI systems) identify the range of existing standards, system architectures, governance processes, technical tools, and best practices that can be employed for the purposes of mitigating specific risks and promoting trustworthiness.

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We appreciate the opportunity to provide our perspective on this important endeavor and hope to serve as a resource as you work to finalize the Draft Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Christian Troncoso". The signature is written in a cursive style with a large initial "C".

Christian Troncoso  
Director, Policy