
Docket Number: 230818–0199

COMMENTS OF THE ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY SOLUTIONS

The Alliance for Telecommunications Industry Solutions (ATIS) submits these comments in connection with the National Institute of Standards and Technology’s (NIST) draft Implementation Roadmap (Draft Roadmap)1 for the U.S. Government National Standards Strategy for Critical and Emerging Technology (USG NSSCET).2

I. INTRODUCTION

ATIS greatly appreciates the Draft Roadmap’s incorporation of many of the recommendations made by ATIS, and other like-minded commenters, in response to the Request For Information for implementing the USG NSSCET.3 In particular, ATIS commends the Draft Roadmap’s recognition that “leveraging the contributions of private sector innovators and government supported research and development has fueled competitiveness and technological progress to the benefit of the U.S. and global economy.”4 Likewise, the USG’s commitment to standards development processes built on transparency, private sector leadership, and

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4 Draft Roadmap at 4.
stakeholder engagement that will strengthen our economic and national security in the dynamic global landscape, is greatly welcomed.5

A private sector-led, transparent approach to standards development, built on market-driven outcomes – an approach long supported by U.S. policy – unquestionably has proven to be most effective in driving U.S. standardization leadership and resulting innovation and competitiveness.6 This has been especially true in connection with ATIS’ efforts to advance standardization of many critical and emerging technologies (CET), including those relating to generations of cellular technologies, quantum, cybersecurity, smart cities, uncrewed aerial vehicles, artificial intelligence-enabled networks, distributed-ledger technologies, user-controlled privacy using self-sovereign identity, artificial intelligence network applications, and others.7

Thus, ATIS strongly endorses the Draft Roadmap’s proposed objectives of, among others:

- Increasing funding for pre-standardization R&D and standards participation activities;8
- Achieving greater recognition and support for US-led standards development, including by facilitating the U.S. as the locus for standards development;9 and
- Enhancing a STEM workforce.10

If these and the Draft Roadmap’s other objectives are to be met, however, as ATIS has previously commented, USG must assiduously avoid government overreach, as exemplified by the top-down approaches that other governments have recently taken, or risk inhibiting effective

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5 Id.
6 See ATIS RFI Comments at 4 and nn.8 & 9.
7 See id at 2-3. ATIS’ efforts have included its role as the North American Organizational Partner in 3GPP and its stewardship of the Next G Alliance, which promotes U.S. leadership in 6G.
8 See ATIS RFI Comments at 12-15; Draft Roadmap at 10.
9 See ATIS RFI Comments at 16-17; Draft Roadmap at 15.
10 See ATIS RFI Comments at 14; Draft Roadmap at 11.
standards development by imposing political preferences for market-based solutions.\textsuperscript{11} Thus, while USG support for private sector standardization leadership is welcome, in a number of instances the Draft Roadmap suggests that USG’s role will go well-beyond what it has been to date, or what will effectively achieve the goals and objectives of the U.S. standards strategy Roadmap.\textsuperscript{12} For example:

- The Draft Roadmap refers to “shared private and public sector leadership” of the standardization system.\textsuperscript{13} This reference could be interpreted as contemplating that USG will define policy-based standardization initiatives, beyond lending support to private sector efforts through, for instance, targeted pre-standardization investments, training, and targeted advocacy supporting private-sector efforts.

- The Draft Roadmap states that USG intends to deepen standards cooperation with allies and partners to support a robust standards governance process and to influence CET standards development.\textsuperscript{14} This is laudable and necessary, but no mention is made in the Draft how such efforts will be coordinated with the private sector to ensure that U.S. standards development does not become a function of government mandate.

- The Draft Roadmap calls for increased use of or facilitation by USG of frameworks and roadmaps that are developed outside the standards development process.\textsuperscript{15} Unmentioned, however, is how this will actually work in a way that avoids discordant priorities and fragmentation of already limited resources necessary for developing effective standards.

Each of these examples of potential government overreach suggests that a careful review of the entire Draft Roadmap is warranted to ensure that when finalized it is not subject to misinterpretation, misapplication, or misuse. In addition to clarifying language that avoids suggesting an overbroad role for USG, consideration should be given to including express limiting explanations that unambiguously establish that USG’s role will be to support private-sector standardization rather than define it, including through consultations regarding private-

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\textsuperscript{11} ATIS RFI Comments at 9-10.
\textsuperscript{12} See Draft Roadmap at 4-5.
\textsuperscript{13} Id. at 4.
\textsuperscript{14} Id. at 17, 19.
\textsuperscript{15} Id. at 7.
sector led efforts and priorities based on targeted market-driven outcomes. Consideration should also be given to how, specifically, a coordinated, consistent, and properly balanced approach will be taken across USG agencies, bureaus, and departments to allow for the greatest likelihood of a successful implementation of the USG NSSCET – will the responsibility for supporting the USG NSSCET objectives reside in a government office that has as its primary and highest priority implementation of the USG NSSCET, and will it have sufficient funding and resources to achieve this mission?

II. **Response to Call for Immediate Actions**

Consistent with the foregoing, ATIS reiterates its general support for the immediate actions identified in the Draft Roadmap. It suggests additional steps as well.

*Objective 1 – Investment.* ATIS continues its support of the Draft Roadmap’s objective of identifying “opportunities to increase CET pre-standardization R&D and standards participation activities,” including “greater U.S. participation in international standards development activities.” Leveraging existing budgetary resources, facilitating cross-agency collaboration, and providing guidance on deployment of standards opportunities are all positive steps. In addition, as ATIS has previously commented, USG should go beyond existing budgets to ensure that adequate funding is available for both USG and non-USG participation in international standards development activities. Tax credits offer a particularly effective incentive for increased private sector investment in R&D, and the final Roadmap would benefit by identifying tax credits specifically and proposing revisions to current tax regulations as means to achieve this objective.17

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16 *Id.* at 10.
17 ATIS RFI Comments at 12-13.
Objective 2 – Participation. ATIS likewise reiterates its agreement with USG’s recognition that “barriers to U.S. CET stakeholder participation in international standards developing activities” must be removed.18 A final Roadmap would, thus, benefit from a more specific statement of how this objective will be achieved. Tracking “current participation of Federal experts/liaisons in dynamic standard CET areas to ensure coordination, progress and accountability,” evaluating and reporting priorities and gaps, coordinating engagement, and proposing participation through a collaboration platform19 are all good steps. But they are not enough. Again, specific actions should be spelled out that will mitigate the significant costs required for participation in standards development and otherwise champion standards participation. For example, in addition, to tax credits, a final Roadmap could spell out with as much specificity as possible how targeted research funding will be implemented, how leadership in standards will be recognized, and how a STEM workforce will be established.20 ATIS encourages including such specifics in a final Roadmap.

Objective 3 – Workforce. The Draft Roadmap’s proposals for enhancing a “standards-ready” workforce are all well-stated – education, training, focused curriculum, and reduced barriers to current standards professionals are all positives.21 Again, however, new sources of funding for such efforts should be identified beyond current budgeted monies. And, achieving this objective will require a clear, consistent, and coordinated effort, which could reside in a specific office or department conferred the necessary authority and resources to implement the USG NSSCET most effectively. Finally, consistent with ATIS’s prior comments, all steps taken to implement the USG NSSCET must staunch a U.S. “brain drain” and support a U.S. “brain

18 Draft Roadmap at 10.  
19 Id.  
20 ATIS RFI Comments at 14-16.  
21 Draft Roadmap at 11.
gain” by allowing U.S. multinationals the ability to benefit from the work of the best technologists regardless of nationality and to simplify the process for graduates to stay in the U.S. and work for U.S. companies. Identifying specific potential steps for retaining the most talented and innovative minds in the U.S. in a final Roadmap should be considered.

Objective 4 – Integrity and Inclusivity. ATIS reiterates its strong support for USG’s proposed use of extramural funding, science and technology cooperation agreements, budget submissions for multi-year investments for pre-standardization R&D and standards lifecycles, and other mechanisms to sustain the integrity and inclusiveness of standards.23 ATIS further reiterates the need for USG to expressly take steps to ensure that the U.S. is a primary forum for CET standards development. As previously recounted, significant barriers exist to holding important standards meetings in the U.S., most prominently resulting from restrictive visa and passport processing and trade and export control policies and regulations, resulting in delays and increased costs for meetings in the U.S. These restrictive policies have given foreign jurisdictions, notably China, an advantage in hosting international meetings, and consequently a leg up on driving agendas for standardization activities.24 A final Roadmap will be greatly improved by expressly addressing the additional immediate actions identified here.

III. RESPONSE TO CALLS FOR ACTIONS FOR SUSTAINED IMPLEMENTATION OUTCOMES.

ATIS appreciates USG’s recognition that the USG NSSCET is a long-term endeavor that requires sustained actions to achieve its objectives. ATIS reiterates its general support for the sustained implementation outcomes identified in the Draft Roadmap. In so doing, however, ATIS strongly suggests that a final Roadmap emphasize USG’s commitment to engage with the

22 ATIS RFI Comments at 14.
23 Draft Roadmap at 11; see ATIS RFI Comments at 9-10.
24 ATIS RFI Comments at 17-21.
private sector prior to undertaking actions to implement the USG NSSCET, and acknowledge that USG’s actions will have as a highest priority consistency with private sector-defined priorities. This will establish the most appropriate mechanism for advancing standardization, innovation, and competitiveness, for the benefit of U.S. and global consumers and economies.

ATIS offers the following more specific observations and suggestions concerning the proposed actions for implementing the USG NSSCET.

A.  **Outcome 1: Increase investment in CET R&D and standardization to sustain U.S. technical leadership.** ATIS supports the recommendation in connection with increasing investment in CET R&D to update proposal and award policies and procedures to explicitly recognize SDO participation as within scope by Federal R&D grantees and funding recipients. This is the type of direct action, together with the proposed USG “incentives for participation in standards development activities that align with strategic priorities,” that may most likely achieve increased investment in CET R&D and standardization.

B.  **Outcome 2: Increase support for Federal programs to remove barriers and promote U.S. stakeholder participation in international standards development.** As commented above, ATIS strongly supports efforts by USG to encourage and facilitate the hosting of meetings of international standards bodies in the U.S. This is a critical step to achieve the outcome of “remov[ing] barriers and promot[ing] US stakeholder participation in international standards development.”

In addition to providing financial support for hosting meetings in the U.S., however, ATIS again urges USG to consider steps that could be taken to address the significant practical

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25 Id. at 13.
26 Id. at 13, 1.4.
27 Id. at 15.
28 Id. at 15, 2.2.
challenges that make it more difficult to host meetings in the U.S. as compared to other countries. As mentioned, principal among these are the difficulties in obtaining entry visas to attend meetings in the U.S., and the current U.S. policy regarding the retention of passports during the visa process. There are relatively straightforward and low-cost steps that USG could take to address these challenges, including by: (1) shortening the time needed for processing visa applications; (2) clarifying the passport retention policy; (3) clarifying that an “original” invitation letter is not necessary; and (4) engaging in a dialogue with industry to address practical and political challenges to hosting standards meetings in the U.S. due to concerns regarding the treatment of individuals and the search and seizure of electronic devices at the U.S. border.29

C. **Outcome 6: Enhance USG and like-minded nations’ representation and sustain influence in international standards system.**30 ATIS supports USG’s recognition that coordination with the private sector in government-to-government engagements is necessary to sustain U.S. leadership in international standards development.31 Such coordination is critical to avoid potential conflicts between and among public and private priorities, and to ensure that market-driven outcomes are pursued rather than politically expedient alternatives. A final Roadmap would benefit if the means by which USG will coordinate with the private sector are more precisely laid out, including who will drive such coordinating efforts for the USG. In addition, an express statement that USG, as a rule, will engage with the private sector in advance of any USG government-to-government engagement on standards cooperation will make such engagements more efficient and help ensure that USG acts consistently with private sector priorities.

29 ATIS RFI Comments at 17-20.
30 Draft Roadmap at 19.
31 Id. at 19, 6.1.
D. Proposed Development of Metrics to Assess Standards Readiness, Participation, and Usage. ATIS is particularly concerned that efforts to develop specific metrics to assess standards readiness (Outcome 1), participation (Outcome 3), and usage (Outcome 4), as proposed in the Draft Roadmap, may be challenging and may result in inaccurate or biased assessments that waste USG resources.\textsuperscript{32} More specifically, developing metrics as contemplated by the Draft Roadmap will necessarily require in the first instance the identification of criteria relating to readiness, participation, and usage. This will require adoption of analytical methodologies and predictive benchmarks that may likely be subject to intense debate and divergent views representing legitimate stakeholder self-interests, without any assurance that the accepted metrics reflect a balance of all interests. To date, the success of U.S. private sector-led voluntary standards development has been reflected in the market-driven, objectively observable, outcomes, which show expansive uptake of standards, unimaginable introduction of new technologies at ever-increasing paces, and the entry of new competitors and competition at all levels of applicable value chains. Pre-defining metrics that constitute “success” for forward looking CET standards development, if anything, will artificially limit the potential of such efforts, by imposing, albeit well-intentioned, but potentially unreliable measures, which would undermine existing market-based incentives that have proven to be most successful to date for achieving successful standardization. ATIS therefore respectfully suggests that a final Roadmap should \textit{not} include provisions contemplating the definition of metrics of the type addressed here. The USG should not assume such a role, whether in collaboration with the private sector or otherwise.

\footnote{Draft Roadmap at 13, 1.2; 16, 3.2; and 17, 4.5.}
IV. **CONCLUSION**

ATIS appreciates the opportunity to provide these comments on the draft USG NSSCET Implementation Roadmap. We stand committed to continuing our engagement with industry and USG to implement the most effective strategy for developing private-sector led, market-based CET standards. We welcome any and all outreach, and please do not hesitate to contact the undersigned.

Respectfully submitted,

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July 12, 2024