ANSI Executive Roundtable on Strategic Standardization and Competitiveness

MAY 22, 2018
WASHINGTON, DC

ROUNDTABLE REPORT

100 ANSI 1918 - 2018

Background on Executive Roundtable

On May 22, 2018, the American National Standards Institute (ANSI) brought together senior executives representing 10 ANSI member companies with global operations, along with federal government officials and ANSI leadership, for an Executive Roundtable on Strategic Standardization and Competitiveness at the Ronald Reagan Building and International Trade Center in Washington, DC. Corporate leaders represented a range of sectors including electrical power, heavy equipment, advanced manufacturing, glass/optical, IT, and software and services.

The three-hour meeting was an outcome of an August 2017 meeting between ANSI leadership and U.S. Commerce Secretary Wilbur Ross, in which the participants focused on the importance of standards and how they drive U.S. innovation and competitiveness. The meeting with Secretary Ross highlighted ANSI's role in relaying how market-driven standardization benefits the public and private sectors and underscored the importance of U.S. leadership in global forums—inspiring further conversation for the executive roundtable.

The 2018 Roundtable participants were invited based on their companies' strong records of active engagement in standardization. During two discussion segments, participants focused on how strategic reliance on standards and participation in standards and conformity assessment activities helps U.S. companies thrive.

Roundtable Participants and Acknowledgements

The event was an opportunity to engage key corporate executives and find out why investment in standards is important to their bottom line, and to get various viewpoints on the long-term vision for the success of the U.S. standardization system.

ANSI and its president and CEO, S. Joe Bhatia, offer thanks to the roundtable participants:

- Brian DiBella, President, Electrical Wiring Systems, Legrand North and Central America
- Tommy Gardner, Chief Technology Officer, HP Inc. Federal
- Jason Matusow, General Manager, Global Standards, Microsoft
- Michael Murphy, Executive Director of Worldwide Regulatory Compliance Engineering & Environmental Affairs, Dell
- Tim Regan, Senior Vice President, Global Government Affairs, Corning
- Jim Matthews, Director, Technical Standards and Standards Policy, Corning Incorporated
- Michael Regelski, Senior Vice President and CTO, Electrical Sector, Eaton
- Wolfgang Rubrecht, President, Strategy and Business Development, Siemens
- Greg Slater, Vice President, Law and Policy Group, and Director of Anti-trust, Intellectual Property, and Standards Policy, Intel

- David Vasko, Director, Advanced Technology, Rockwell Automation
- Harrison Wadsworth, Director of Government Affairs, Siemens

ANSI was honored to have the participation of:

- Walter Copan, Under Secretary of Commerce for Standards and Technology and Director, National Institute of Standards and Technology (NIST), U.S. Commerce Department
- Nazak Nikakhar, Assistant Secretary for Industry and Analysis, International Trade Administration

In addition to Under Secretary Copan and Assistant Secretary Nikakhar, DoC, NIST, and ITA were represented by:

- Gordon Gillerman, Director, Standards Coordination Office, NIST, U.S. Commerce Department
- Eileen Hill, Team Lead, Standards, Office of Standards and Investment Policy, International Trade Administration (ITA)
- Ajit Jillavenkatesa, NIST, U.S. Commerce Department

In addition to Mr. Bhatia, ANSI was represented by Mary Saunders, vice president, government relations and public policy, and Joseph Tretler, vice president, international policy.

Opening Remarks

Mr. Bhatia opened the workshop by acknowledging that the government and the private sector, in partnership, share much common ground on strategic priorities for U.S. business goals. He expressed that ANSI encourages the Commerce Secretary Mr. Wilbur Ross and other government sponsors to advance a strong U.S. policy to promote the use of private-sector-led standards and conformity assessment solutions to meet market as well as regulatory needs. He also noted that the executives' shared experiences will help foster one of ANSI's key missions to define new strategies for corporate leaders, and strengthen the voluntary system for the benefit of U.S. companies, industry, and the nation as a whole.

Mr. Bhatia introduced Dr. Copan, under secretary of commerce for standards and technology and NIST director, who relayed the Commerce Secretary's message, and the recognition of the importance of standards and emphasized the importance of a continued and strong U.S. leadership in standards—critical to strengthening U.S. industry.

Dr. Copan also expressed that the strength and vitality of the U.S. approach to standardization has been instrumental in contributing to the remarkable growth of the U.S. economy, since World War II. He emphasized that the U.S. standardization system is successful because the system is

open, transparent, and consensus based, and that it works because the marketplace decides what standards and compliance solutions are needed, when they are needed, and what will meet their requirements.

Dr. Copan noted that the private-public partnership model has provided significant and tangible benefits to U.S. industry, government, and taxpayers, while simultaneously supporting U.S. competitiveness around the world.

He added that the current administration has been clear about prioritizing U.S. competiveness and growth, and the National Security Strategy—released in early 2018—emphasizes the economy as an element of national security. To that end, standards play an important role in enabling and supporting the modern-day economy.

Dr. Copan also acknowledged that the average person, including many policy makers, does not understand the difference between the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU), and may not be familiar with standardization community terminology such as "national adoption" or "incorporation by reference."

"Policy makers need to hear and see how the standards community is gearing up to address the question of continued leadership, whether by taking on leadership roles in standards bodies, by [organizing] programs to train the next generation of engineers and scientists, or through creative and innovative partnerships," he said.

Contributing to the discussion, Ms. Nikakhtar emphasized importance of participant feedback, inviting the participants to provide input on how the collective standardization community can leverage government assets to improve the role of standardization and improve market access issues.

Session 1: Importance of Investment in Standards Activities

Mr. Bhatia introduced the first series of questions by asking participants:

Where do you rank investment in standards activities, whether for participation in standards development, or in contributing to standards development?

Participants noted that standards are important when trying to establish a market, and standards are critically important for safety and effectiveness and in terms of driving innovation.

One participant explained that standards were critically important part of developing a market for transformation, and his company invests across several units to help drive innovation.

Another expressed that many large companies position the corporate standards function in the CTO or legal department because they are looking for a way to normalize against the product-unit

view of standardization. He added that companies need to be careful in differentiating the SDO view of standardization from the company view of standardization.

Another participant noted that his company relies on some 1,000 people who work on standardization at any time in about 400 standardization activities, and the roles vary, from writing a USB standard specification and submitting it to consortia to being an active participant in a range of traditional standards forums. He stressed that companies can invest and prioritize based on business unit needs, because roles differ according to the technology involved and according to the business interest at issue. He also noted that because his company is a technology innovator, standards are critical to broad adoption of innovations.

Mr. Bhatia: **How would you characterize the level of U.S. engagement in global standards activities? Do you think it's adequate? Is more investment needed? Are there gaps or challenges in private-sector or government engagement that need to be addressed?**

Participants expressed that it can be difficult to be adequately involved in international activities, as decisions are made early in the process and U.S. companies have limited roles. Also, it was noted that with the regionalization of ITU, there is no direct influence of industry, and regional stakeholder meetings that are "locked in" region by region do not get filtered to the international meetings.

One representative expressed that a lot of standards setting is done by industry and not by government, which is positive, as the market decides what will be successful. He noted how he spends time as a volunteer in a private-sector, ANSI-accredited standards program, which focuses on how to have flexible standards for certain markets. He said, "We need a broader perspective of working in a global environment and a better idea of how America is carrying its weight."

For industrial companies with electrical and ICT assets driven by standards in the digital world, stakeholders are concerned with cybersecurity and longevity of systems supported by standards. Another participant discussed his involvement with developing NIST's Cyber Security Framework 1.0—which reflects an industry-consensus approach. He noted that a stringent regulatory approach doesn't always work, and that with increasing requirements for connectivity between systems all over the world in different industries, there is a need for stronger standards engagement when it comes to the definition of systems of systems.

"The world is getting more complex. The neatly compartmentalized approach where you could define standards was relatively easy; but as connectivity increases, we need standards for systems of systems," he said.

Mr. Bhatia: **Can you share examples of what you would consider your company's successful engagement in standards?**

One person noted the success of the recent NIST Special Publication, Platform Firmware Resiliency Guidelines, and engagement to develop 3D printing standards with the U.S. SDOs and ISO. He expressed the importance of these standards from an economic point of view.

Another pointed to the successful USB Standard (read the case study on its success on the Intel site at www.intel.com/content/www/us/en/standards/usb-two-decades-of-plug-and-play-article.html), noting that it is one of the most widely adopted standards and has been refined since its original version.

The participants discussed how we need to take into account the role that open source software is playing. As one participant noted, "IOT is driving hardware, and the pace of innovation is remarkable."

Mr. Bhatia: **How do companies measure return on investment in standardization activities?**

One participant shared that new product sales help measure return on investment (ROI) as part of an innovation agenda.

Another participant noted that his company embeds the standards process into their business practices. Product and business teams set their goals, and standards are part of that, as a component of a scoring system. Performance evaluation helps measure the effectiveness of standards.

The discussion also touched on inventions as drivers of standards setting, which allows innovation to occur. There is a reluctance for market acceptance until standards are set. The invention might be a catalyst and the standards bodies support that.

Session 2: Long-Term Vision for Success for the U.S. Standards System

Mr. Bhatia: **How healthy is the U.S. standardization system, and what are notable threats? Share viewpoints on engagement and the outcomes that emanate out of the system for the benefit of U.S. competitiveness and U.S. industry.**

Participants discussed the need for more flexibility and speed within the standardization system, especially in fast moving industries such as IT.

Other concerns included recent pressures for increased public access to standards incorporated by reference into regulations, and one participant remarked that actions that undercut copyrights would threaten the economic viability of standards organizations.

The graying of the standardization community's leadership is another key concern. One participant asked how many standards participants are close to retirement and what can be done to replenish participants.

Participants also noted that as companies merge, acquire, and restructure, and as technologies bring different markets such as ICT and the power energy sector together, the standardization community has been slow to recognize and encourage collaboration across borders and facilitating activities [that support collaboration]. This holds us back as a community immersed in technology-focused industries.

In addition to encouraging additional feedback to continue the dialogue, Mr. Bhatia posed the next question: **What is the greatest value that companies get from standardization engagement, and what are threats to organizations and their ability to participate?**

Some takeaways/feedback from participants included:

- Standards can open up markets and drive innovation, and, ultimately, underpin greater product choice. However, if there are technology mandates or domestic standards that deviate from international standards and are discriminatory, this can block participants out of the market that they are trying to penetrate.
- A participant remarked that often inventions come first and the standard follows later, and this is an incentive for companies to increase their investment in innovation, with the prospect that widely accepted standards can support a wider range of code-compliant products being developed.

Mr. Bhatia then posed another subset question to the group: **Is the demonstration of compliance to conformity assessment process another tool that is used especially for products that are not code compliant dependent?**

One participant addressed how demonstration of compliance supports two different drivers—safety drivers and economic drivers. And another mentioned that in regards to safety and certification for his industry, there is sometimes a concern that there is a profit motive for government in certifications.

Another participant brought up the time element in regulation and standards development. "If government is going to start regulating blockchain today, for example, it's not going to work because [block chain] needs to develop on its own long enough [for industry] to understand where the standards should be implemented," he noted.

Mr. Bhatia: **What are the key standardization challenges that your company sees in the next few years, and what impact do you see on your company's supply chain?**

Participants once again brought up the aging standardization community, asking ANSI what it is doing to help in this area. Mr. Bhatia noted that ANSI is connecting with schools and colleges, and facilitating events that highlight the value of standards activities to engage and incentivize students so that they may consider standardization as a future career option. He mentioned ANSI's collaboration with partner organizations at the recent USA Science and Engineering Festival. He also discussed the emerging professionals programs developed by ISO and IEC that are supported by ANSI and its members.

"We're learning about young professional engagement from best practices that are carried out by several countries that do it better than us, such as South Korea, Japan, and Germany," Mr. Bhatia said.

He pointed out that IEC has been doing an excellent job of recruiting young professionals and making them aware of standardization work through participation in standardization events and activities, and internships at companies where they can develop career options. He noted that these emerging professionals sometimes become the best champions of standardization work (see more on the IEC Young Professionals Program).

Participants also discussed mid-career professionals and how someone can transition to a standardization role. It was noted that ANSI's Company Member Forum provides an opportunity for company participants to share insights, challenges, and best practices, and can be a potential solution facilitator for increasing engagement. One participant shared an idea for creating an incentive for participation: a mid-career professional can be selected for standards-setting role and then earn a promotion based on his/her successful engagement.

"You're pre-selecting a promotion for an individual who is going to spend a couple of years in standards in a very important area…but then after that example, everybody wants to do standards, because they see it as a path for a future career," a participant explained.

Participants also discussed the need for standards knowledge to become more intrinsic to the existing roles of engineers and other technical staff.

Mr. Bhatia noted how ANSI's Standards Boost Business campaign—intended to highlight the value of standardization to businesses—has been updated to reflect how the younger generation of professionals can benefit by being engaged in standardization work. He also noted that he has been a guest lecturer all over the country to discuss the value of standardization to students across all disciplines.

Mr. Bhatia: **What constitutes successful strategic standardization, and what can we do as a collective community to better commit?**

Participants shared that businesses need make sure they are spending time in areas that provide the most value, in order to be funded. "You can have someone who is a junior staffer run across an issue that will affect the corporation, and you need to have a clear escalation path to get to the right place to secure funding support," one participant said.

Another participant noted the benefits of shifting from a reactive state to a proactive state. "Where we see the business growing or the technology leading business, we try to get ahead of that. And a lot of times, just due to economic conditions or something else, we cut back in different areas, and then we are in a very reactive mode in having to respond to issues, instead of being out front and being proactive," he said. Another panelist remarked that with the integration of emerging technologies, being proactive is absolutely critical, more so than ever.

Mr. Bhatia asked whether the participants are willing to advocate more widely regarding strategic engagement in standardization, and share tools that the community and ANSI can deploy, including testimonials or statements, to lay a foundation to create key messages for the broader community. There was general support from participants for this.

This discussion led to Mr. Bhatia's final question: **What can ANSI do better – to increase corporate investment and engagement in standards and conformity assessment activities, both domestically and in global forums?**

One participant noted that while the IEC Young Professionals Workshop is a successful program, it typically involves three people per year, and these professionals accelerate much faster in their standards careers. He asked, "How do we scale that? How do we get more people involved? How do we get people earlier in their careers playing leadership roles? Could ANSI help with that, and with ways of supporting training and experiences, and things like that through different organizations?"

Participants also discussed how ANSI can lead efforts in communicating how standards are impacted by our 21st century new digital world, with the growth of AI, machine learning, block chain, and new tools that didn't exist five years ago. ANSI can relay how these technologies produce a better usefulness of the standards, or a better utility or better access. "There are a lot of questions out there about the future of standards, and I think ANSI would be perfect to take the lead in that role," one participant noted.

Focusing on developments in China, a participant noted that China has made some improvements, but only because of consistent pressure. He said that so we, as a collective community, need to continue that pressure, as China is now borrowing our consortia concept in their new standardization law. He encouraged ANSI to keep up the engagement.

Another participant emphasized the importance of U.S. government participation in standards activities. The group discussed the benefits of frameworks, for example, within cybersecurity and smart manufacturing. One participant noted that those frameworks are helpful in providing direction by analyzing what's happening and giving some context for how existing standards can be applied. NIST's Cybersecurity Framework is a great example of the value of broad stakeholder engagement, not only for the U.S. but for many other countries that are adopting it as a reference.

It was noted that NIST can better clarify U.S. government use of artificial intelligence (AI) and machine learning (ML) technologies, which can help shape industry. Mr. Copan noted that we need to take a closer look at the common use of terminology and language in these areas, to enable industry to understand what is needed. Furthermore, he shared that NIST will continue down the path of conducting research to support innovation in these areas, as well as focus on developmental frameworks that will be powerful for industry.

Closing Remarks and Next Steps

Mr. Copan helped close the session, noting that standards are critically important to the companies represented at the roundtable and can be utilized as valuable tools for innovation.

He noted several topics of importance to consider:

- There needs to be a focus on broader engagement with U.S. industry to support the workforce of future as well as the activity around standards creation and promulgation both in the United States and abroad.
- As a community, we need to address the timelines with respect to the rise of new technology and the speed of market introduction. There is a mismatch between the standards crafting timescale and the speed with which markets are changing, particularly considering the overlay of open source.
- The interdisciplinary nature of our world is critically important—whether it is occurring through mergers and acquisitions or other means. It drives the need for new collaboration mechanisms across standards organizations themselves…to be considered by all of us in the standards process, including at NIST and ANSI.
- The U.S. community can better drive the appropriate level of incentives for standards work, addressing the graying standards workforce through curricula around training and development.

Mr. Bhatia identified next steps for ANSI including:

- Continue engagement with roundtable participants on cooperative initiatives to advance mutually beneficial objectives.
- Increase engagement with NIST and other relevant government agencies.
- Engage with ANSI policy committees and member forums to discuss actionable items.
- Gather data on global best practices for engaging young professionals from the corporate world in standardization activities.
- Incorporate lessons learned into planning for the September 2018 USNC symposium and executive roundtable on *Standards and the Protection of Critical Infrastructure,* as well as future ANSI events.

ANSI Executive Roundtable Participants

May 22, 2018

Last Name	First Name	Organization
Bhatia	Joe	American National Standards Institute
Copan	Walter	U.S. Commerce Department - National Institute of Standards and Technology
DiBella	Brian	Legrand
Gardner	Tommy	HP
Gillerman	Gordon	U.S. Commerce Department - National Institute of Standards and Technology
Hill	Eileen	International Trade Administration - Office of Standards and Investment Policy
Jillavenkatesa	Ajit	U.S. Commerce Department - National Institute of Standards and Technology
Matthews	Jim	Corning
Matusow	Jason	Microsoft
Murphy	Michael	Dell
Nikakhtar	Nazak	International Trade Administration
Regan	Tim	Corning
Regelski	Michael	Eaton
Rubrecht	Wolfgang	Siemens
Saunders	Mary	American National Standards Institute
Slater	Greg	Intel
Tretler	Joe	American National Standards Institute
Vasko	David	Rockwell
Wadsworth	Harrison	Siemens

For More Information

American National Standards Institute

1899 L Street, NW
11th Floor
Washington, DC, 20036
Headquarters

25 West 43rd Street
Fourth Floor
New York, NY 10036
New York Office

212.642.4900
pr@ansi.org

www.ansi.org