Enabling Automated and Connected Infrastructure Brainstorming Session Agenda

July 30, 2024 | 9:00 AM – 5:00 PM EST

University of Michigan-Dearborn | Institute for Advanced Vehicle Systems (IAVS)

223 Richard Dr, Dearborn, MI 48128

DRAFT

Event Registration and **Slido Session** # TBA

TIME	DISCUSSION TOPIC AND SPEAKER
8:30 – 9:00 am	**Check-in & Networking**
9:00 – 9:30 am	**Welcome & Brainstorming Session Objectives –** Christine Bernat, ANSI
Session 1	**Technology Convergence and Standards Readiness Briefings**
9:30 – 10:10 am	Attendees will hear perspectives about challenges associated with critical and emerging technologies, work underway to address technology convergence, standards readiness considerations, and about topics that would benefit from additional awareness to prepare for the subsequent discussions. *Presentations:* 1. TBA: Technology conversion points (20 minutes) 2. Clare Allocca, NIST: Standards Readiness Considerations (10 minutes) 3. Christine Bernat, ANSI: Standards Readiness Levels (10 minutes)
Session 2	**Challenges, Opportunities, and Standards Readiness Discussion**
10:10 – 10:25 pm	**Automated and Connected Mining & Agriculture Briefing(s):** *Challenges, Opportunities, and Standards Experience* *Presenter*: TBA Various factors come into play when evaluating whether conditions are right to embark on a standardization activity for a given technology, and to help predict development needs and timing of a standardization strategy. Attendees will learn about: - challenges and opportunities involved with automated and connected infrastructure in **agriculture applications** - maturity and pace of standards development - awareness about technology specific standards, conformity assessment and research and development activities underway or needed - what is needed to enable these technologies
10:25 – 10:40 am	**Networking Break**
10:40 – 10:55 am	**Discussion Preparation: Challenges, Opportunities, and Standards Readiness –** *Christine Bernat, ANSI* Various factors come into play when evaluating whether conditions are right to embark on a standardization activity for a given technology, and to help predict development needs and timing of a standardization strategy. **Questions supporting Session 2 discussions are as follows:** **1. Technology and Pre-standardization Considerations**

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	- What are the challenges and opportunities presented by automated and connected infrastructure and is there sufficient public and private stakeholder awareness on these fronts? - What role do stakeholders see standards playing in overcoming challenges? - What is the role of industry vs government to maximize opportunities? **2. Existing Standards Development Efforts** - What is the maturity of technology and application specific standards? - How would you rate the overall awareness of technology and application specific standards? - What concerns have been raised about existing standards efforts? (e.g., alignment, complementary, duplicative, conflicting, resource constricted, lacking data) - Is the pace of standards development on par with the technology maturity level? - What approaches could be taken to help align/maintain the pace of standards and technology development? - Is there a need to accelerate standards development for market acceptance? If so, what is needed to support standards development acceleration? **3. Regulation, Policy and/or Conformity Assessment** - What regulation, policy and/or conformity assessment frameworks might be needed to enable or accelerate technology uptake? - What is the role of government to maximize opportunities? To support standards development?
10:55 – 11:45 am	**Automated and Connected Ground Vehicles Discussion:** *Challenges, Opportunities, and Standards Readiness* **Moderator:** TBA See question above. Discussions will center around: - challenges and opportunities presented with automated and connected **ground vehicles (all sizes/types)** - maturity and pace of standards development - awareness about technology specific standards, conformity assessment and research and development activities underway or needed - what is needed to enable these technologies and to advance their success in the marketplace
11:45 – 12:30 pm	**Break - Catered Lunch Provided**
12:30 – 1:45 pm	**Automated and Connected Aircraft and the Infrastructure Ecosystem Discussion:** *Challenges, Opportunities, and Standards Readiness* Building on agriculture and ground vehicle discussions, attendees will discuss the challenges, opportunities and standards focused on aviation specific aspects as well as the integration of all vehicle technologies into an automated and connected infrastructure. **Moderator:** TBA See question above. Discussions will center around: - challenges and opportunities presented with automated and connected **aircraft (*all categories*)** - maturity and pace of standards development - awareness about technology specific standards, conformity assessment and research and development activities underway or needed - what is needed to enable these technologies and to advance their success in the marketplace
Session 3	**Standards Driven Public-Private Partnerships (PPPs)**
1:45– 2:15 pm	**Standards Driven Public-Private Partnership Models Panel** Attendees will gain a better understanding about various models and use cases of standards-driven PPPs, including lessons learned. Discussions will center around: the types of PPPs that would enable standards development; how PPPs may maximize specific opportunities and accelerate solutions; and the community interest in establishing PPPs.

	Panelists:
	  - Government Perspective: Natalia Globus Martin, National Institute of Standards and Technology (NIST)
	  - *Industry Perspective:* TBA
	  - SDO Perspective: Jeff Grove, ASTM International

2:00 – 2:10 pm	**Discussion Preparation: PPP Enabling CETs –** *Christine Bernat, ANSI*
2:10 – 3:15 pm	**Public-Private Partnerships: Enabling CETs Discussion** *Moderator:* TBA *Discussion:* 1. What benefits or challenges do you see with a PPP for these technologies? 2. What type of PPP model or models could benefit these technologies? 3. What role can various types of stakeholder organizations (e.g., consortia, trade associations, academia, standards organizations, centers of excellence) play in PPPs for these technologies? 4. What PPP short-term and long-term goals would have the broadest impact on success (e.g., standards focused R&D, workforce development, research and standards roadmaps, strategic planning)? 5. At what (if any) point would an organized PPP activity be most advantageous? 6. Does a PPP require a formal agreement to be able to realize its purpose?
3:15 – 3:30 pm	**Networking Break**
Session 4	**Information Sharing Necessary to Support CET Standards Development**
3:30 – 3:50 pm	**Current State of Information Sharing** Attendees will gain a better understanding about existing information-sharing approaches in the standardization community today (tracking tools, standards roadmaps, workshops/webinars, etc.). Discussions will center around the types of information needed to be shared, how to best gather and deliver this information in order to reach appropriate audiences, as well as how that information would be utilized. *Presentations:* - Mary Saunders, American National Standards Institute (ANSI): What information is being shared today? - Maria Knake, National Institute of Standards and Technology (NIST): What did industry suggest in RFI responses and past listening sessions?

3:50 – 4:30 pm	**Future State of Information Sharing Discussion**
	
	Moderator: TBA
	
	Discussion:
	1. What are the current communication challenges?
	2. What information is typically discoverable (publicly available) versus not (and why not)? Does this vary according to the type of SDO? SDO or consortia/association? Etc.
	3. Are there concerns about duplication, inconsistency, ambiguity of standards development efforts for these technologies today?
	4. Where is standards education needed to broaden stakeholder knowledge?
	   ▪ What education should be coordinated by the private sector, by academia, and/or by the U.S. government?
	   ▪ What role could a PPP play in supporting information sharing needs for CETs technologies?
	5. Considering CETs are often driven by startups, are there specific communications needs for startups versus established organizations?
	6. How can bilateral communications between the public and private sector support CETs?

4:30 – 5:00 pm	**Key Takeaways & Closing Remarks –** Christine Bernat, ANSI
5:15 – 7:00 pm	**UofM-Dearborn Tours and Student Engagement** After the conclusion of our event, from approximately 5:15-7:00pm, attendees can visit UofM-Dearborn facilities (including the driving simulator) and see the work of their Senior Teams which support this sector. Attendees are asked to register for the tour so UofM can make arrangements.

For more information, contact Christine DeJong Bernat, Associate Director, Standards Facilitation (cbernat@ansi.org; 212-642-8919) or Rachel Hawthorne, Senior Manager, ISO Outreach and Enhanced Services (rhawthorne@ansi.org; 212.642.4938).