# Standards-Driven Public-Private Partnerships

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Session 3
Discussion
Preparations

Public-private partnerships (PPPs) are collaborations between a government agency and a private-sector organization for the purposes of delivering a project or service, and which involve the sharing of resources, responsibility, risks, and benefits.





## Standards-Driven Public-Private Partnerships

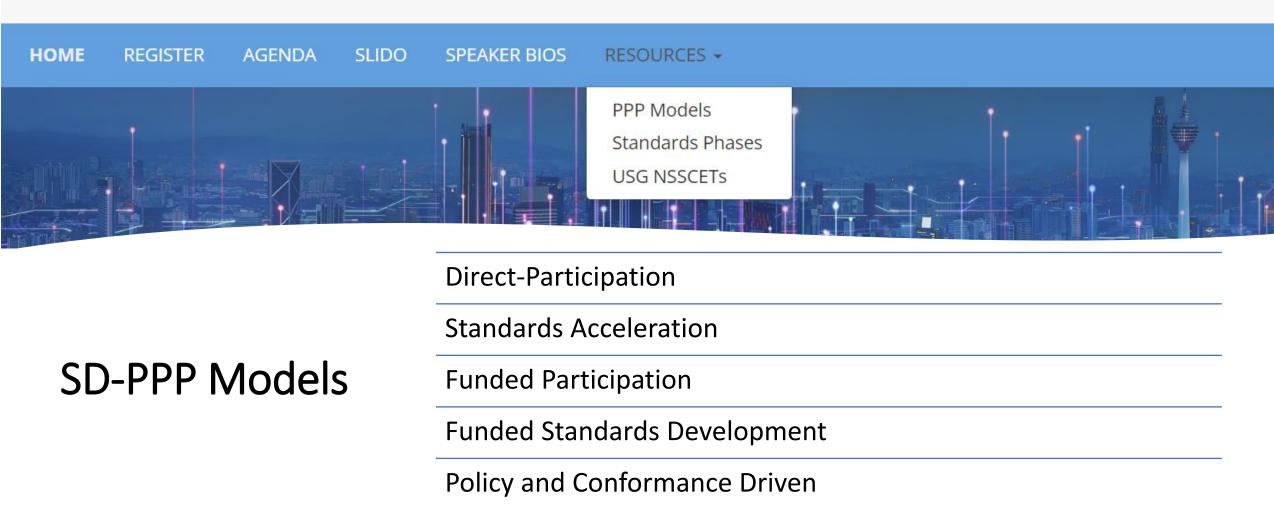
**Standards-driven PPPs (SD-PPPs)** are a type of PPP where resources invested are directly impacting consensus-based standards development.

- SD-PPPs may or may not involve contractual agreements, financial support, or formal relationships between public and private representatives.
- SD-PPPs may prove more effective when private-sector technology and innovation synergizes with public-sector priorities and incentives.
- Common work products of SD-PPPs are:
  - **Pre-standardization activities**: Roadmaps, gap analysis, research and development, etc.
  - **Standards development**: Support for the proposal and/or formation of new committees, identifying and convening technical experts, content development, etc.
  - **Implementation**: Increasing awareness, technical training, workforce development, conformity assessment, etc.

Actual SD-PPP use cases often include the characteristics of more than one model. For example, a SD-PPP may be a "standards acceleration" and a "funded participation model."



## Enabling Automated and Connected Infrastructure Through Public-Private Partnerships









### **SD-PPP: Direct Participation**

Public and private sector directly participates in the standards development process alongside to any other stakeholder at the table. As with any other participant, they represent their organization and follow any policies set forth by their employer as well as the regulations/bylaws of the SSO supporting the standards development activity. Policies and guidance about federal government participation can be found in Public Law 104-113, National Technology Transfer and Advancement Act of 1995, and OMB Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities.

#### **Objectives**

- Support the development of standards
- Provide insight about what role standards would play in relation to existing or future government regulations/policy
- Gather information to inform potential government regulations/policy

#### **Work Products**

- Pre-standardization: technical reports, strategic plans
- Standardization: Standards development
- Implementation: Increasing awareness, technical training, workforce development on standards





### **SD-PPP: Standards Acceleration**

Primarily focused on convening stakeholders to discuss opportunities, challenges, and needs for a given technology and applicable sectors. The primary objective of this SD-PPP activities may not be to develop standards but instead support pre-standardization efforts. Ultimately, the desired outcome is to determine if there is consensus about the need for standards and to help advance decision-making and therefore accelerate subsequent standards development.

#### **Objectives**

- To accelerate the development of standards by convening experts to increase awareness about existing and needed research and standards

#### **Work Products**

 Pre-standardization: Technical workshops and symposia, standards road mapping (landscaping and gap analyses), and other research and technology reports





### SD-PPP: Funded Participation

Utilized to increase participation of subject matter experts in the standards development process. Often, startups, small or medium companies in new or niche technology areas, have limited resources to travel and participate in standards, or the sector has not yet established enough resources to have as many subject matter experts who have longstanding knowledge and experience both in the field and in standards development. Both resource constraints can delay standards development or impact a balance of representation. For this to be a PPP, some funding for individuals to participate would need to come from the government but may also come from the private sector.

#### **Objectives**

-Support increased participation to balance the representation of stakeholders in an activity including small and medium organizations, startups or key technical experts without the resources to pay participation (membership/event) fees or travel

## Work Products

- N/A, this supports standards development, but the objective is not a tangible work product







## SD-PPP: Funded Standards Development

Utilized when stakeholders need resources to conduct research, testing, or data gathering to help inform and develop standards. The activities may result in content development (such as test methods, best practices or design requirements), technical presentations at a SSO meeting, or help with anonymizing information so industry data can be shared without revealing IP. In some cases, funding is allocated to an organization or to an individual with the objective of drafting a standard(s).

### **Objectives**

Accelerate standards development by funding initial research

## Work Products

- Pre-standardization: Research, research reports, databases, statistics
- Pre-standardization: Formation of a new standards developing committee or SDO
- Standards Development: Draft proposed test methods, design specification, best practices
- Implementation: Increasing awareness, technical training, workforce development on standards





## SD-PPP: Policy & Conformance Driven

Utilized when the public and private sector collaborate to **develop standards** specifically to meet a new regulation, policy, or conformity assessment requirement. Initiation of this SD-PPP may also be the result of an emergency situation (e.g., pandemic or incident involving fatalities). This SD-PPP stands out as its own model solely because it requires rapid development of one or more standards and the dedication of resources to accomplish this in a specific timeline. This scenario typically involves a combination of characteristics described in the Direct Participation, Standards Acceleration and Funded Participation SD-PPP models.

#### **Objectives**

- Fnable or accelerate standards development to support an anticipated new regulation or certification requirement. The standards are expected to be incorporated by reference.

- **Work Products** Pre-standardization: Strategic plans and roadmaps
  - Standards Development: Standards (1 or more standards)
  - Implementation: Increasing awareness, technical training, workforce development on standards



### SD-PPP Models and Phases of Standardization





STANDARDS READINESS PHASES					
	PREMATURE	EXPLORATORY	PLANNING	DEVELOPMENT	IMPLEMENTATION
Standardization Activity	- No discussions / interest in standardization	<ul> <li>Identification &amp; evaluation of existing related standards &amp; conformity assessment programs of similar technologies</li> <li>Benchmarking</li> </ul>	<ul><li>Landscape &amp; gap analysis</li><li>Roadmapping</li><li>Terminology development</li><li>Soliciting stakeholder engagement</li></ul>	<ul> <li>Standards committee(s) formed</li> <li>Soliciting leadership and stakeholder engagement</li> <li>Standards drafted, approved &amp; maintained</li> </ul>	<ul> <li>Standards approved, maintained &amp; utilized</li> <li>Conformity assessments</li> <li>Referenced in law or regulation, as applicable</li> </ul>
Potential SD-PPP Model(s)	- No drivers for SD- PPP exist yet	- Standards Acceleration - Policy & Conformance Driven	<ul><li>Standards Acceleration</li><li>Funded Standards Development</li><li>Policy &amp; Conformance Driven</li></ul>	<ul> <li>Direct Participation</li> <li>Funded Standards Development</li> <li>Funded Participation</li> <li>Policy &amp; Conformance Driven</li> </ul>	<ul> <li>Direct Participation</li> <li>Funded Standards Development</li> <li>Funded Participation</li> <li>Policy &amp; Conformance Driven</li> </ul>
Potential SD-PPP Activities	- N/A	<ul> <li>Focus groups</li> <li>Technical workshops</li> <li>Landscape analyses</li> <li>Regulatory/conformity assessment review</li> </ul>	<ul> <li>Gathering critical mass &amp; establishing balance of experts</li> <li>Focus groups</li> <li>Technical workshops</li> <li>Technical/research reports</li> <li>Landscape analyses</li> <li>Standards roadmaps</li> <li>Strategic plans (R&amp;D/standards)</li> <li>Regulatory gap assessments</li> </ul>	<ul> <li>Sustain balance of experts &amp; critical mass</li> <li>Technical workshops</li> <li>Technical/research reports</li> <li>Continued R&amp;D</li> <li>Coordination on standards &amp; policy development priorities</li> <li>Continued strategic planning</li> <li>Workforce development</li> </ul>	<ul> <li>Sustain balance of experts &amp; critical mass</li> <li>Technical training / workshops to increase awareness &amp; adoption</li> <li>Workforce development</li> <li>Continued R&amp;D</li> <li>Evaluation of standards impact along with refinements and expanding on portfolios</li> </ul>
Information Sharing & Awareness	<ul> <li>Internal prototyping         <ul> <li>research begun</li> </ul> </li> <li>Stakeholders work         <ul> <li>independently</li> </ul> </li> <li>Consortia/Associatio         <ul> <li>discussions not</li> <li>taking place, or do</li> <li>not exist</li> </ul> </li> </ul>	<ul> <li>Collaborative research takes place</li> <li>Like-minded stakeholders sharing minimal information</li> <li>Consortia/Association discussions &amp; evaluation begin</li> </ul>	<ul> <li>Research is being strategized</li> <li>Like-minded stakeholders         collaborating &amp; sharing minimal         information more broadly</li> <li>Consortia/Association         position/issue papers developed</li> </ul>	<ul> <li>Research is ongoing</li> <li>Balanced representation of stakeholders collaborating</li> <li>Stakeholders investing resources to draft &amp; vote on standards</li> <li>Consortia/Association recommendations issued</li> </ul>	<ul> <li>Research is ongoing</li> <li>Balanced representation of stakeholders collaborating &amp; doing business</li> <li>Stakeholders investing resources to draft &amp; vote on standards</li> <li>Consortia/Association advocating for standards adoption</li> </ul>

