# Agenda

## Tuesday, October 10, 2023

### 8:30 am  
Registration

### 9:00 am  
Opening Plenary Session – Room 3ABC
- **Welcome** ~ Joanie Chin, NIST Engineering Laboratory Director (tentative)
- **Workshop Scope and Objectives** ~ Kevin Jurrens, Division Chief, Intelligent Systems Division, NIST
- **2012 Additive Manufacturing Roadmap: A Decade of NIST Progress** ~ Paul Witherell, NIST
- **Preliminary Findings in Additive Manufacturing – Roadmaps and R&D** ~ Shawn Moylan, NIST

### 10:30 am  
Break

### 10:45 am  
Panel: Updates on Key Additive Manufacturing Technical Areas – Room 3ABC
- Materials Characterization
- Process Monitoring and Control
- Supply Chains and Cybersecurity

### 12:00 pm  
Lunch (on your own – locations provided*)

### 1:00 pm  
Instructions for Breakout Sessions (and move to breakout rooms)

### Parallel Breakout Sessions: Materials Characterization (Room 3ABC), Process Monitoring and Control (Room 3D), and Supply Chains and Cybersecurity for AM Ecosysystems (Room 5)

### 1:10 pm  
Breakout Session I: Desired Future Capabilities and Technologies for Additive Manufacturing
- Envisioned future:
  - Emerging and anticipated future applications for AM.
  - Capabilities we want and need the most.

### 1:40 pm  
Breakout Session II: Challenges and Barriers to Achieving Capabilities and Applications
- Barriers limiting the broader use of additive manufacturing.
- Measurement and standards barriers, challenges, and gaps.
- Prioritization and identification of top challenges (individual voting).

### 2:30 pm  
Break

### 2:45 pm  
Breakout Session III: R&D and Approaches to Address Challenges
- R&D, strategic approaches, and standards/measurements to address top challenges.
- Prioritization and identification of top R&D (individual voting).

### 3:45 pm  
- Selection of priority actionable topics for Roadmap.

### 4:15 pm  
Wrap Up and Plan for Next Day (Main Session Room)

### 4:30 pm  
Adjourn

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## Wednesday, October 11, 2023

### 8:30 am  
Registration

### 9:00 am  
Opening Plenary
- **Welcome and Goals for Today** ~ Paul Witherell, NIST
- **Keynote (industry)** ~ The Future of AM ~ Speaker TBD
10:30 am  Break

10:45 am  Panel: Updates on Key Additive Manufacturing Technical Areas
- Testing and Inspections
- Rapid Qualification and Quality Assurance Methods
- Communications and Systems

12:00 am  Lunch (on your own – locations provided*)

1:00 pm  Instructions for Breakout Sessions

Parallel Breakout Sessions: Testing and Inspections (Room 3ABC), Rapid Qualification and Quality Assurance Methods (Room 3D), and Communications and Systems (Room 5)

1:10 pm  Breakout Session I: Desired Future Capabilities and Technologies for Additive Manufacturing
- Envisioned future:
  - Emerging and anticipated future applications for AM.
  - Capabilities we want and need the most.

1:40 pm  Breakout Session II: Challenges and Barriers to Achieving Capabilities and Applications
- Barriers limiting the broader use of additive manufacturing.
- Measurement and standards barriers, challenges, and gaps.
- Prioritization and identification of top challenges (individual voting).

2:30 pm  Break

2:45 pm  Breakout Session III: R&D and Approaches to Address Challenges
- R&D, strategic approaches, and standards/measurements to address top challenges.
- Prioritization and identification of top R&D (individual voting).

3:45 pm  Selection of priority actionable topics for Roadmap.

4:15 pm  Wrap Up and Plan for Next Day (Main Session Room)

4:30 pm  Adjourn

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**Thursday, October 12, 2023**

8:30 am  Registration

9:00 am  Opening Plenary
- **Welcome and Goals for Today** ~ Paul Witherell, NIST

9:15 am  Instructions and Assignments for Breakouts/Roadmap R&D Technical Topic Areas

9:25 am  Break and move to assigned R&D Topic Area Rooms

9:35 am  Breakout Session IV: Pathways for Measurement Science Roadmap (all topics)
- **Small groups work to develop roadmap action plans:**
  - R&D, standards, and other approaches for addressing the high priority challenges.
  - Next steps and actionable plan

11:00 am  Report Outs on Priority Topics

12:00 pm  Wrap Up and Adjourn