

Mid-Scale Manufacturing & Characterization Capacity: Accelerating scale-up and transition of technologies to mitigate DoD critical materials supply challenges – part 2

Part 2: Technology Challenges, Day 1, March 4th (Keck 105)

9:00-9:15	Introduction to workshop	Introduction: Julie / Reliance21 M&MP COI / Erik
9:15-9:30	Analysis	Analysis of Public-Private Partnerships in the Context of Mid-Scale Manufacturing Challenges Analysts: Mark Johnson and Angus Kingon <i>Introduction: Julie Christodoulou</i>
9:30-9:45	Analysis	
9:45-10:00	Analysis	
10:00-10:15	Analysis	
10:15-10:30	Presentation	transmittal of data from low Earth-orbiting satellites to ground stations at the revolutionary rate of 200 gigabits per second. (the efforts that made it possible) Speaker: Jade Wang of (MIT/LL) (Virtual) TBIRD team <i>Introduction and Q&A leads: Pablo Zavattieri</i>
10:30-10:45	Presentation	
10:45-11:00	Break	Coffee break and possibility to talk offline one on one
11:00-11:15	Panel 1	Panel Discussion 1: Response to the Analysis of Public-Private Partnerships Panelists: Robert Rudnitsky (DoC, NIST), Stephanie Watts Butler (former TI) (Virtual) Mick Maher (Consultant, ex-DARPA) Sharon Belenzon (Duke U) and Jade Wang of (MIT/LL) TBIRD team (Virtual) <i>Introduction and Q&A leads: Mark Johnson and Angus Kingon</i>
11:15-11:30	Panel 1	
11:30-11:45	Panel 1	
11:45-12:00	Panel 1	
12:00-12:15	Panel 1	
12:15-12:30	Panel 1	
12:30-12:45	Lunch	
12:45-1:00	Lunch	Lunch and possibility to talk offline one on one
1:00-1:15	Lunch	
1:15-1:30	Lunch	
1:30-1:45	Case 1	
1:45-2:00	Case 1	Lessons learned on the implementation of: High Temperature Ceramics Michael Hunt (JHU/APL): (emphasizing materials and testing) <i>Introduction and Q&A lead: Morgan Trexler</i>
2:00-2:15	Case 1	
2:15-2:30	Case 2	
2:30-2:45	Case 2	Lessons learned on the implementation of: the Bottle Consortium Robert “Bob” Allen (NREL): (emphasizing the different types of PPPs) <i>Introduction and Q&A lead: David Aspnes</i>
2:45-3:00	Case 2	
3:00-3:15	Break	
3:15-3:30	Case 3	Lessons learned on the implementation of: Clinkenbeard’s Successful Rise Reg Gustafson (Clinkenbeard) and James Conley (Northwestern University): <i>Introduction and Q&A lead: Jian Cao</i>
3:30-3:45	Case 3	
3:45-4:00	Case 3	
4:00-4:15	Case 4	Lessons learned: implementation of Industry Partnerships (dual use) Rama Venkatasubramanian (JHU/APL) (emphasizing IP, licensing, dual use) <i>Introduction and Q&A lead: Morgan Trexler</i>
4:15-4:30	Case 4	
4:30-4:45	Case 4	
4:45-5:00	Wrap up day 1	

Part 2: Technology Challenges, Day 2, March 5th (Keck 105)

9:00-9:15	Case 5	Lessons learned on the Development & Implementation of Digital Twins Anthony Rollett (CMU) (<i>emphasizing the STRI work, accelerated qual & cert</i>) <i>Introduction and Q&A lead: David Aspnes</i>
9:15-9:30	Case 5	
9:30-9:45	Case 5	
9:45-10:00	Case 6	Lessons learned on the implementation of: NETL's advanced alloy development David Alman (NETL) (Virtual): (<i>emphasizing NETL's interaction with small companies</i>) <i>Introduction and Q&A lead: Tom Kurfess</i>
10:00-10:15	Case 6	
10:15-10:30	Case 6	
10:30-10:45	Case 7	An Entrepreneur's Playbook - Project from Projects to Products Shaun Walsh (Peak Nano): (<i>A playbook from a company that made the transition</i>) <i>Introduction and Q&A lead: Pablo Zavattieri</i>
10:45-11:00	Case 7	
11:00-11:15	Case 7	
11:15-11:30	Panel 2	Panel on New Methods to Consider for Mid-Scale Implementation Panelist: Bill Bonvillian (MIT) (Virtual) Panelist: Larisa Ciaoca (Duke U) Panelist: Robert Rudnitsky and Donald Ufford (DoC, NIST) Panelist: Brent Carey (Mach-20) <i>Introduction and Q&A leads: Mark Johnson and Angus Kingon</i>
11:30-11:45	Panel 2	
11:45-12:00	Panel 2	
12:00-12:15	Panel 2	
12:15-12:30	Lunch	Lunch and possibility to talk offline one on one
12:30-12:45	Lunch	
12:45-1:00	Lunch	
1:00-1:15	Lunch	
1:15-1:30	Breakout groups	Breakout groups (30min) Topic: <i>Data as opportunities & issues for PPPs and manufacturing</i> , Room 105 Lead Julie Christodoulou Topic: <i>PPPs going forward: creating heuristics for strategic mid-scale manufact.</i> , R202 Lead Angus Kingon Topic: <i>How dual use can be optimized to support mid-scale manufacturing</i> , Room 206 Lead Jian Cao
1:30-1:45	Breakout groups	
1:45-2:00	Break	Coffee break and possibility to talk offline one on one
2:00-2:15	Report	Report out in Room 105: Generating Heuristics to support DoD decision-making in Mid-Scale Manufacturing Topic on : <i>Data as opportunities and issues for PPPs and manufacturing</i> Topic on : <i>PPPs going forward: creating heuristics for strategic mid-scale manufacturing</i> Topic on : <i>How dual use can be optimized to support mid-scale manufacturing</i> <i>Discussion leads: Julie A. Christodoulou, Jian Cao and Angus Kingon</i>
2:15-2:30	Report	
2:30-2:45	Report	
2:45-3:00	Wrap-up	