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Council on
Competitiveness

National Commission on Innovation and Competitiveness Frontiers

Working Group on Developing and Deploying Disruptive Technologies at Scale

Session 1 Discussion Guide

Monday, March 27th, 2023

3:50 p.m. to 5:00 p.m.

Agenda

- 3:50-4:10 – Welcome and Working Group Overview
- 4:10-4:20 – Kick-Off Discussant Remarks
- 4:20-4:50 – Discussion of High-Level Priorities
- 4:50-5:00 – Summary of Takeaways for Plenary

Discussion

Welcome & Working Group Overview (20 min)

Welcome & Introductions

- Moderator (Dr. Adriana Kuiper) will welcome the group and lead a roundtable introduction before providing some opening remarks.

Working Group Charter Issue Areas

- Issue Area 1: Sustaining and properly allocating investments in R&D while removing barriers to commercialization of disruptive technologies.
- Issue Area 2: Reinforcing U.S. innovation leadership through national domestic strategies and international technology statecraft.
- Issue Area 3: Bolstering the security, resiliency, and reliability of critical supply chains.
- Issue Area 4: Leveraging cross-disciplinary partnerships to harness the convergence of disruptive technologies.

Recent Developments Affecting Disruptive Technology Innovation

- Chips and Science Act
- Congressional Focus on China

- Generative AI
- Semiconductor Oversupply
- **Question for Working Group members:** What additional recent scientific, geopolitical, or public policy developments are highly relevant to our Working Group discussions this year?

Kick-Off Discussant Remarks (10 min)

Dr. Jerry Blazey and Mrs. Jaclyn Shaw will provide opening thoughts to frame the Working Group discussion.

High-Level Priorities (30 min)

- What are the largest challenges facing the U.S. innovation landscape today?
- What are some of the most promising opportunities on the horizon for accelerating innovation in disruptive emerging technologies?
- Are any major issues or themes missing from the Working Group charter?
- At a high-level, what are policymakers getting wrong in efforts to support the development and deployment of disruptive technologies? What are they getting right?
- In what areas could this Working Group provide the greatest value-add by developing recommendations for policymakers?

Summary of Takeaways (10 min)

Working Group members will collaboratively summarize key takeaways.

Session 2 Discussion Guide

Tuesday, March 28th, 2023

11:00 a.m. to 1:00 p.m.

Agenda

- 11:00-11:10 – Welcome & Session 1 Recap
- 11:10-12:00 – Topic #1 Discussion
- 12:00-12:50 – Topic #2 Discussion
- 12:50-1:00 – Summary of Takeaways

Discussion

Welcome & Session 1 Recap (10 min)

Moderator (Dr. Thomas Campbell) will provide a brief overview of topics discussed and key takeaways from first session.

Topic 1: Sustaining and properly allocating investments in R&D while removing barriers to commercialization of disruptive technologies (50 min)

Note: The questions below are intended to guide discussion and provide food for thought. Not all questions need to be directly addressed during discussion of a given topic and likely cannot be given time constraints. Moderators and working group participants will collaboratively shape discussion around priority issues.

- What key areas of R&D in critical technologies remain unaddressed or underfunded by the CHIPS and Science Act, the Biden budget, the infrastructure bill, and other recent reinvestments?
- Are any particular disruptive technologies serially underinvested in R&D? Where could the United States stand to gain the most from targeted investments?
- In what ways could the current lab-to-market system be optimized to accelerate commercialization of disruptive technologies? How can the demonstration and scaling of key technologies be supported here at home rather than outsourcing those capabilities?
- How can the United States foster public-private collaboration and partnerships to better facilitate technology development, commercialization, and deployment?
- Have the Manufacturing USA institutes served as an effective model for facilitating technology development and deployment? How could this model be enhanced, expanded, or reconfigured?
- What new programs or mechanisms could be developed and applied to the innovation pipeline to bridge the gap between early-stage R&D and commercial applications?

- How can policymakers address the dimension of speed in technology innovation? How can budgeting, grantmaking, and regulatory processes be improved to accelerate commercialization of breakthroughs here at home?
- Should we expect the investments and incentives in the CHIPS + Science Act to be game-changing in terms of spurring innovation and commercialization of emerging technologies? Why or why not?

Topic 2: Leveraging cross-disciplinary partnerships to harness the convergence of disruptive technologies (50 min)

- Does the United States need to create any new federal programs/initiatives or strengthen particular federal interagency collaborations to support a cross-disciplinary innovation environment?
- Are new models needed for how key agencies seek to fund or incentivize downstream cross-disciplinary research and collaboration?
- How can the private sector best partner with academia, national labs, federal agencies, etc. to foster cross-sectoral approaches to innovation?
- Does any particular convergence of distinct disruptive technologies (e.g., AI, advanced computing, and biotech) merit a unique cross-disciplinary research approach or program at the federal level?

Summary of Takeaways (10 min)

Working Group participants will collaboratively summarize key takeaways.