

# 2022 Additive Manufacturing Workshop

## Final Outbrief

# Additive Manufacturing Portal for Education (AMPED)

### Co Leads:

Courtney Puhl ([courtney.puhl@ncdmm.org](mailto:courtney.puhl@ncdmm.org))

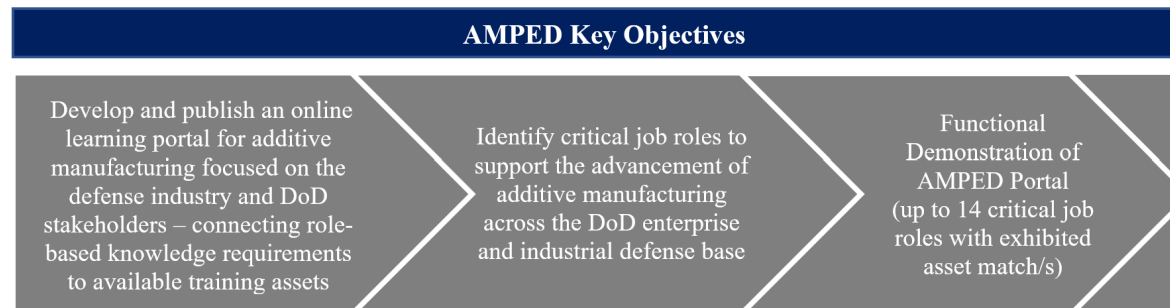
Jeremy Chang ([jian-ming.chang@navy.mil](mailto:jian-ming.chang@navy.mil))

Mateja Fiorille ([mateja.fiorille@ncdmm.org](mailto:mateja.fiorille@ncdmm.org))

Michael Parkyn ([michael.b.parkyn.ctr@mail.mil](mailto:michael.b.parkyn.ctr@mail.mil))

# Additive Manufacturing Portal for Education (AMPED)

## Project Overview:



## Purpose:

The purpose of this project is to build an online learning portal with training assets pathway across America Makes, the DoD enterprise, and industry at large to assist those seeking to enter the additive manufacturing industry to obtain skillsets for the desired job role

## Deliverables:

- Review and Assessment of historical database - Role based assessment for training competencies for AM (interim)
- Review and Assessment of historical database - A database of existing AM training assets in the DoD and industry (interim)
- Functional requirements document for the online educational portal/website (interim)
- Sustainability plan for maintenance and hosting of technology platforms
- An online education portal for AM that links the role-based competency needs to the database of training assets that securely segregates any CUI or restricted access information to the public (final)
- Four Micro-learning modules (web based) focused on DoD/Industry Leadership

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## Objectives:

1. Identify and define critical job roles (listing of additive manufacturing roles validated 2020 AMMO) to support the advancement of additive manufacturing (AM) across the DoD enterprise and industrial defense base
2. Analyze DoD training offerings to identify required metadata categories to be used in AMPED portal
3. Explore key features, functions, usability of the AMPED portal that would be valuable in a sustainable full-scale launch

## Planned Deliverables:

1. Focused list of critical job roles/competencies within DoD/industry required to advance adoption of AM
2. List of most valuable metadata categories to best describe available trainings mapped to required job roles/competencies. Identify existing training assets for focused list of critical job roles. Contrast requirements of different branches of service.
3. Highlight key features and overall functionality of AMPED portal based on working group consensus, while maximizing sustainability of the platform

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- **Accomplishments and Deliverables:**

1. Ranked job roles from 2020 AMMO workshop to AM criticality
2. Documented 11 job role categories required to advance adoption of AM
  - Completed competency modeling for 11 job role categories

**Application  
Materials  
Operations  
Quality**

**Post Processing  
Management  
Safety  
Inspection**

**Design  
Procurement  
Cyber**

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- **Accomplishments and Deliverables:**
  3. Defined list of 25 metadata categories suggested to adequately describe trainings mapped on AMPED
  4. Brainstormed key features and overall functionality of AMPED portal while maximizing sustainability of the platform
    - Working group generated a list of potential features for AMPED portal to maximize usability
    - Working group voted to prioritize most beneficial portal features

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## Key Takeaways (what did you learn that doesn't fit into any other box):

- AMPED tracking metrics can be used to identify gaps in training based on data from searches with no results
- Group members highlighted the need to share “playlist” of successful trainings
- If mapped trainings align to a certification or credential, that will be noted in the AMPED portal
  - America Makes and others do offer trainings that align to certifications/credentials however AMPED itself is not offering any certifications or credentials
- DoD has a sustained need for AM training, amplifying the need for AMPED long term
- Better is the enemy of good enough

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## Recommendations/Next Steps/Potential Engagement:

- Work to balance user convenience with sustainability costs
  - Some “wish list” features are beyond the scope of current project and will drive to unattainable sustainability
  - Sustainability plan will be drafted at the completion of the project (America Makes led)
- Official AMPED project kickoff 7/1/22, 18mo PoP
  - Currently completing contracting with project partners
- AMMO workshop is the first of 2 workshops
  - A second virtual AMPED workshop will be tailored to ensure representation across DoD
- America Makes/OSD are working to identify Project Steering Committee members to contribute to portal requirements, designs, and demo sessions
- America Makes will work to amplify AMPED for further adoption/use

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## Questions?

Please contact our co-leads:

**Courtney Puhl** ([courtney.puhl@ncdmm.org](mailto:courtney.puhl@ncdmm.org))  
**Jeremy Chang** ([jian-ming.chang@navy.mil](mailto:jian-ming.chang@navy.mil))  
**Mateja Fiorille** ([mateja.fiorille@ncdmm.org](mailto:mateja.fiorille@ncdmm.org))  
**Michael Parkyn** ([michael.b.parkyn.ctr@mail.mil](mailto:michael.b.parkyn.ctr@mail.mil))