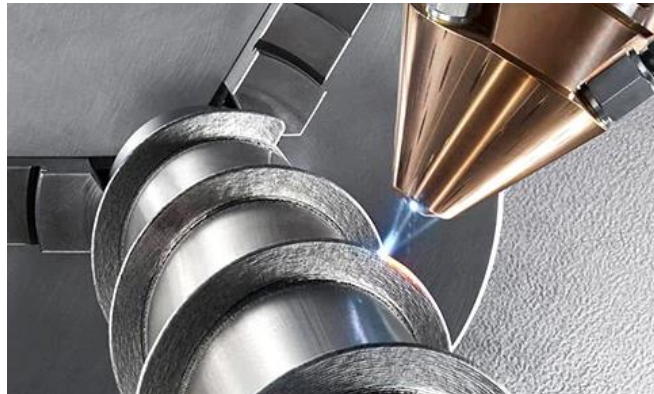
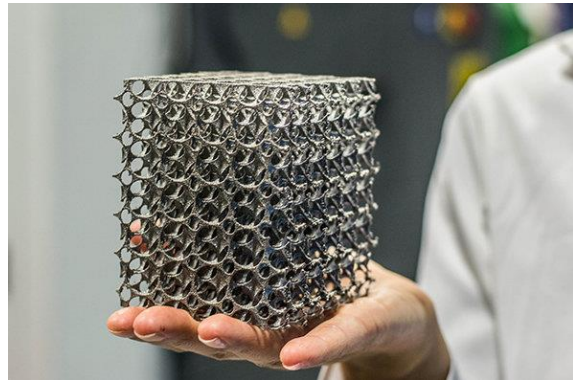
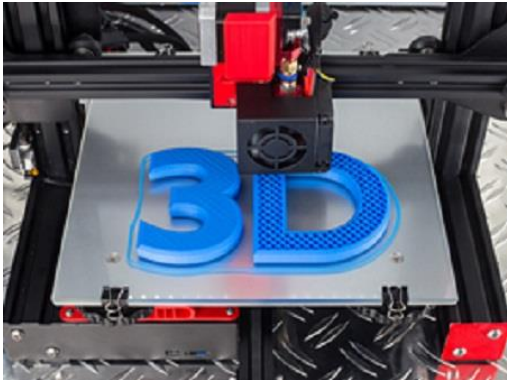


Massachusetts Additive Research and Commercialization Hub (MARCH)



National Strategy for Advanced Manufacturing :

Unlocking the Potential of Additive Manufacturing

- **Develop Innovative Materials and Processing Technologies**
 - Develop additive manufacturing (AM) process optimization frameworks that are accessible to all users. Create new sensors to advance process monitoring and control capabilities. Develop machine learning algorithms to analyze large, secure, interoperable data streams and realize feedback control. Produce tools to create new AM-specific materials and capabilities. Integrate additive manufacturing technologies with smart manufacturing platforms
- **Enhance Supply Chain Connections**
 - Small Manufacturers are falling behind large mfgs in technology investment – in some cases slowness of suppliers in adopting additive manufacturing has created bottlenecks fo easespacde an defense mfgs in forging and casting supply chains.
- **Develop the corresponding workforce**

SPOTLIGHT:
MASSACHUSETTS

Industry

Enabling Technologies

Academia

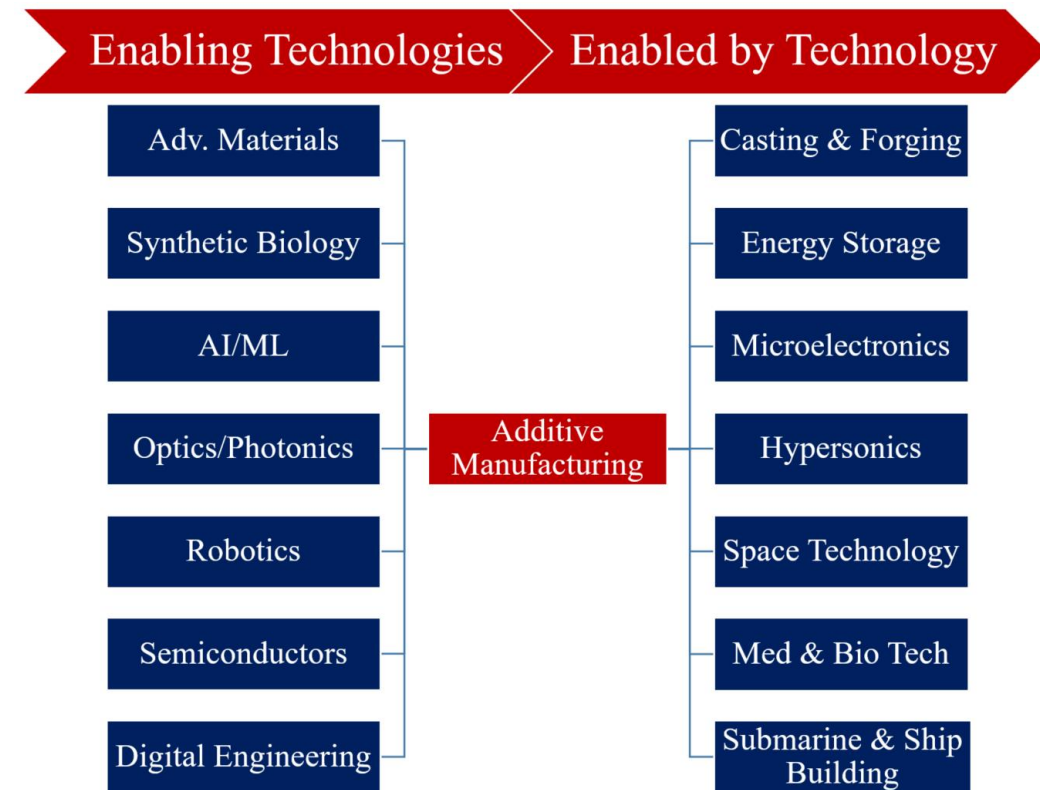
Research Centers



MARCH Consortium's Mission & Vision

GOAL: Strengthen the additive manufacturing process and production system value chains, by connecting and aligning the regional additive strengths, stakeholders, and capabilities into a cohesive technology, innovation, and workforce development ecosystem centered in Massachusetts.

- Basic RESEARCH of new advanced materials, novel processing methods, integration of multiple value-add secondary operations or process steps, and system-of-system embodiments that leverage AI, robotics, and other technologies.
- Leverage small to medium manufacturers to deepen DOMESTIC SUPPLY CHAINS of additive manufacturing production systems
- All surrounded by a coordinated EDUCATION and WORKFORCE DEVELOPMENT system that delivers a strong, talented, technical workforce.



MARCH Consortium Members (as of 10/19/22)

INDUSTRY



DEVCOM ARL Northeast

ACADEMIA



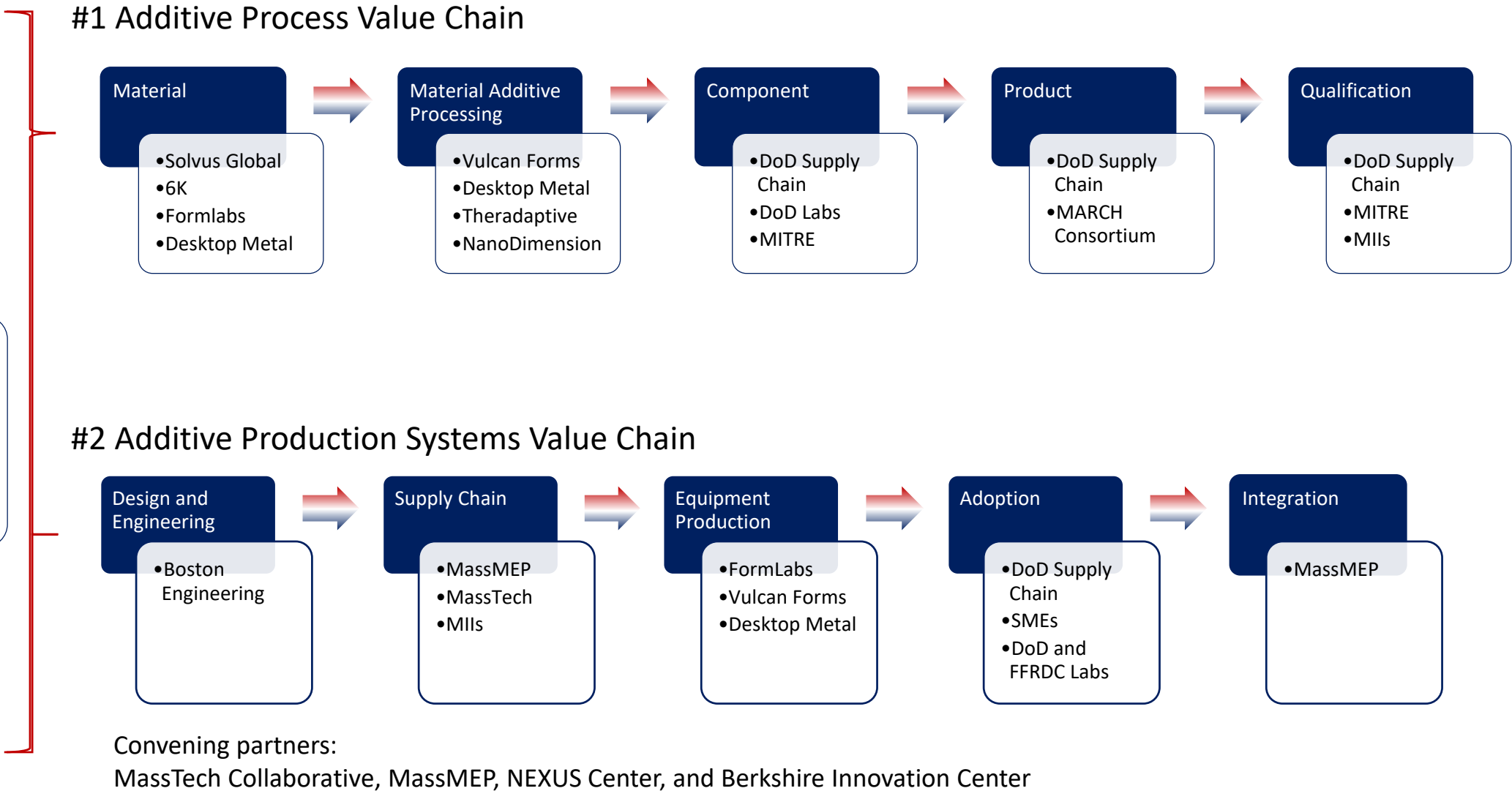
CONVENING PARTNERS



M-USA INSTITUTES



A 2-Stage Value Chain Approach is Needed



Research, Value Chain, and Workforce Activities

Value Chain Support Activities	Activity	Description
	Municipal Powder Storage Playbook	Develop best-practices playbook for AM vendors, adopters, and municipalities to reference for metal powder storage and handling to streamline supply expansion
	Material and Component Qualification Standards Support	Support MARCH members' efforts to establish material and component qualification methods and standards for Defense purposes. May be leveraged in combination with Advanced Research Grants.
	AM Facility Network and SME Network Project Grants	Establish a Facility Network across MARCH consortium and broader AM ecosystem to enable access for SMEs to evaluate use of AM production systems. Reference MeHI Digital Health Sandbox Program and M2I2 LEAP Network
	SME Adoption and Integration Support Grants	Establish AM production system integration support for SMEs to align additional processes or enterprise software systems in their facilities.
Workforce Pipeline Activities	CMMC 2.0 Support Grants	Support SMEs adopting AM production systems to ensure cybersecurity equipment, operations, and workforce. May leverage MA SOC/Range capabilities being developed through the MassCyberCenter
	Activity	Description
	Multipurpose Additive Content	Additive training, interest, and awareness content that can be leveraged by multiple audiences across the K-12, community college, voctech, university, and reskill/upskill pipeline. May be leveraged in combination with Advanced Research Grants
	Incumbent Worker Training	Support for training programs, that expose and train incumbant workers, ranging from machinists to bioengineers, not skilled in additive manufacturing or its impact on engineering lifecycle processes
	Service Member Training	Support for training programs, that expose and train service members not skilled in additive manufacturing or its impact on engineering lifecycle processes
	Additive Pipeline Development Programs	Curriculum, equipment, and other resources support, improve, or scale full K-12, community college, voc tech, university, and reskill/upskill pipeline. May be leveraged in combination with Advanced Research Grants
	MassMakes Marketing Support	Dedicated resources for additive manufacturing and enabling technology skills in advanced manufacturing for MassMakes website and marketing/outreach campaign.

Massachusetts Additive Research and Commercialization Hub (MARCH)

GET INVOLVED!

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