

Problem Statement: SMMs are losing competitiveness as larger companies adopt industry 4.0 technology but SMMs struggle to do so.

SMM Goals: • Reduce supply chain disruption due to shortage of legacy parts; • Address shortage of personnel with experience in additive mfg.

MEP Goals: • Advance use of Industry 4.0 technologies among SMMs; • Build long-term relationships with SMMs and university

University Goals: • Provide engaged learning experiences for Students leading to job placement; • Build long-term relationships with SMMs

Resources/Inputs	Activities	Outputs	ST Outcomes	LT outcomes
University resources: • Student labor • Faculty expertise • University equipment and software	University Activities: • Student training; • SMM and MEP Technology demonstration/ training • Part design and prototyping • Develop training materials	University Outputs: • Trained Students • Prototype part • Training manual for SMM employees	University ST outcomes • Students learn application of skills in mfg environment • Faculty learn how to work with SMMs	University LT outcomes • Build additional projects for engaged learning • Students employed in SMMs • Relationship with SMM
MEP resources • Staff expertise • Connections to consultants • MEP National network	MEP Activities • SMM Outreach and Communication • Value Stream Mapping and Cost analysis • Review training materials	MEP outputs • Value Stream Mapping and Cost analysis results and recommendations	MEP ST Outcomes • MEP builds relationship with university and SMM • MEP staff understand industry 4.0 tech and university assets	MEP LT Outcomes • MEP accelerates industry 4.0 among SMMs
SMM resources • Process and product knowledge • Staff and Equipment • Financial resources	SMM Activities • Prototype testing • Implement training	SMM Outputs • Redesigned parts and processes	SMM ST Outcomes • Deployment of 3D P for new part • Hire university graduate	SMM LT Outcomes • Successful replacement of legacy part • All eorkers trained in 3DP

Metrics:
 SMM: Change in assembly delay • Change in cost of part • Positions filled
 HEI: Number of students with engaged learning experiences • Number of students placed
 MEP: Engagement with SMM for additional projects • SMM cost savings • SMM Investment

Problem Statement:

SMM Goals:

MEP Goals:

HEI Goals:

Resources/Inputs	Activities	Outputs	ST Outcomes	LT outcomes
HEI inputs	HEI Activities	HEI Outputs	HEI ST outcomes	HEI LT outcomes
MEP inputs	MEP Activities	MEP outputs	MEP ST Outcomes	MEP LT Outcomes
SMM Inputs	SMM Activities	SMM Outputs	SMM ST Outcomes	SMM LT Outcomes

Metrics:
SMM:
HEI:
MEP