Manufacturing Technology Working Group

Substitute Senate Bill No. 1021
Special Act No 21-24

VSM Workstream Update
Dec 15, 2021

VSM: Value Stream Mapping

Objective: Map out current state value stream of provider network (Deliverable 2)
Lead: CONNSTEP

Deliverables

Relevant to VSM Workstream

Conduct value-stream mapping and other analyses, as needed, to assess the flow of services from the entities* identified. Such analyses shall include, but need not be limited to,

- identification of the extent to which such services complement, conflict with or duplicate each other,

- assessment of the relative impacts of such services on the manufacturers served,

- identification of gaps in services provided relative to the Industry 4.0 technology needs of manufacturers,

*all entities that receive state or federal funding for the purpose of researching, developing, training, marketing, consulting or deploying Industry 4.0 technology or associates services, directly to, or for the benefit of, manufacturing startups, small and mid-sized manufacturers or other businesses primarily engaged in manufacturing

I4.0 Providers   Manufacturers

Scope

Current state

- Customer: SMM
- Suppliers: state/federal-funded providers of Industry 4.0 services

Analysis Tool

- SIPOC (suppliers, inputs, process, outputs, customers)
    - A visual tool for documenting a business process from beginning to end prior to implementation

What will we analyze

- Elements of current state of the steps a SMM would take integrate I4.0 technology into the business

Process Map

Opportunity Identification → Engage Ecosystem → Identify, Evaluate, & Select Solution → Identify, Evaluate, & Select Provider → Proceed? → Develop Project Plan → Solution Implementation

SIPOC Event Output

Process Name: Industry 4.0 Engagement by Manufacturers			Date: 18 Nov 2021
Scope: Elements of current state of the steps a SMM would take integrate I4.0 technology in business		Notes: Prepared by the MTWG VSM Workstream	

SIPOC Diagram

Suppliers	Inputs	Processes	Outputs	Customers
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?
Business Systems Employees Voice of the Customer Energy Markets Employee Demographics Economy World Events	Process Value Stream Business Metrics Performance Market Opportunity Market Conditions Technology Mindset	1. Identify - Identify Problem - Identify Need or Want - Identify Opportunity	Full Problem Definition Process Value Stream Business Metrics (include as much ROI as available)	Stakeholders
Stakeholders from Step 1 Personal Experience Networks Directors Economic Developers	Specifics of problem to solve Knowledge of Ecosystem	2. Engage Ecosystem	Knowledge Awareness of Potential Solutions Awareness of Potential Providers	Project Champion (Problem Owner)

Project Champion
Agencies
Academia
 	
Vendors
	Information from Ecosystem
	Problem resolution options
	Opinion of Problem Owner
	
	Opinion of Decision Maker
		3. Identify Solutions
		   Evaluate Solutions
		   Select Solutions
			Solution Set Priorities
			Information
			Provider Set with cost and decision matrix
			Identification of Process - People - Technology that is impacted
				Decision Maker(s)

SIPOC Event Output

Suppliers	Inputs	Processes	Outputs	Customers
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?

Providers
Ecosystem
Stakeholders
	Outputs from Step 3
	Benchmarks
	Implementation capability of providers
	What, How, When
	Budget and Operational
		4. Identify Providers
		   Evaluate Providers
		   Select Providers
			Provider set
			Cost
			Decision Matrix
			
			Change Management Plan
				Decision Maker(s)

Stakeholders	Outputs from previous steps Business Case - ROI - Capital requirements and grant options	5. Go/No-Go	Decision/Authority to Proceed	Project Champion Solution Provider(s)
Suppliers from previous steps Internal Resources	Information from previous steps Operational Needs Risk Analysis Readiness - Physical and facilities - Skillsets and training - Mindset and Change	6. Develop Project Plan with timing	Steps Timing Resource Allocation	Stakeholders
Stakeholders Supplier and Providers	Outputs from step 6	7. Implement Solution	New process operational Ready to Service (RTS)	Stakeholders

Next Steps

1. Reconvene with biweekly cadence on Jan 5, 2022 at 11:00 am