



US DEPARTMENT OF LABOR

**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM
OVERVIEW / ORIENTATION**

OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

OVERVIEW TOPICS

1. MISSION & FOCUS

2. ORGANIZATION MODEL

3. THE PROCESS

a. WHO

b. WHAT

c. HOW

d. WHEN

4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE

5. THE WORK PLAN . . .



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

THE GRANT – MISSION and FOCUS

ONE SENTENCE MISSION:

- Improve Manufacturing Education to better align with Industry and Student Requirements (Customers)

FOCUS:

- National Innovation with Local Implementation
- Competency Based Education Approach
- National Standard Competencies & Assessments
- Continuous Improvement . . . (Never stops)



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

OVERVIEW TOPICS

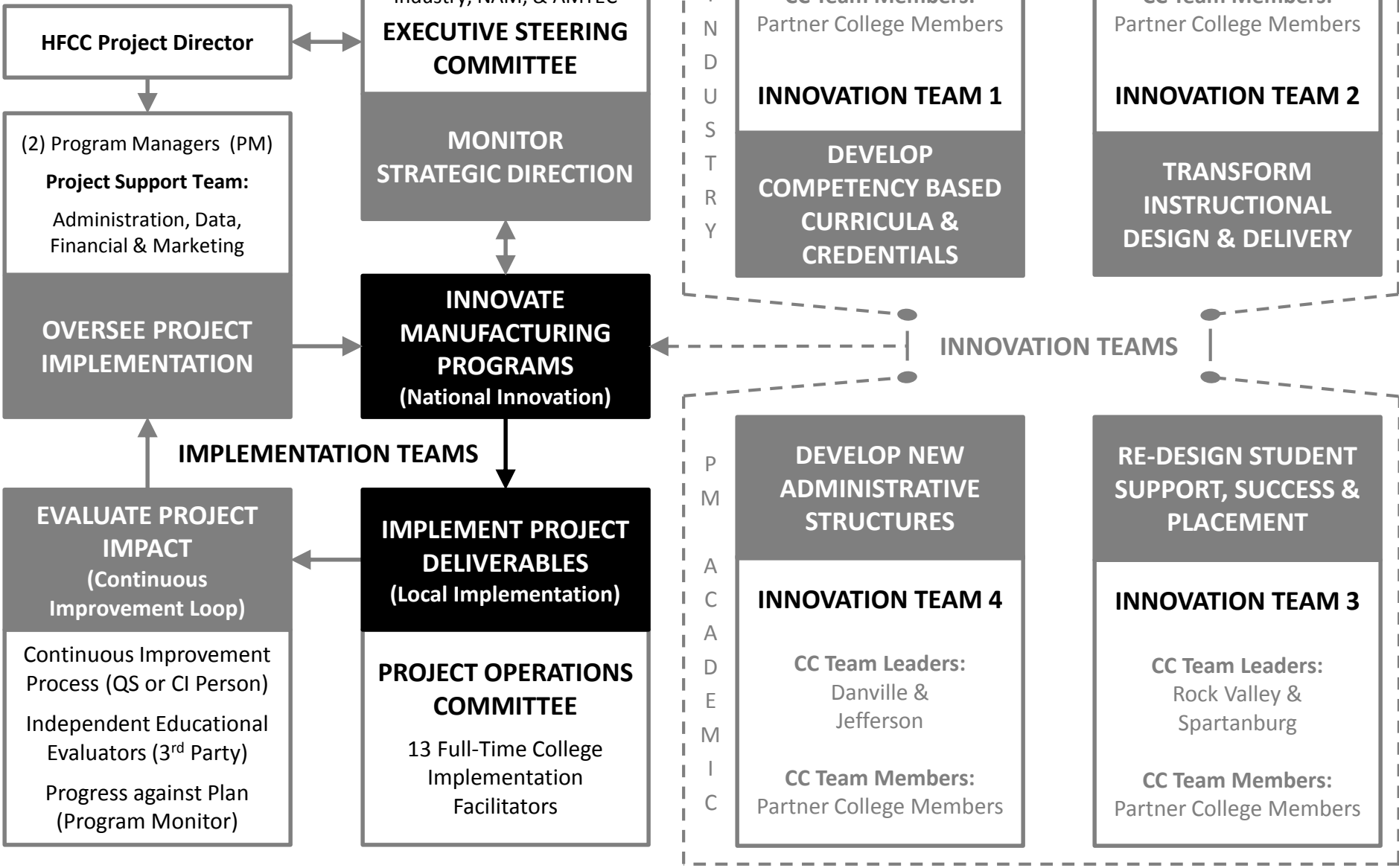
1. MISSION & FOCUS
- 2. ORGANIZATION MODEL**
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**



Organization Model



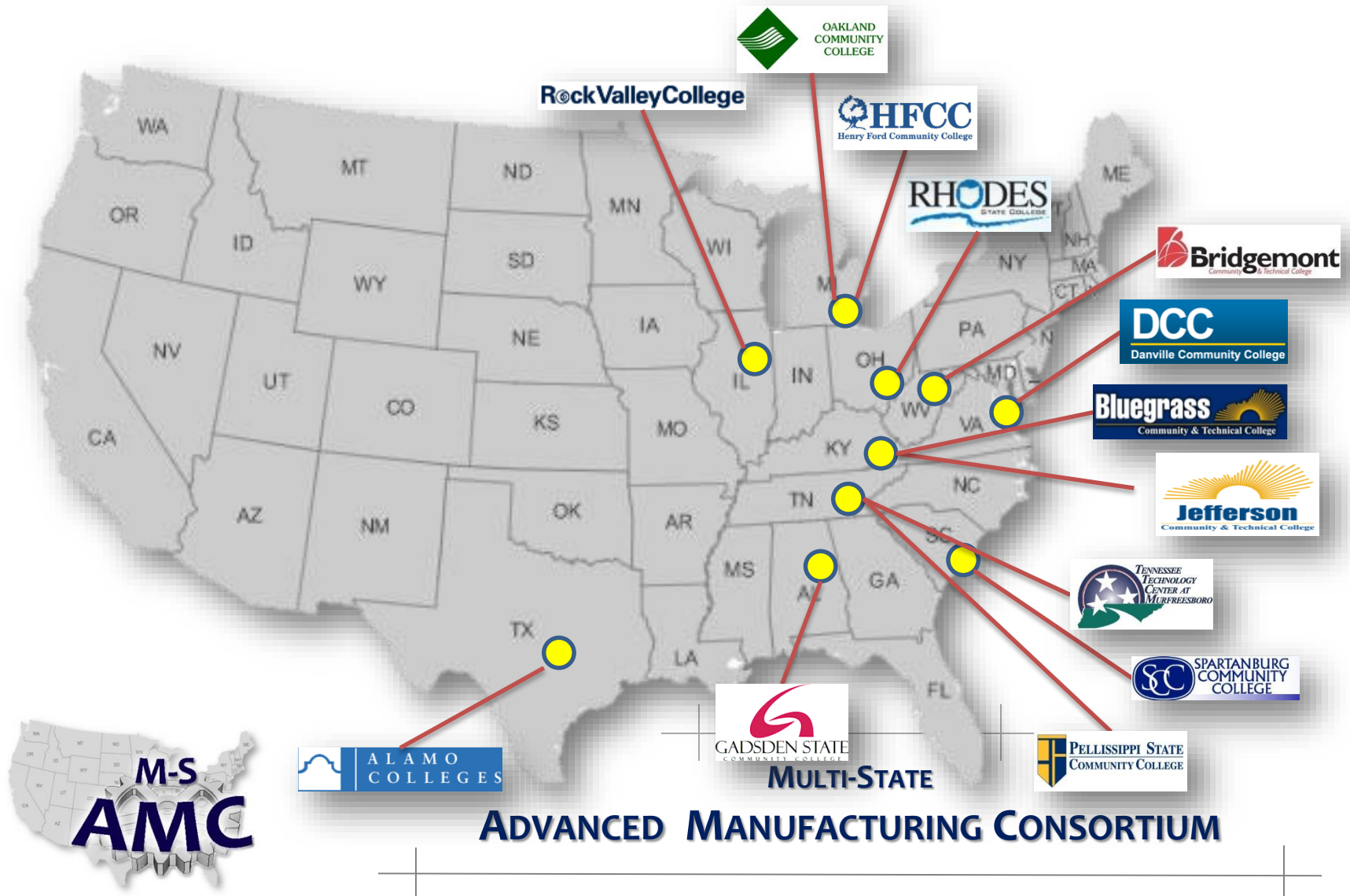
OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
- 3. THE PROCESS**
 - a. WHO**
 - b. WHAT
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .

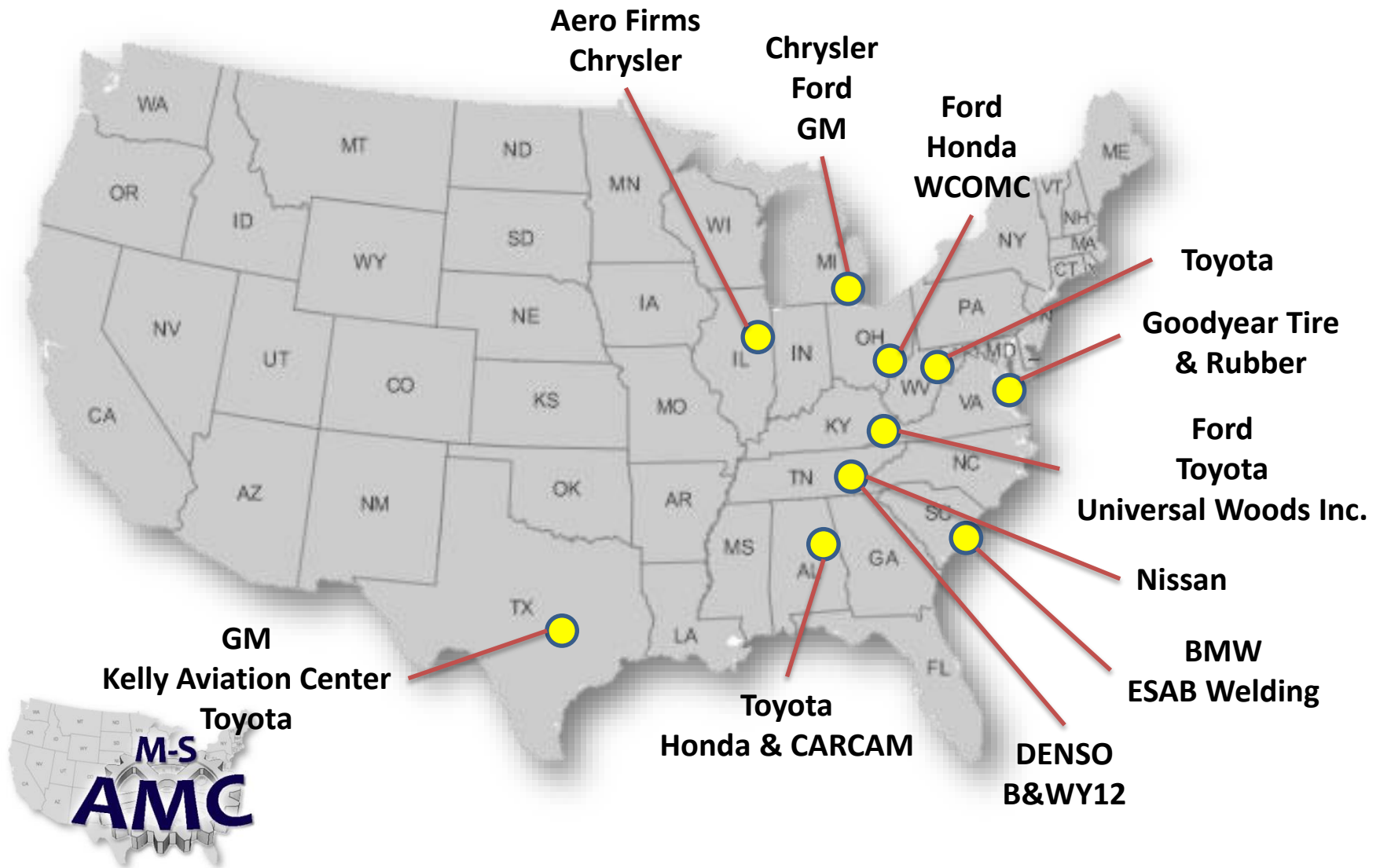


**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

M-S AMC: 13 College Partners



M-S AMC: Targeted Local Industry Partners



M-S AMC: 13 College Partners

Community College Partner	Location	Business Partner Letters
Alamo Community College	San Antonio, Texas	Argo Group International Holdngs, Ltd.
Bluegrass Community and Technical College	Georgetown, Kentucky	Leggett and Platt, Inc.
Bridgemont Community College	Charleston, West Virginia	TRG Customer Solutions, Inc.
Danville Community College	Danville, Virginia	Goodyear, Shorewood Packaging
Gadsden State Community College	Gadsden, Alabama	Elwood Manpower, and Personnel Staffing, Inc.
Henry Ford Community College	Dearborn, Michigan	Chrysler, Ford, GM, Severstal Dearborn
Jefferson Community and Technical College	Louisville, Kentucky	Louisville Bedding Company
Oakland Community College	Auburn Hills, Michigan	Delphi Corporation
Pelissippi State Community College	Knoxville, Tennessee	ArcelorMittal Laplace, LLC
Rock Valley Community Colege	Rockford, Illinois	Gatehouse Media IL Holding, Inc.
Rhodes Community College	Lima, Ohio	International Brake Industries, Inc.
Spartanburg Community College	Spartanburg, South Carolina	Teijin Monofilament U.S., Inc.
TCAT – Tennessee College of Applied Technology	Murfreesboro, Tennessee	Nissan



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

M-S AMC: National Project Partners



CSW

Corporation for a
Skilled Workforce

Good Jobs. Thriving Communities.



FANUC
Robotics



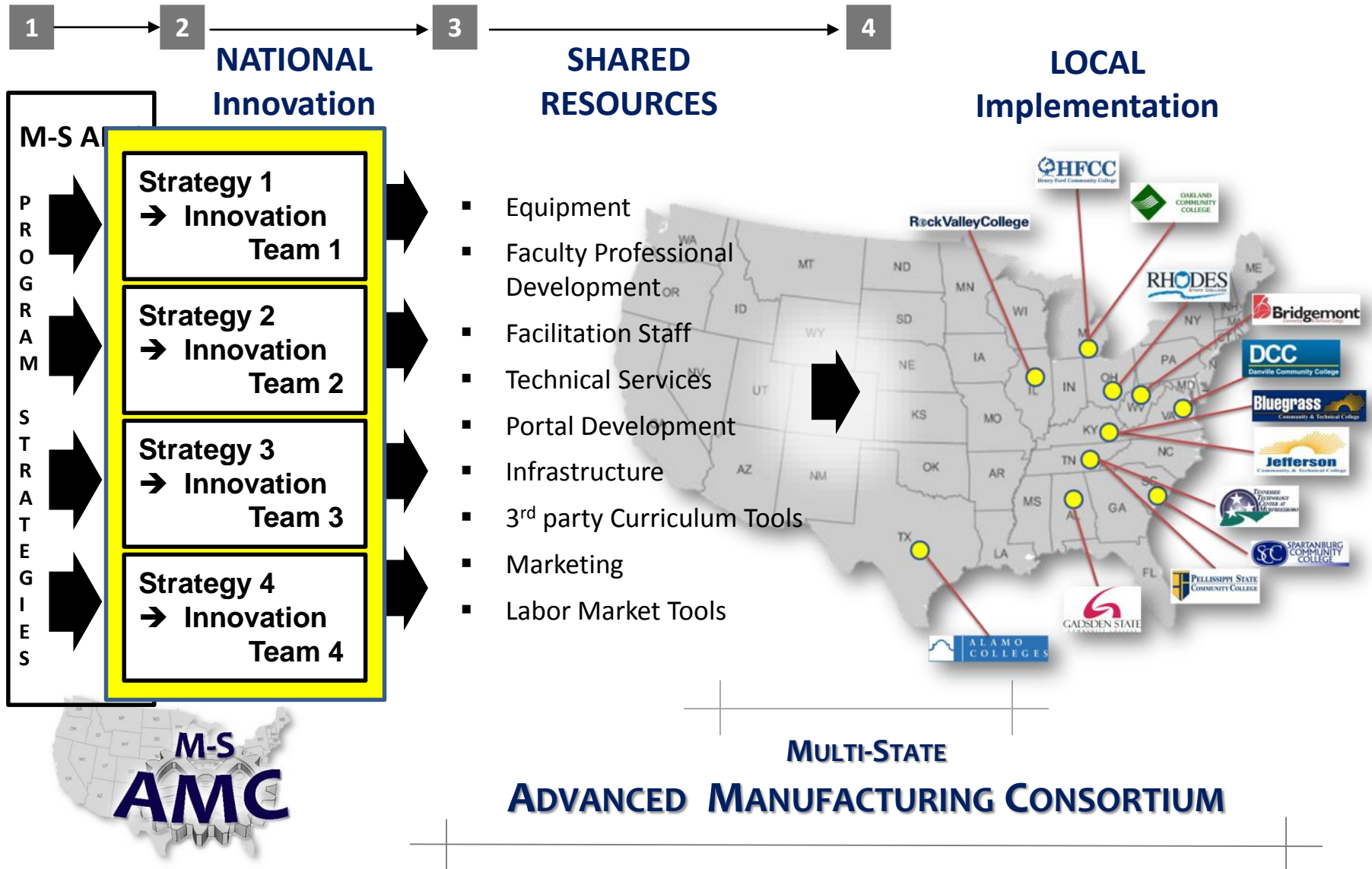
M. NATIONAL ASSOCIATION OF
Manufacturers



MULTI-STATE

ADVANCED MANUFACTURING CONSORTIUM

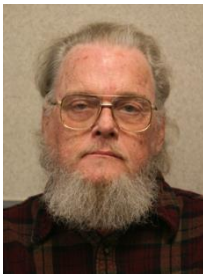
M-S AMC: National Innovation with Regional Implementation



INNOVATION



TEAM 1



Pat Riddle - PSCC
I-Team Co-Leader



Joel Milinsky - HFCC
I-Team Co-Leader



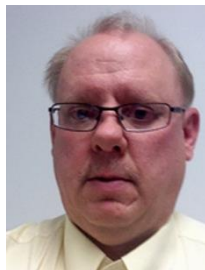
Dr. Juan Song - ACC
Consensus Member



Jeff Arnold - DCC
Consensus Member



Lynn Dale - SCC
Associate Member



Dr Paul Dettmann - RSCC
Consensus Member



Paul Turner - BCTC
Consensus Member

INNOVATION



TEAM 2



Mike Franklin - BCTC
I-Team Co-Leader



Charlie Wesenberg - TCAT
I-Team Co-Leader



Marv Crowe - SCC
Consensus Member



Norm Mortensen - BCTC
Consensus Member



Paul Turner - BCTC
Associate Member



Peter Klein - OCC
Consensus Member



Stephen Wray - DCC
Consensus Member



Angela Cox - JCTC
I-Team Co-Leader



Gerald Sexton - DCC
I-Team Co-Leader



Beverly Hilderbrand - GSCC
Consensus Member



Jay Coffey - SCC
Consensus Member



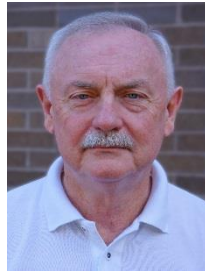
Linda Morris - GSCC
Consensus Member



Dr. Lynn Kreider - TCAT
Consensus Member



Margo Meyer - RSCC
Consensus Member



Marv Crowe - SCC
Associate Member

INNOVATION



TEAM 3



Jeff Hunt - SCC
I-Team Co-Leader



John Jamont - RVCC
I-Team Co-Leader



Janene Erne - OCC
Consensus Member



Dr. Juan Song - ACC
Associate Member



Lynn Dale - SCC
Consensus Member



Margo Meyer - RSCC
Associate Member



OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
- 3. THE PROCESS**
 - a. WHO
 - b. WHAT**
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

WHAT

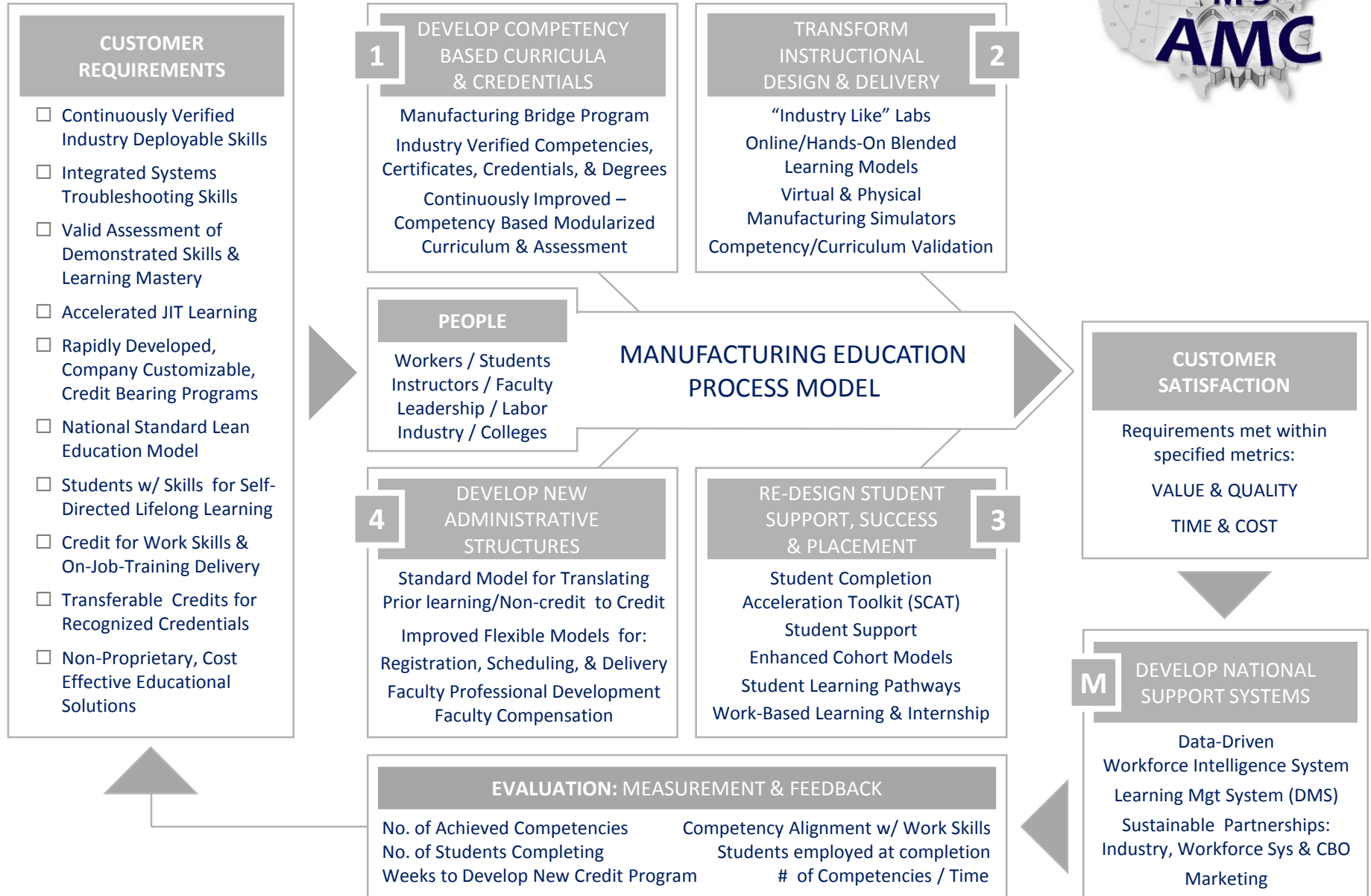
Using a PROCESS MODEL . . .

- Provides a “Picture of the Process”
 - Driven by Customer Requirements
 - Focused on Customer Satisfaction
 - Considers every category of the work
 - Specifies metrics for Improvement
-
- Facilitates the PROCESS



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

M-S AMC [Multi-State Advanced Manufacturing Consortium]



OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
- 3. THE PROCESS**
 - a. WHO
 - b. WHAT
 - c. HOW**
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

HOW

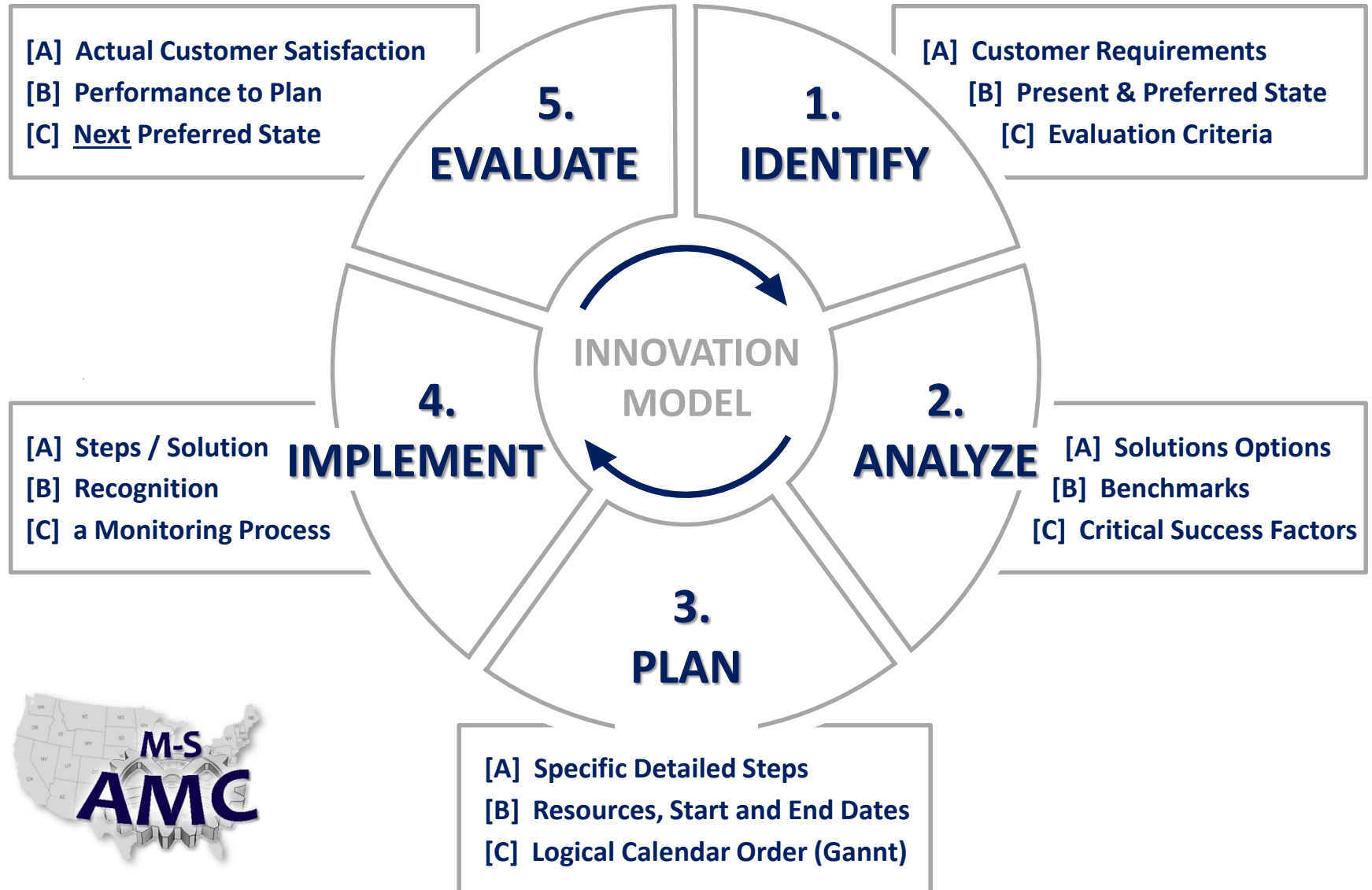
Using an INNOVATION MODEL . . .

- 5 Steps “Lead people through the process”
- Facilitates the THINKING
- Can result in “Consensus Based Recommendations”



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

5 STEP INNOVATION MODEL



OVERVIEW TOPICS

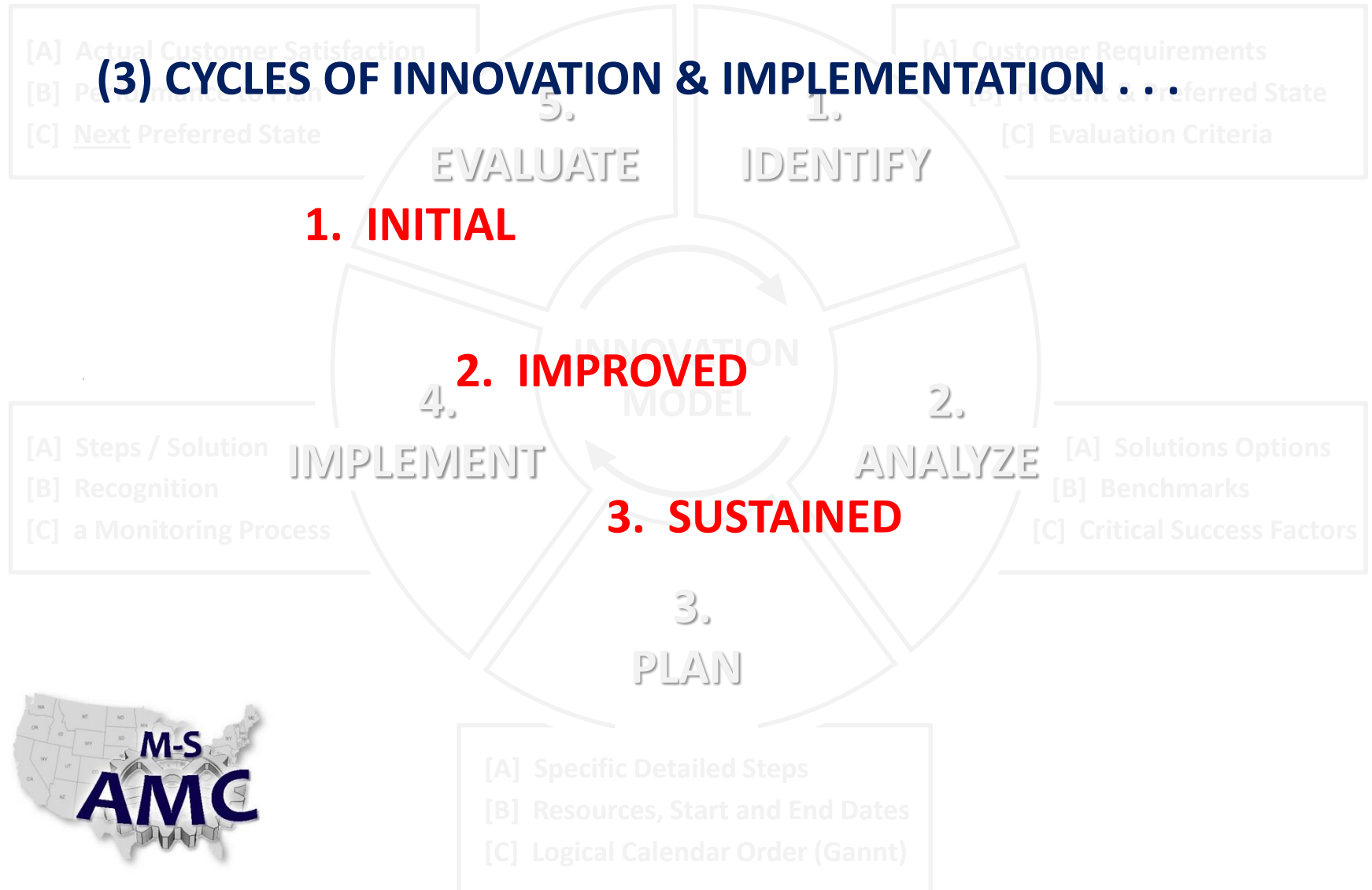
1. MISSION & FOCUS
2. ORGANIZATION MODEL
- 3. THE PROCESS**
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN**
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

WHEN

(3) CYCLES OF INNOVATION & IMPLEMENTATION . . .



INNOVATION CYCLE 1 – INITIAL IMPLEMENTATION & TIMING

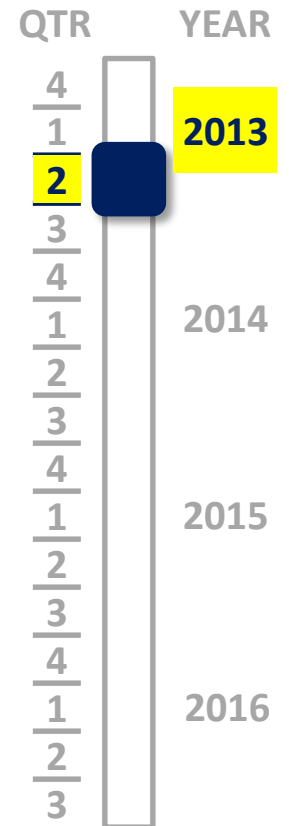
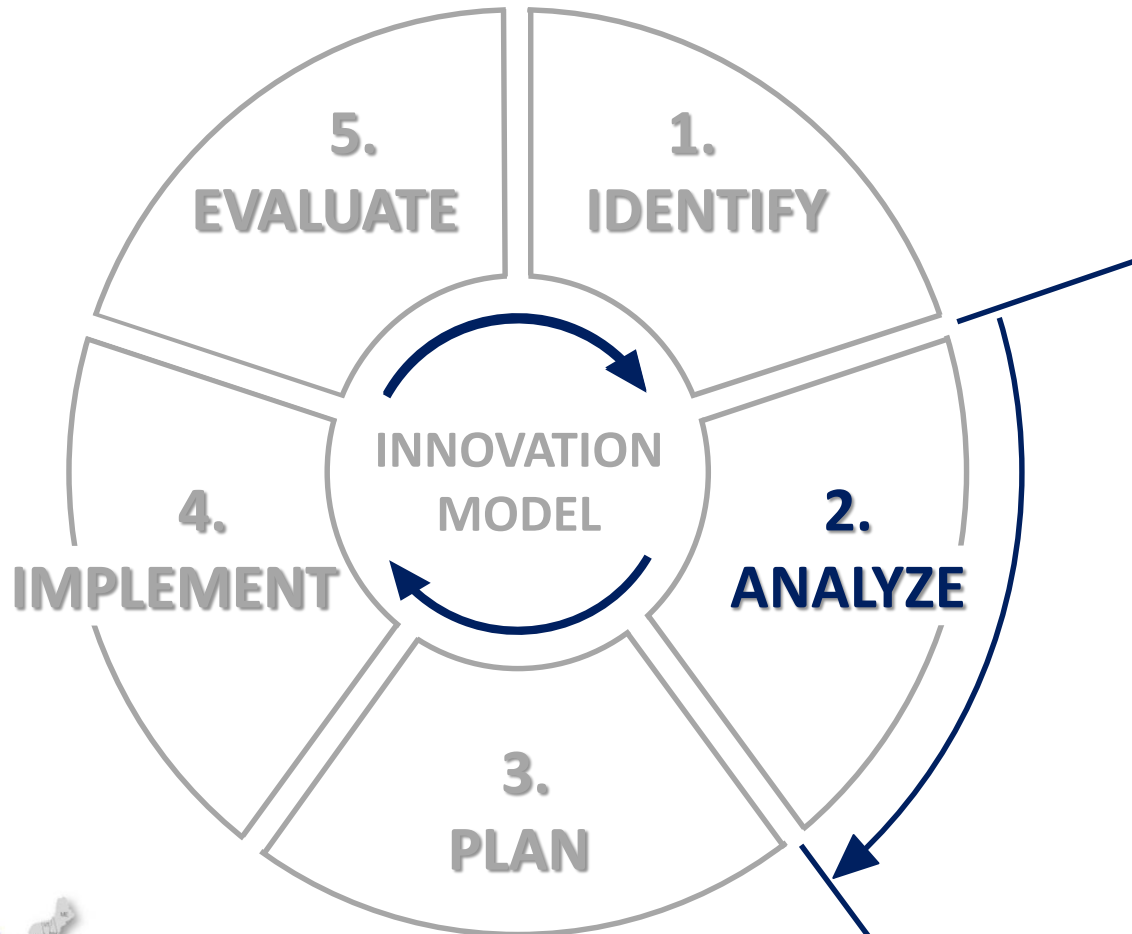


QTR	YEAR
4	2013
1	
2	
3	
4	2014
1	
2	
3	
4	2015
1	
2	
3	
4	2016
1	
2	
3	



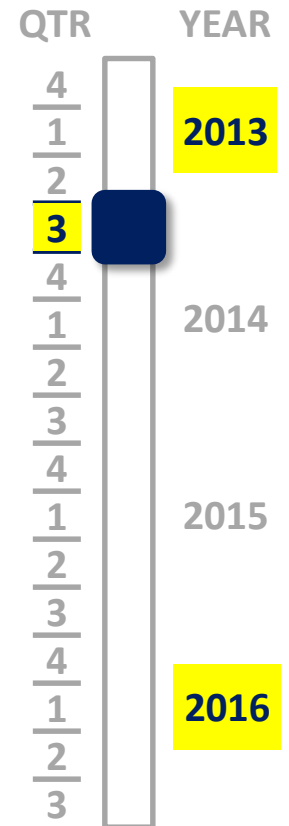
INITIAL
IMPLEMENTATION

INNOVATION CYCLE 1 – INITIAL IMPLEMENTATION & TIMING



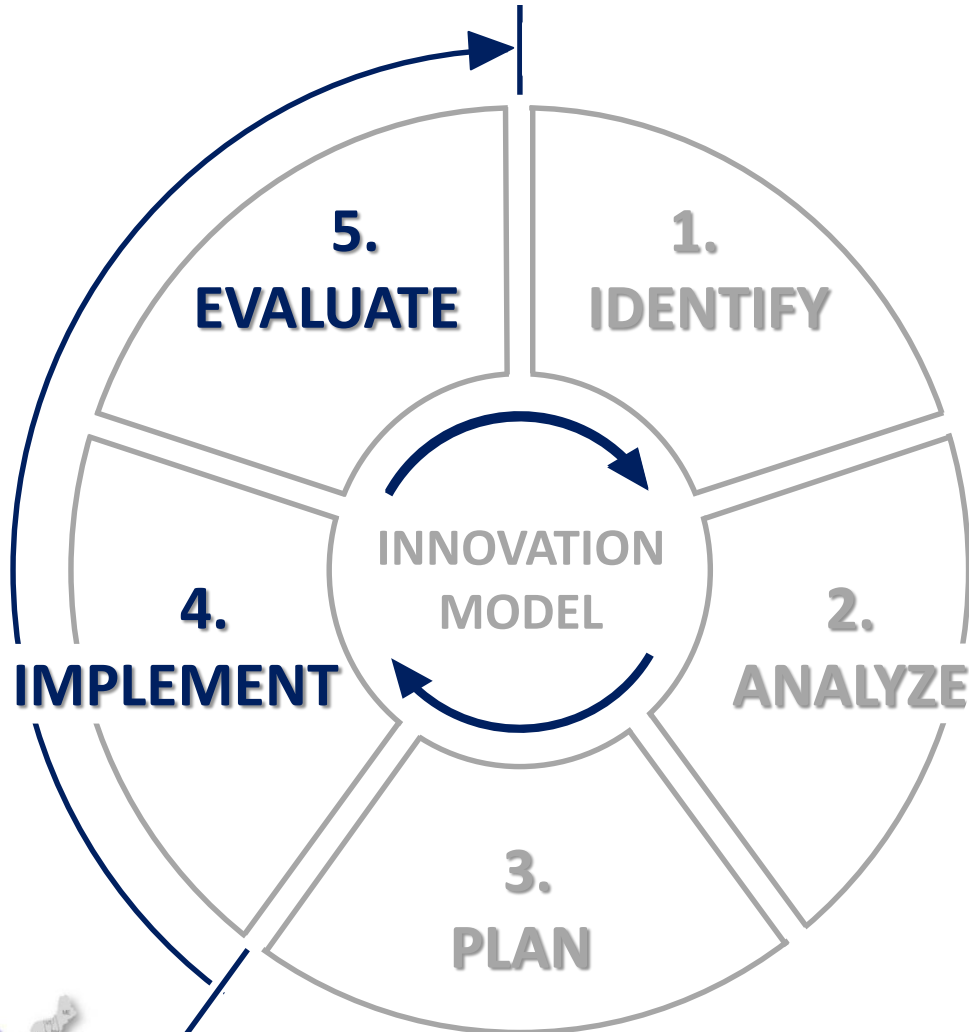
INITIAL
IMPLEMENTATION

INNOVATION CYCLE 1 – INITIAL IMPLEMENTATION & TIMING



INITIAL
IMPLEMENTATION

INNOVATION CYCLE 1 – INITIAL IMPLEMENTATION & TIMING

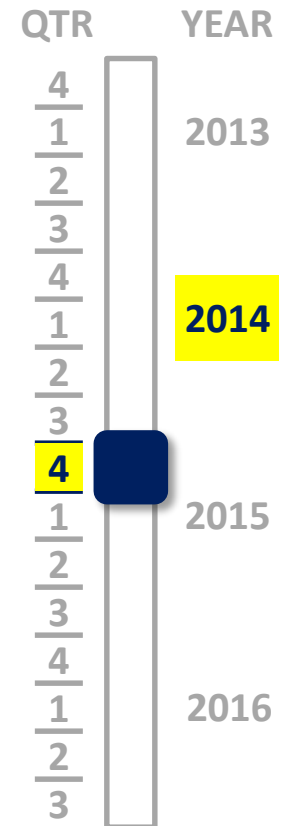
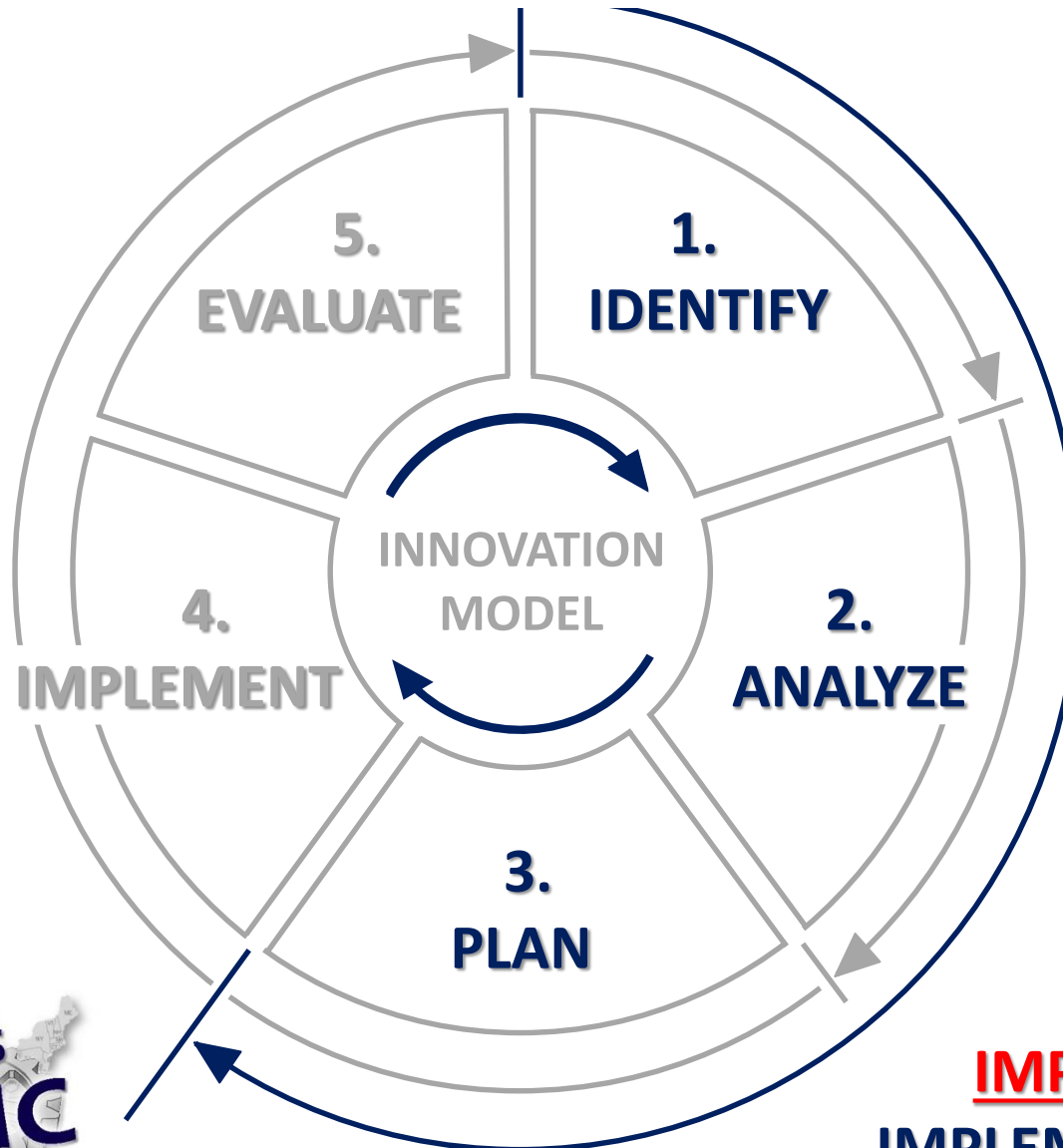


QTR	YEAR
4	2013
1	
2	
3	
4	2014
1	
2	
3	
4	2015
1	
2	
3	
4	2016
1	
2	
3	



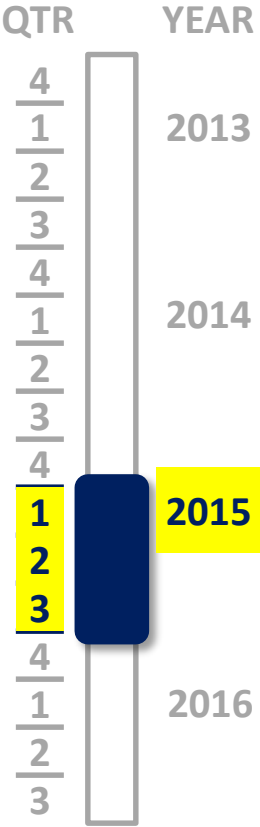
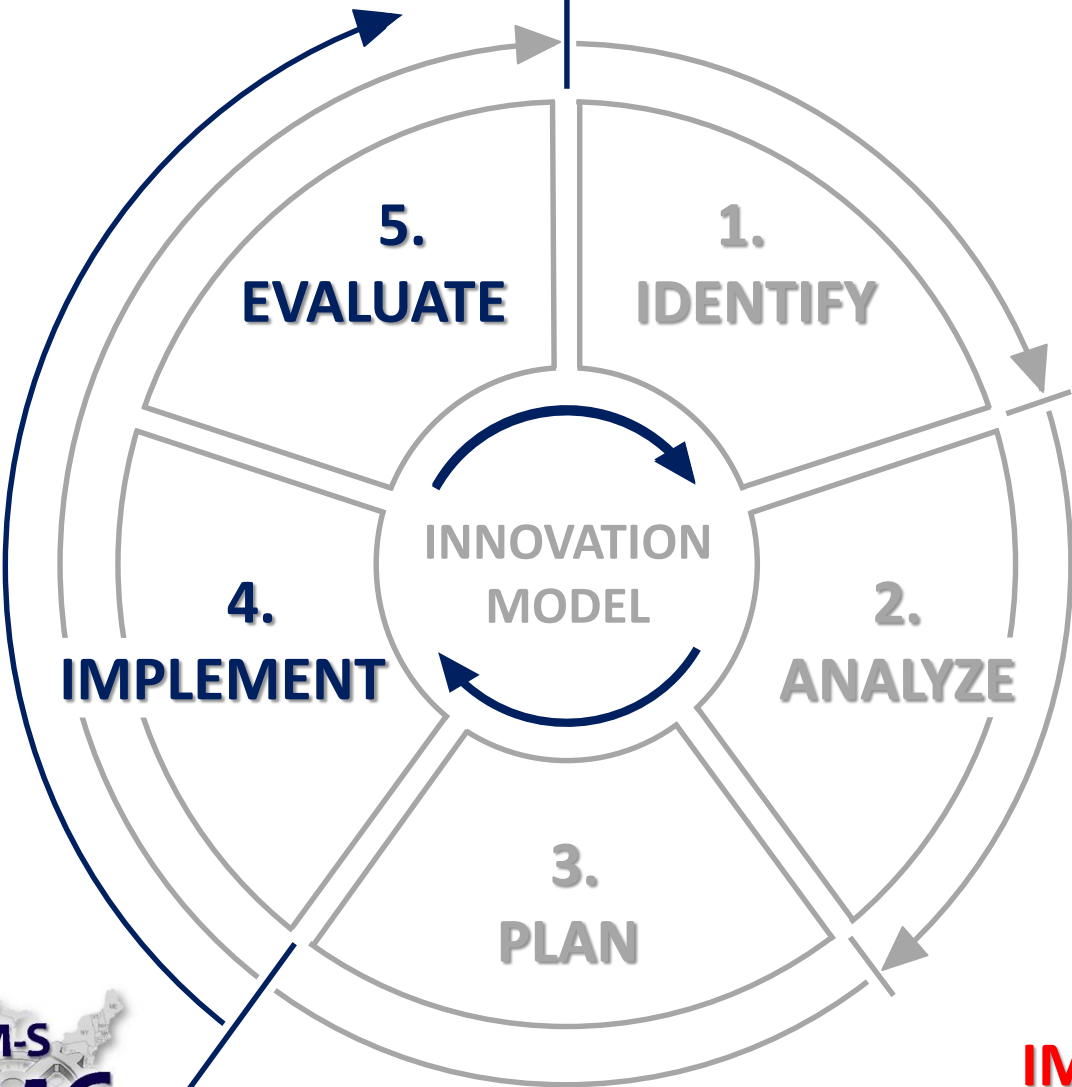
INITIAL
IMPLEMENTATION

INNOVATION CYCLE 2 – IMPROVED IMPLEMENTATION & TIMING



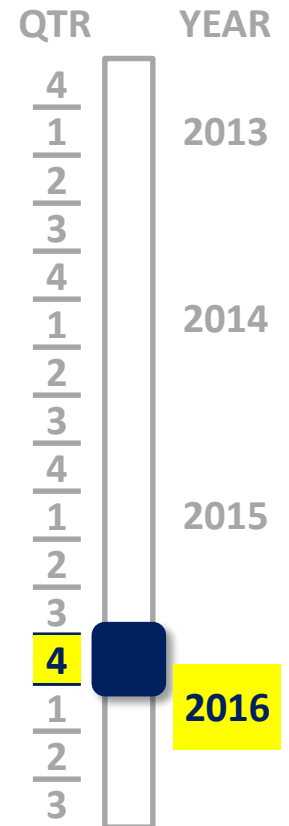
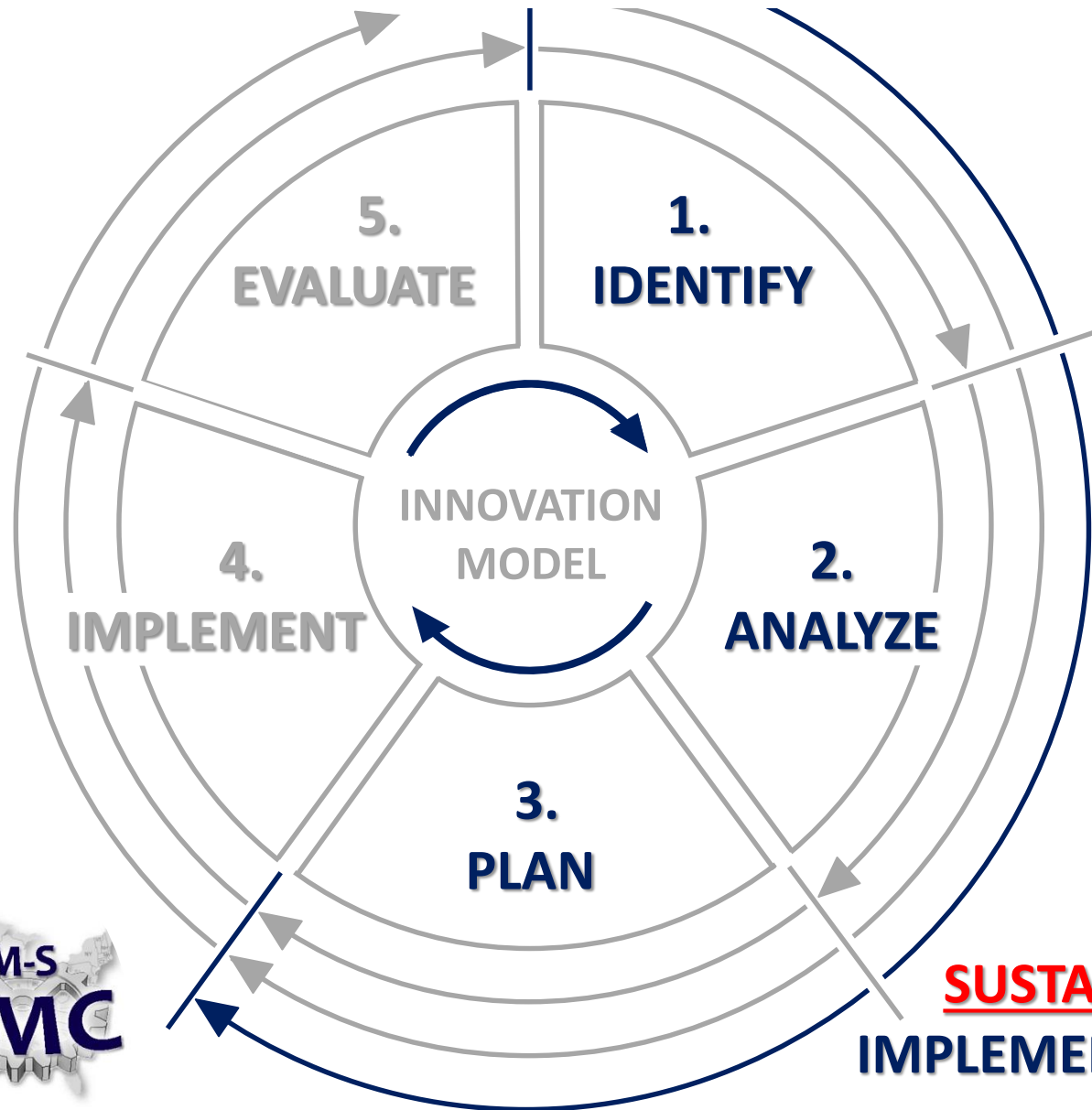
IMPROVED
IMPLEMENTATION

INNOVATION CYCLE 2 – IMPROVED IMPLEMENTATION & TIMING

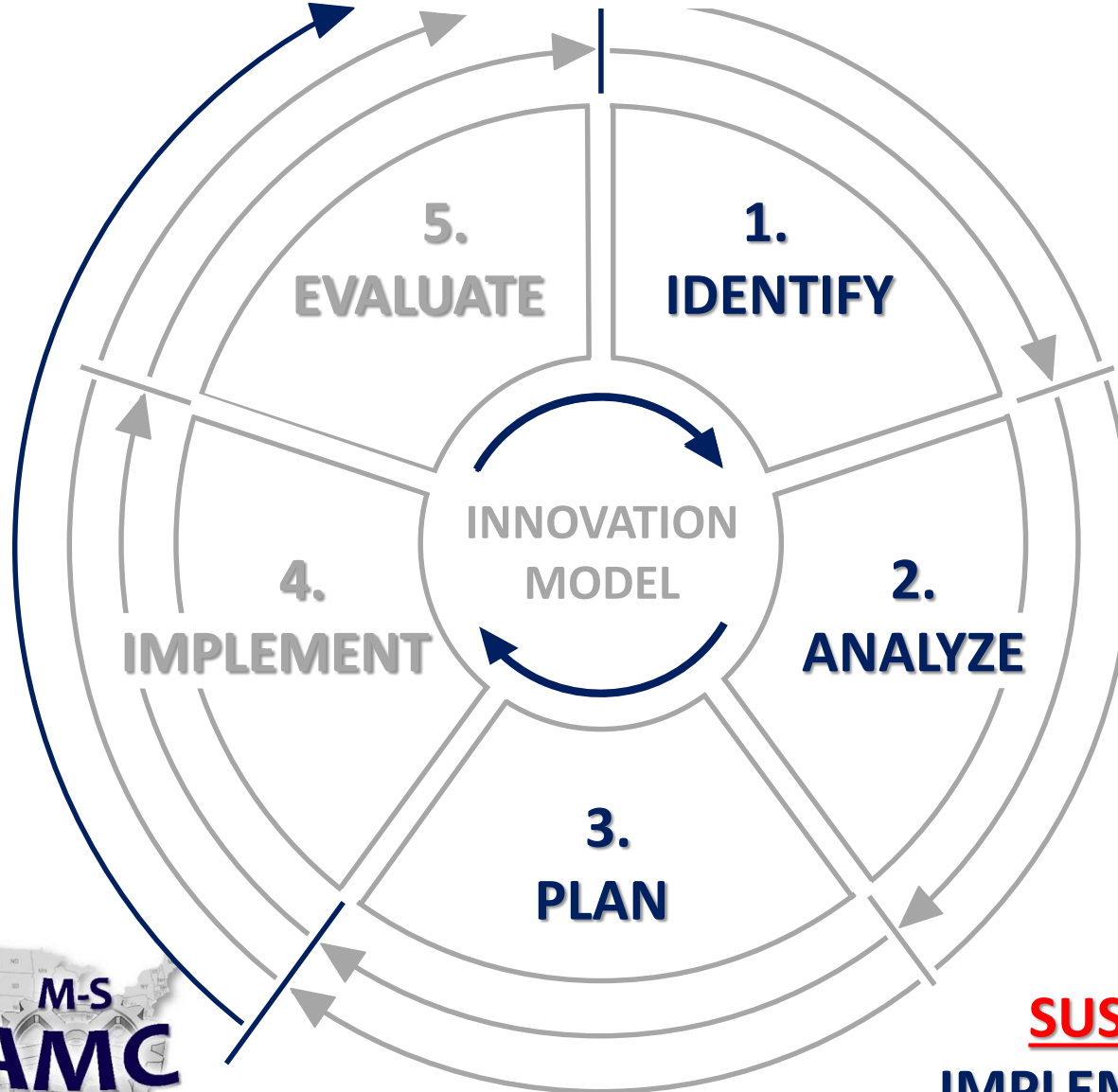


IMPROVED
IMPLEMENTATION

INNOVATION CYCLE 3 – SUSTAINED IMPLEMENTATION & TIMING



INNOVATION CYCLE 3 – SUSTAINED IMPLEMENTATION & TIMING



QTR	YEAR
4	2013
1	
2	
3	
4	2014
1	
2	
3	
4	2015
1	
2	
3	
4	2016
1	
2	
3	



SUSTAINED
IMPLEMENTATION

OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN
4. **“SEEING the FUTURE” – PRESENT and PREFERRED STATE**
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

“SEEING THE FUTURE”

Most people
will now agree
the best way
to “know”
the future
is to
CREATE IT . . .

1. **IDENTIFY**

[A] Customer Requirements

[B] Present & Preferred State

[C] Evaluation Criteria

PRESENT STATE:

PREFERRED STATE:



STUDENTS and FACULTY

PRESENT STATE:

STUDENTS

- * Directed learners
- * Pace of learning set by instructor
- * Student success grounded in theory

FACULTY

- * Central Figure for Learning
- * Creator of Learning Resources
- * Lecturer / Subject Matter Expert
- * Independent, self-sufficient
- * General Professional Development

PREFERRED STATE:

- * Self-directed learners
- * Pace of learning set by skills acquisition
- * Student success grounded in competence

- * Central Figure for Learning
- * Institution Provides Resources for Instructor
- * Coach / Mentor / Learning Process Expert
- * Collaborative: companies, other faculty, etc.
- * Targeted Instructor Certification



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

PEDAGOGY and ASSESSMENT

PRESENT STATE:

THE APPROACH [PEDAGOGY]

- * Typically Component focused
- * Troubleshooting to solve a problem
- * Emphasis on (memory) recall
- * Learn about multiple systems . . .

[but generally]

PREFERRED STATE:

- * Predominantly Integrated Systems focused
- * Troubleshooting through system analysis
- * Emphasis on information application
- * Learn 1 System completely . . .

[then apply to others]

ASSESSMENT

- * Institution specific (Locally)
- * Classroom Competence
- * Common National Standard
- * On-the-Job Competence



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

CURRICULUM

PRESENT STATE:

CURRICULUM

- * The content is “the thing”
- * Generalized outcomes
- * Periodic course Improvement
- * Instructor dependent content
- * Peer reviewed
- * Local course development
- * Capstone projects with some courses

PREFERRED STATE:

- * The context is “the thing”
- * Competency based outcomes
- * Continuous course improvement
- * Instructor independent content
- * National/International Standard
- * Collaborative course development
- * Mechapracticum assess progress by semester



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

EQUIPMENT and LAB ENVIRONMENT

PRESENT STATE:

EQUIPMENT

- * “School sized” components
- * Designed by/for schools

LAB ENVIRONMENT

- * Traditional “school-like”
- * School safety protocols
- * Component based
- * Single purpose labs

PREFERRED STATE:

- * “Industry sized” integrated systems
- * Designed by Industry partners

- * “Industry-Like”
- * Industry safety protocols
 - ! Arc flash rules !
- * Integrated system based
- * Multi-purpose labs



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

LEADERSHIP

PRESENT STATE:

LEADERSHIP

- * Develop/Hold/Employ Vision
- * Drive/Measure Degree Completion
- * Lead periodic Improvement

PREFERRED STATE:

- * Facilitate Vision development
- * Empower staff to operationalize Vision
- * Determine new metrics for:
 - Student Classroom Competency
 - Student Workplace Competency
- * Lead development of a process for continuous improvement
- * Re-orient expenditure decisions based on new criterion for success



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. **THE WORK PLAN . . .**



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

OVERVIEW TOPICS

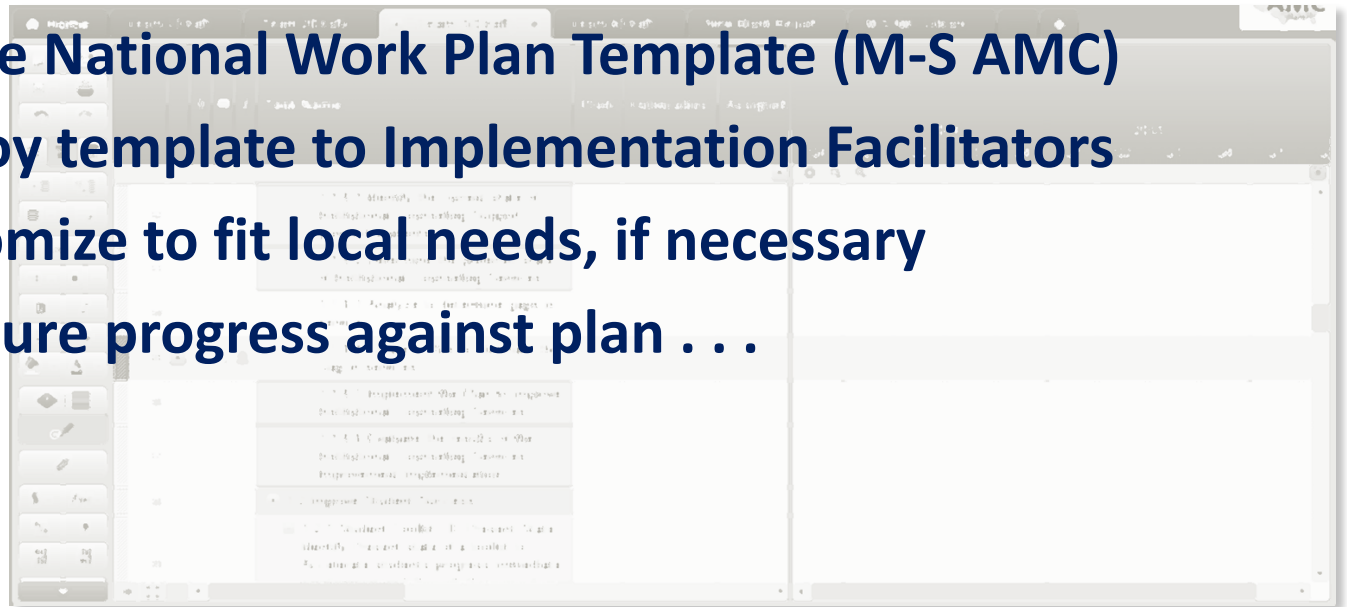
1. MISSION & FOCUS
2. ORGANIZATION MODEL
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. WHEN
4. “SEEING the FUTURE” – PRESENT and PREFERRED STATE
5. THE WORK PLAN . . .



**MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM**

THE WORK PLAN

1. Use a Collaborative Planning Tool – SmartSheet (All)
2. Develop appropriate **“Consensus Based Recommendations”** for work plan steps (I-Teams)
3. Create National Work Plan Template (M-S AMC)
4. Deploy template to Implementation Facilitators
5. Customize to fit local needs, if necessary
6. Measure progress against plan . . .



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM

OVERVIEW TOPICS

1. MISSION & FOCUS
2. ORGANIZATION MODEL
3. THE PROCESS
 - a. WHO
 - b. WHAT
 - c. HOW
 - d. ' ...
4. ... – PRESENT and PREFERRED STATE
5. ...



MULTI-STATE
ADVANCED MANUFACTURING CONSORTIUM