

# CATALYST CONNECTION

## Center Overview *and* Technology- Regional Innovation Cluster Overview (T-RIC)

November 14, 2011

Petra Mitchell  
President and CEO

a NIST | Network  
MEP | Affiliate



# Introduction- Catalyst Connection

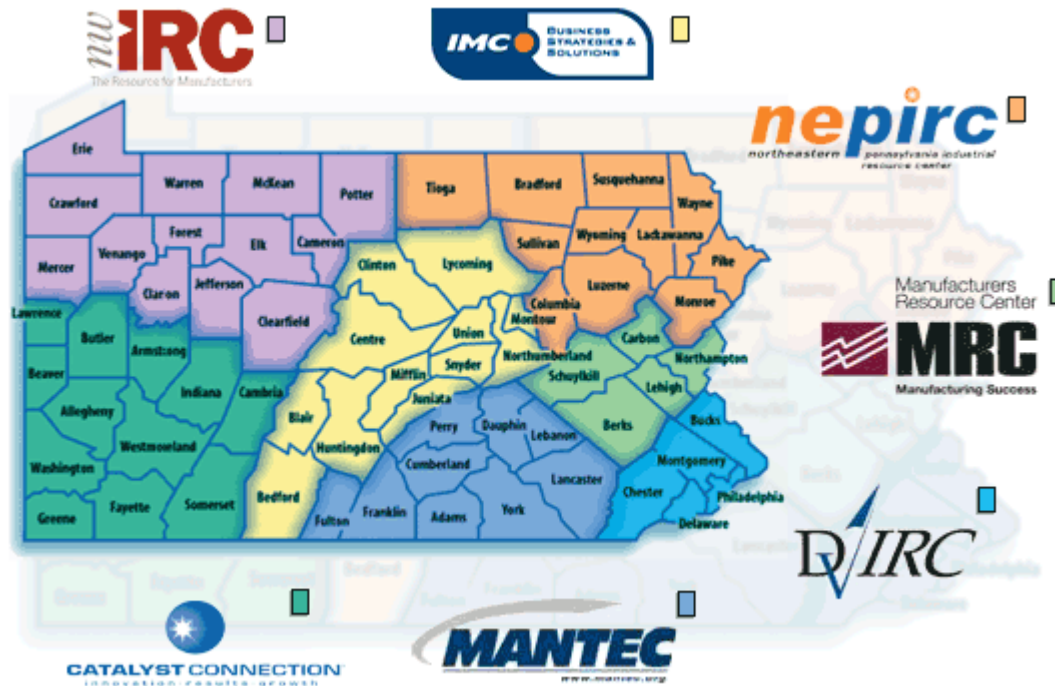
## Our Mission:

*We help manufacturers compete in a global economy, grow their business and create jobs.*

- Provides awareness, training and consulting
- Private non-profit, economic development corporation, established in 1988 and employs 25 people
- Receives funding from PA Industrial Resource Center (IRC) program and federal Manufacturing Extension Partnership (MEP) program



# Part of a Statewide Network



IRC Five Year Impacts:

- ü 4,600 clients served
- ü \$5.8B impact
- ü 8,000 Jobs Created
- ü 24,000 Jobs Retained

## The Region That We Serve

- The Manufacturing sector:
  - Approximately 3500 establishments
  - Employing over 100,000 people
  - Contributing over \$13 billion to the statewide economy, the largest sector of the economy
- 25 universities and colleges, including Carnegie Mellon and University of Pittsburgh
- 120 corporate and federal R&D Centers
- Diverse economy with lower than average unemployment
- Large concentration of corporate headquarters
- Within 500 miles of 63% of US Industrial Output
- Population of approximately 2.6 million

## Southwest PA, 12 Counties, Industry Sectors

NAICS Industrial Code	2008 GSP (\$M)	2008 Employment
<b>Manufacturing</b>	<b>\$13,976</b>	<b>114,249</b>
Real Estate and Rental Leasing	\$13,570	14,887
Health Care and Social Assistance	\$12,852	208,958
Public Administration	\$10,407	155,500
Professional, Scientific and Technical Service	\$9,585	75,959
Finance and Insurance	\$8,911	60,371
Retail Trade	\$7,493	149,848
Wholesale Trade	\$7,334	54,869
Construction	\$5,314	66,674
Utilities	\$5,295	7,725
All Other (9 Sectors, AVG GSP \$3,197; AVG employment 45,279)	\$28,788	407,509
Agriculture	\$345	0.6%

# Catalyst Connection: Impacts

## 2010 Economic Impacts:

Sales:	\$199 million
Savings:	\$ 24 million
Investment:	\$ 28 million
Jobs:	1,071



**1,071 jobs contribute approximately \$1.7 million of  
personal income tax**

# Catalyst Connection: Revenues

## Revenues for 2010-2011:

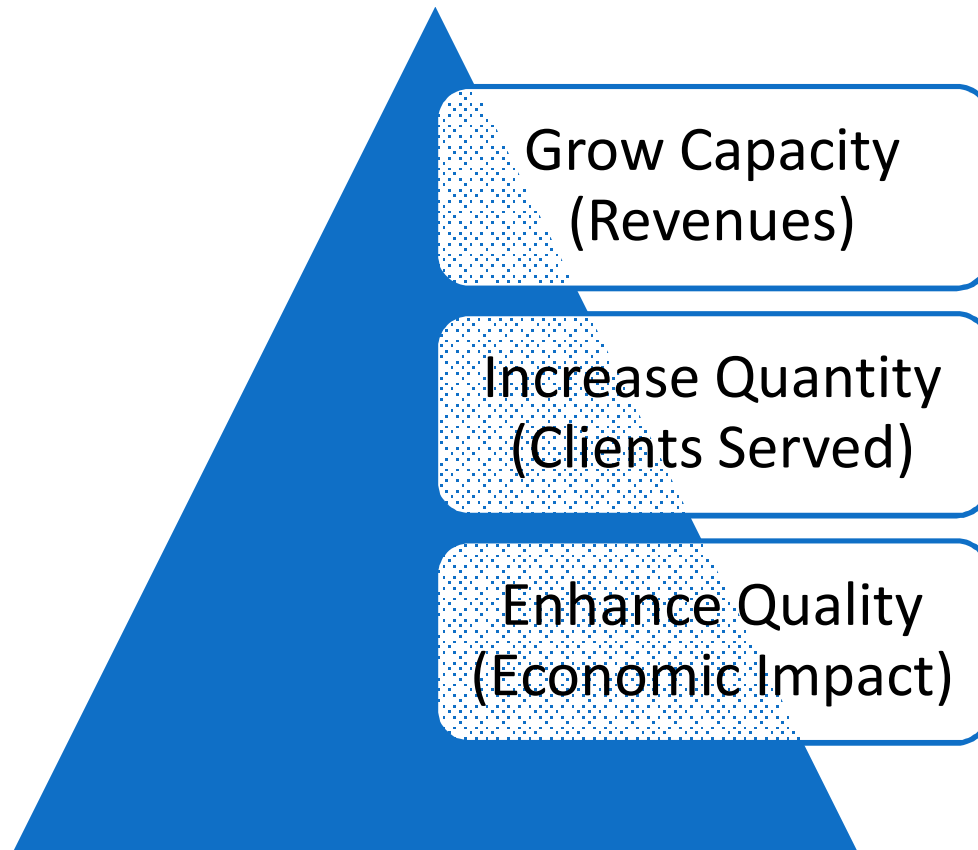
- PA DCED: \$1.4 million \*
- US DoC: \$1.1 million
- Fees: \$1.7 million
- Other \$0.2 million

**\$1.4 million of state  
investment leveraged  
\$3.0 million of additional  
funding**

\* A 60% reduction from 2007



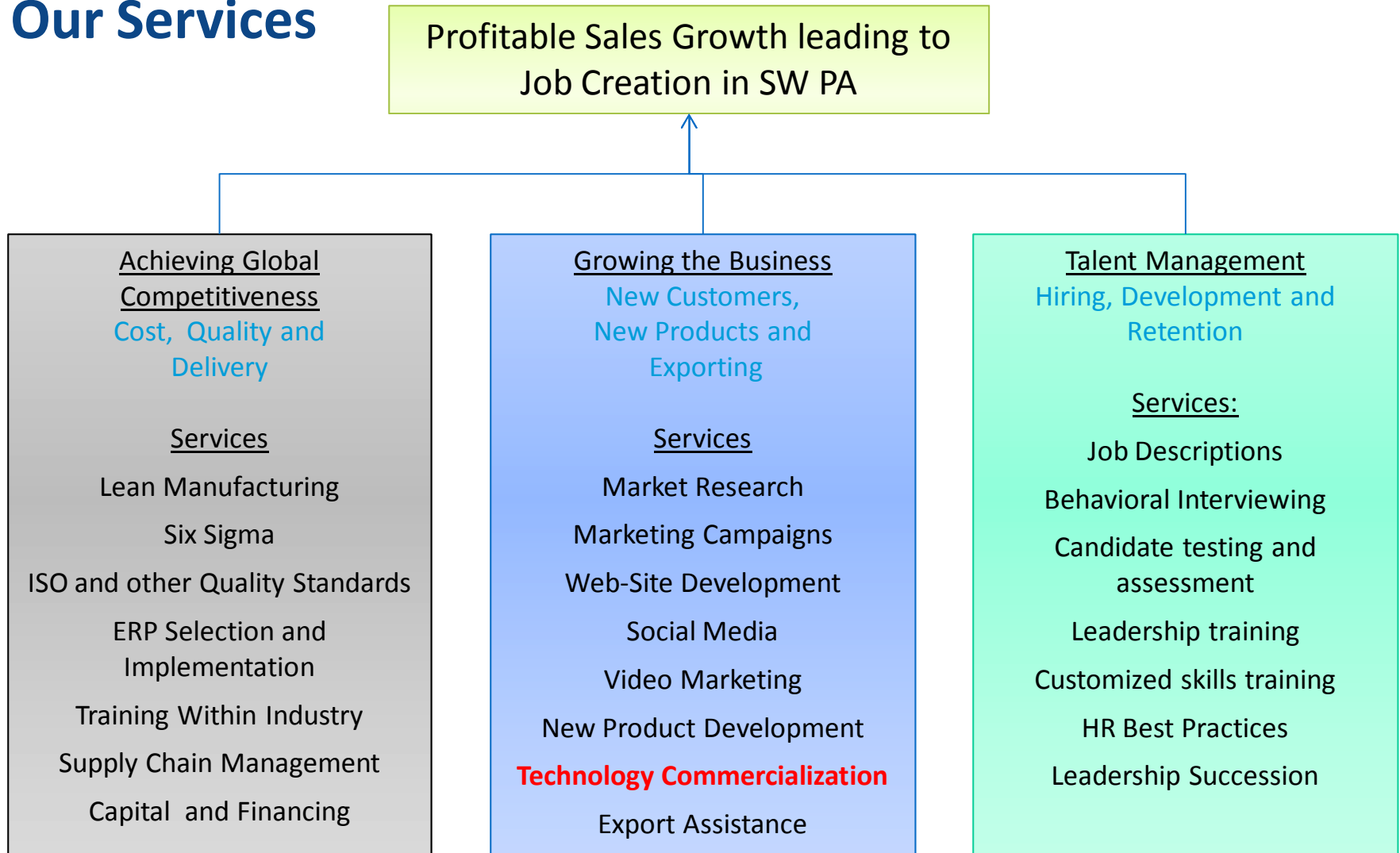
# Our Strategic Objectives and Metrics

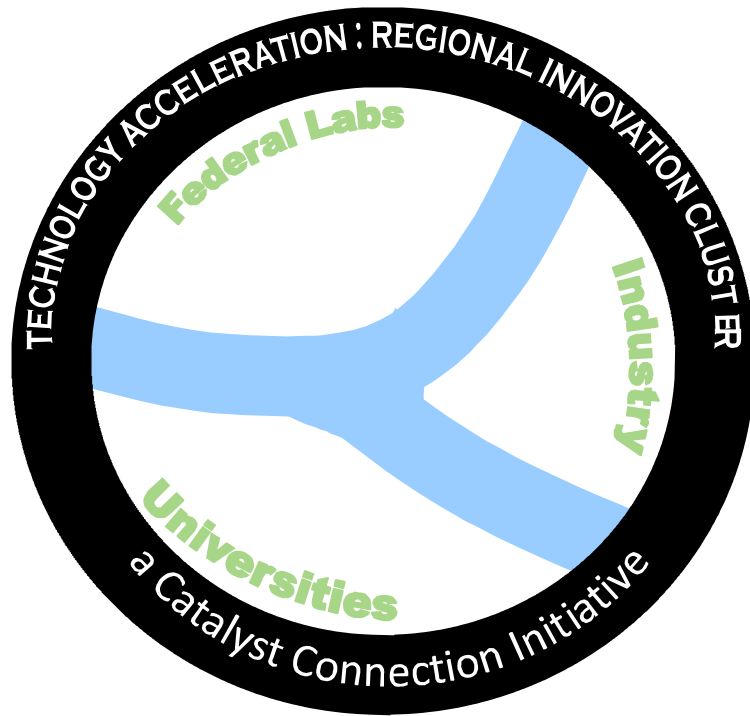


# Our Strategic Priorities

- Serve manufacturers by adjusting to meet their needs
  - New skills and expertise, collaboration, internal innovation
  - **New ! [www.mymanufacturingconnection.org](http://www.mymanufacturingconnection.org)**
- Expand business opportunities available to our clients
  - Supply chain, Universities and technology, Global business
  - **New ! Marcellus-Shale “Hub and Spoke” Supply Chain**
- Forge partnerships to bring new resources to our clients
  - Economic Development, Private service providers, New funding sources
  - **New ! Southwest Pa PREP Partners**

# Our Services





# CATALYST CONNECTION T-RIC Initiative

Connie Palucka  
T-RIC Project Manager  
Managing Director, Business Growth Services



Your Strategic Partner for Manufacturing Growth

# Regional Innovation Cluster Consortium for Technology Acceleration (T-RIC)

## T-RIC Objective

The project team proposed an initiative focused on developing a Regional Innovation Cluster Consortium Model for Technology Acceleration that works together to facilitate technology transfer and product commercialization within its regional small manufacturers.

## T-RIC Partners

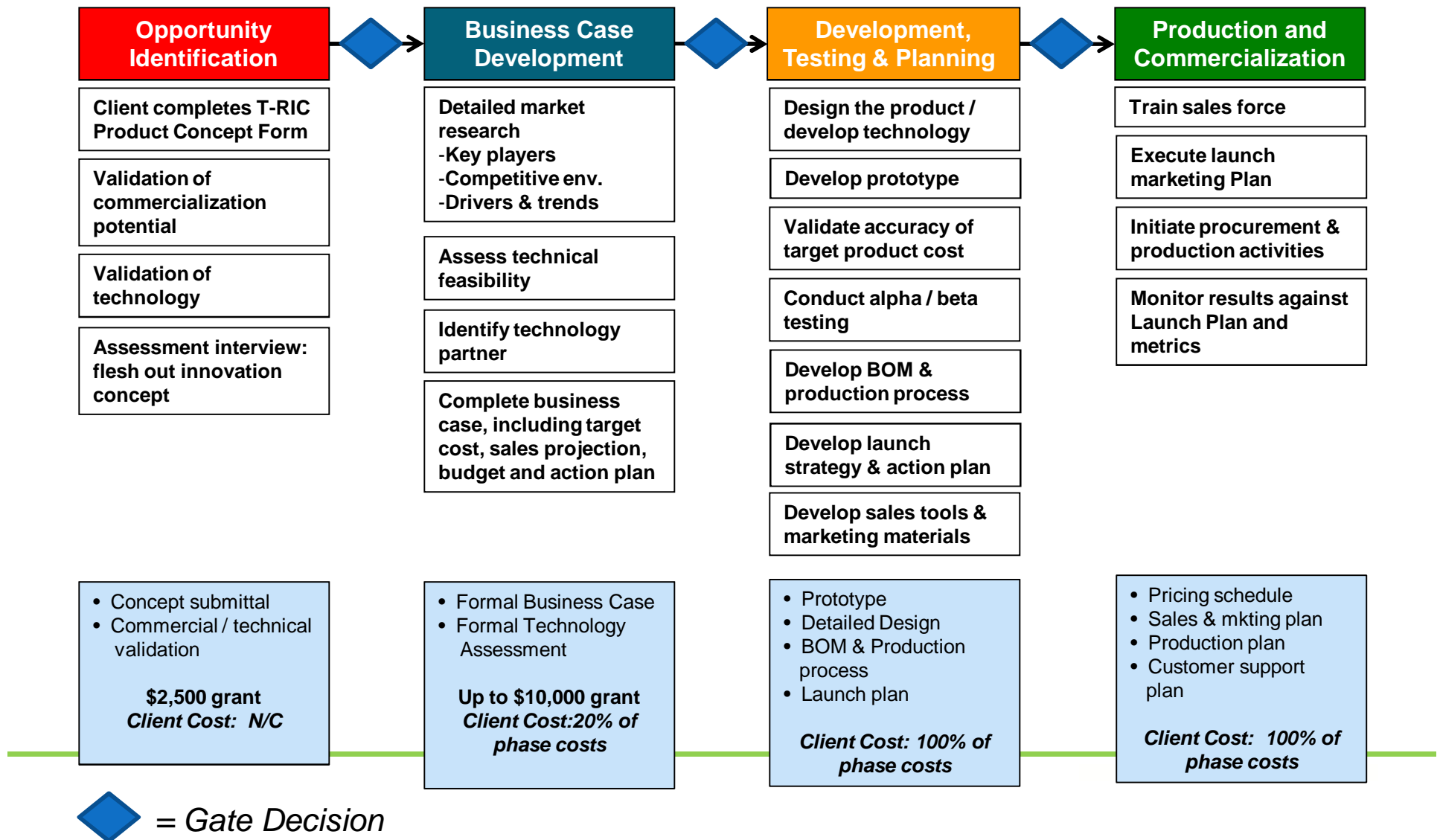
### The Consortium consists of:

- University of Pittsburgh
- National Energy Technology Laboratory (NETL)
- Innovation Works
- PA Nanomaterials Commercialization Center
- Advanced Manufacturing Technology Ventures, LLC (AMTV)

## T-RIC Initiative Highlights of Activities

- Regular meetings of engaged and participatory Consortium to review project and client activities
- Reviewed and initiated 9 pilot projects
- Supporting the marketing of four university based technologies available for commercialization
  - Video: University of Pittsburg/Office of Technology Management / A Sensor System to Detect Bridge Scour
- Hosted First Annual Energy and Manufacturing Conference
- Developing tools and methods for further enhancing product commercialization, including adaptation of Innovation Engineering tools

# T-RIC Product Innovation Process (System for Innovation)



## Technology Acceleration Case Study

### Cannon Boiler Works



Cannon was approached by the Gas Technology Institute to commercialize an advanced Transport Membrane Condenser System which will increase boiler efficiency from the current industry standard of 89%, to a remarkable 95%.



Cannon's new clean room for assembling the Ultramizer's ceramic tube bundles



Pilot installation at City Brewing Co., Latrobe, PA

## T-RIC Project Key Elements of Success

- Past experience with New Product Development projects by Project Manager, Connie Palucka
- Strong support from University of Pittsburgh Dean of Engineering, long time member of our Board of Directors
- Availability of Innovation Works (a Ben Franklin Technology Partner) Innovation Adoption Grant
- Engaged and participatory consortium members
- Growing and innovative small manufacturing firms
- NIST MEP t- CAR funding

## Thoughts on MEP System

- Continue federal agency collaborations, and include MEP as required / recommended partner
- Continue to collect and report project impact data such as sales, investments, cost savings and jobs
- Establish strategic objectives and system wide goals to create a common purpose and direction
- Align initiatives, tools and professional development
- Report on progress towards goals and engage Center staff and management as to how best to achieve
- Celebrate successes, highlight activities in support of the goals

## For More Information

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